

A faunistic review of the crab spiders (Araneae, Thomisidae) from the Mountains of South Siberia

by Dmitri V. LOGUNOV and Yuri M. MARUSIK

Abstract

Faunistic and taxonomic data on 46 thomisid species of Thomisidae recorded from the Mountains of South Siberia are presented with records of two additional species from adjacent regions. Two species are described as new: *Xysticus seserlig* sp. n. (only male from Tuva) and *X. bermani* sp. n. (male and female from North-East Yakutia). The unknown female of *X. mugur* MARUSIK, *X. sjostedti* SCHENKEL and *X. nenilini* MARUSIK, the unknown male and the vulva of *Oxyptila utotchkini* ONO, MARUSIK & LOGUNOV, poorly known species *O. orientalis* KULCZYNSKI, *X. ferruginoides* SCHENKEL, *X. rugosus* BUCKLE & REDNER, *X. sibiricus* KULCZYNSKI are redescribed and illustrated. Two species (*X. ferruginoides* SCHENKEL and *X. hedini* SCHENKEL) are being recorded for the first time in Russia. Two new synonyms and one new combination have been established: *Oxyptila balkarica* OVTSHARENKO, 1979 syn. n. = *O. orientalis* KULCZYNSKI, 1926; *O. balkarica basegai* ESJUNIN, 1992 = *O. orientalis basegai* comb. n.; *Xysticus obtusifurus* TANG & SONG, 1988 syn. n. = *X. soldatovi* UTOTCHKIN, 1968. Several previous misidentifications of South Siberian thomisids are corrected.

Introduction

Little is known about the crab spiders that occur in the Mountains of South Siberia. No extensive collection of Thomisidae, or any other families, from this territory was maintained at any of the museums within Russia. Because of this situation, only scattered data on Thomisidae from this region of interest were to be found. About 25 species, exclusive of dubious records (as discussed below), have been reported from Transbaikalia (ODENWALL, 1901; KULCZYNSKI, 1901; UTOTCHKIN, 1968; SHTERNBERGS, 1981; IZMAILOVA, 1978, 1980, 1989; VERZHUTSKI *et al.*, 1985; DANILOV, 1990, 1993; DANILOV & KURTVOVA, 1991).

There is only scanty information on the thomisid fauna of Tuva, Khakassia and Altay from the following works (L. KOCH, 1879; KULCZYNSKI, 1901; SHTERNBERGS, 1977; HIPPA *et al.*, 1986; MARUSIK, 1989a; MARUSIK & CHEVRIZOV, 1990; LOGUNOV, 1990, 1992a, b). In all, 29 thomisid species were documented from the study area (mountains of S-Siberia), plus another 15 species, recognized here as dubious records (see below).

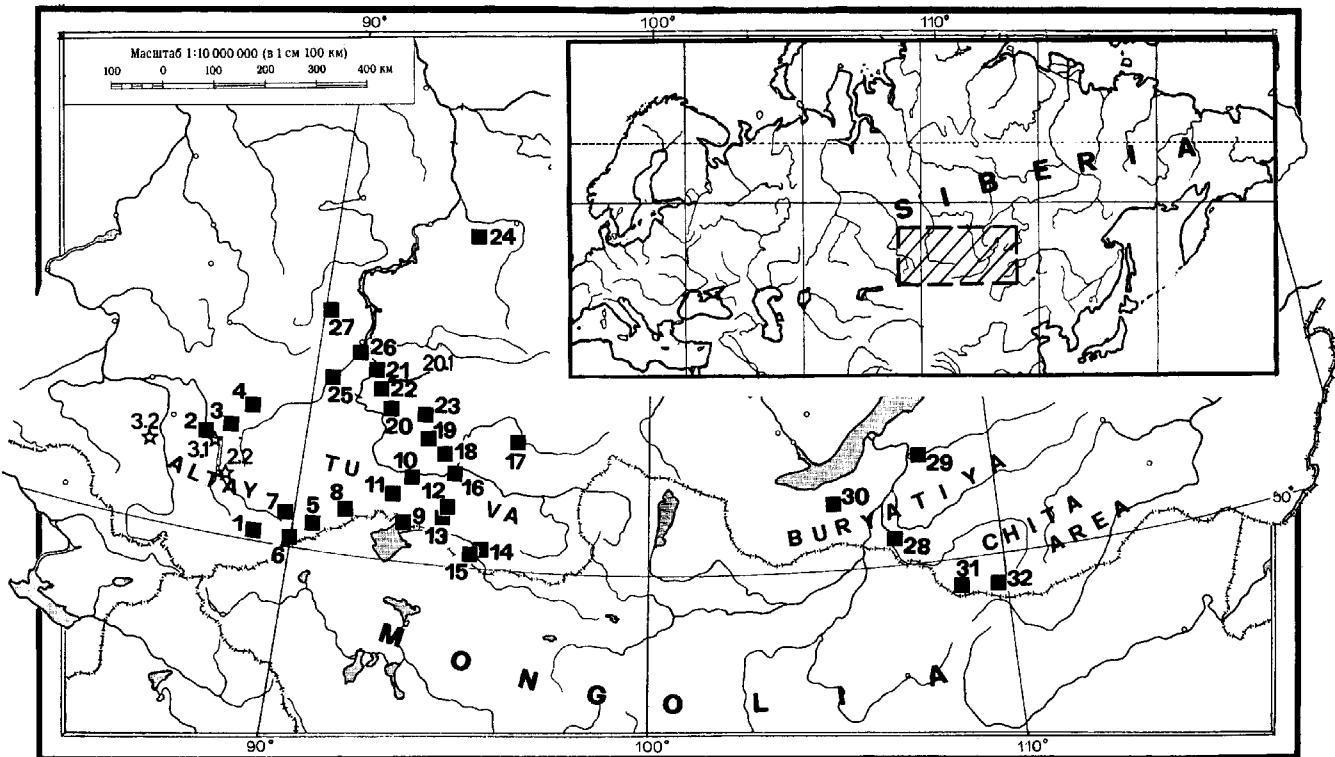
The aim of the present paper is to bring together all

references and original data on the Thomisidae of South Siberia. Only references to previous records are involved. Collection localities and general distribution for each species are included. For certain species, comments are presented regarding taxonomic status and habitat preference. In four cases, *X. mugur* MARUSIK, 1990, *X. nenilini* MARUSIK, 1989, *X. sjostedti* SCHENKEL, 1936 and *O. sakhalinensis* ONO, MARUSIK & LOGUNOV, 1990, previously unknown sexes are described. One species, *X. seserlig* sp. n., is described; another, *X. ferruginoides* SCHENKEL, 1963, was found in the Russian fauna for the first time.

Material and methods

This study covers the mountain territory from Altay and Kuznetskiy Alatau Range in the west, eastward to Chita Area and from about latitudes 50°N to 55-60°N degrees North (see map), which is usually described as the Mountains of South Siberia.

Most of the material (80-85 %) consists of the specimens collected by the first author (D.L.). Beside this, the collections of the Zoological Museum of the Biological Institute, Novosibirsk, made in different years, have been incorporated. For two species, *Oxyptila sakhalinensis* ONO, MARUSIK & LOGUNOV, 1990 and *Xysticus bermani* sp. n., new and additional information based on the materials derived from Sakhalin and Yakutia respectively is presented. In all, the material studied consists of over 530 specimens belonging to 39 species. Six species are additionally included from the above mentioned literature. So, the complete list of species numbers 46 thomisid species, which are known from the Mountains of South Siberia beyond all doubts. All the above material has been distributed among the collections of the Zoological Museum of the Biological Institute, Novosibirsk (BI), the Institute for Biological Problems of the North, magadan (IBPN), the Royal Belgian Institute for Natural Science, Brussel (RINS) and the Zoological Museum of the Moscow State University (ZMMU).



Map 1. – Map of localities in the South Siberia. GORNIY ALTAY: 1. Kosh-Agach Vill.; 2. Teletskoye Lake, Artybash Vill.; 3. Sodra Lake. - KEMEROVO AREA: 4. Gornaya Shoriya, Sherebesh Vill. - TUVA: 5. 5-8 km SE of Mugur-Aksy Vill.; 6. 3-5 km N of Kyzyl-Khaya Vill.; 7. 45-50 km W of Mugur-Aksy Vill., upper reaches of Kargy River; 8. 25-40 km WNW of Solchur Vill.; 9. North Bank of Ubsu-Nur Lake; 10. 5-7 km E of Shagonar Town; 11. 8 km S of Torgalyk Vill.; 12. Environs of Chagytay Lake; 13. Environs of Khol'-Oozhu Vill.; 14. Environs of Erzin Vill.; 15. 20-30 km W of Erzin Vill., Ontchalaan Mt. Range; 16. Environs of Kyzyl Town; 17. Environs of Azas Lake; 18. 5-7 km NW of Seserlig Vill.; 19. 10 km NW of Shiving Vill. - KRASNOYARSK PROVINCE (south part): Yermakovskoye Dist.: 20. Oiskiy Mt. Range, 8-10 km S of Oiskoye Lake, Oiskiy Pass, 21. Sayano-Shushenskiy Vill. - KHAKASSIA: 25. Environs of Brikchul' Vill.; 26. 40 km SE of Bely Yar Vill.; 15-18 km E of Novorossiyskoye Vill.; 27. 1 km S of Kommunar Vill. - BURYATIA: 28. Duren Vill.; 29. Environs of Ulan-Ude Town; 30. Tayozhiniy Vill. - CHITA AREA: 31. 60-65 km SW of Kyra Vill., Sokhondo State Reserve; 32. Environs of Kyra Vill.

The abbreviations accepted in the descriptions are those used by ONO (1988), except as follows: d.- dorsally; v.- ventrally; pr.- prolaterally; rt.- retrolaterally; ap.- apically. The sequence of leg segments in the measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. Names of the authors are abbreviated as D.L. and Y.M., D. LOGUNOV and Yu. MARUSIK respectively.

All measurements are in mm. Names for distributional patterns are those proposed by GORODKOV (1984). In the text, each locality is followed by the respective number put in square brackets and refers to the number on the map.

Districts of Tuvan and Khakassian Republiks are abbreviated in the text as follows: TUVA: TER- Erzinskiy Distr.; TKZ- Kazylykiy Distr.; TMT- Mongun-Taiginskii Distr.; TOV- Ovyurskiy Distr.; TPKPi- Khemskii Distr. TTA- Tandinskii Distr.; TTK- Tes-Khemskii Distr.; TTD- Todzhinskiy Distr.; TUK- Ulug-Khemskii Distr.; KHAKASSIA: KAT- Altayskiy Distr.; KAS- Asskizskii Distr.; KSH- Shirinskii Distr.

List of species

Coriarachne depressa (C.L. KOCH, 1837)

Material examined:

TUVA: 1m (BI), TTD, Azasskiy Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.

Distribution:

Trans-Eurasian species, previously recorded by IZMAILOVA (1989) and DANILOV (1993) from Irkutsk Area and Buryatia respectively. The easternmost point of the range is North Sakhalin (MARUSIK *et al.*, 1992b).

Heriaeus melloittei SIMON, 1886

Material examined:

KHAKASSIA: 3f (BI), KAS, 8 km E Birikchul' Vill. [25], 1200-1300 m elev., 16-18.07.1990, D.L. - TUVA: 1f (BI), 1f (RINS), TKZ, 23-25 km E of Kyzyl Town

[16], 700 m elev., 30.06.1990, D.L.; 3m, 4f (BI), TER, 30 km W of Erzin Vill. [15], Yamaalyg Mt. range, 1350 m elev., 11.07.1993, D.L.; 3m, 6f (BI), TER, Tere-Khol Lake, 1150-1200 m elev., 12.07.1993, D.L.; 1m (BI), TPK, West Sayany, Kurtushibinskiy Mt. Range, 10 km NW of Shivilig Vill. [19], 1100-1200 m elev., 6-8.07.1990, D.L.; 1m (BI), 1m (RINS), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06-2.07.1989, D.L.; 1f (BI), TTK, 8 km NE of Khol'-Oozhu Vill., 1-2 km W of Aryskanny-Khem River, near Alak Mt. [13], 1300-1800 m elev., 14.07.1989, D.L. CHITA AREA : 1m, 1f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1300 m elev., 14-15.06.1991, D.L.

Distribution :

East-Palaearctic range : Tuva, Khakassia, Buryatia (DANILOV, 1993), Chita Area; Japan, Korea and China (ONO, 1988). Western limit of distribution is unknown. It could be West Siberia or the Urals. This species and *H. oblongus* SIMON, 1918 (Europe) on the West appear to be vicariants.

Habitat :

Dweller of grass in meadows and steppes.

Lysiteles maius ONO, 1979

Material examined :

GORNIY ALTAY : 1f, 1f (BI), Turotchakskiy Distr., Iogatch Vill., near Artybash Vill. [2], 10.06.1992, A.A. ALEKSEEV.

Distribution :

From Nepal on the South eastward to Japan and Sakhalin (ONO *et al.*, 1990) and northwest to Altay. Within South Siberia, it was recorded by LOGUNOV (1990) from the West Sayany Range (current locality [22]) and by DANILOV (1993) from Buryatia.

Habitat :

Collected by sweeping vegetation in mixed forests (taiga).

Misumena vatia (CLERCK, 1758)

Material examined :

GORNIY ALTAY : 1m (BI), Cherga Vill. (80 km SW of Gorno-Altaisk) [3.2], 19.06.1989, A.V. Marchenko. - KHAKASSIA : 1f (BI), KAS, 10-15 km SW of Birik-chul' Vill. [25], 1200-1300 m elev., 17.07.1990, D.L. TUVA : 2m (BI), TPK, West Sayany, Kurtushibinskiy Mt. Range, 10 km NW of Shivilig Vill. [19], 1100-1200 m elev., 6-8.07.1990, D.L.; 4m, 3f (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06-2.07.1989, D.L.; 6m, 2f (BI), TTD, Azas Reserve, en-

virons of Azas Lake [17], 19-23.06.1989, D.L. - BURYATIA : 2f (BI), Kyakhta Distr., Duren Vill. [28], 23.06.1986, B.P. ZAKHAROV. CHITA AREA : 3f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 2.06-12.07.1991, D.L. & S.E. TCHERNYSHOV.

Distribution :

Holarctic, boreo-nemoral (polyzonal ?) range. Common in South Siberia from Altay, Tuva, eastward to Sakhalin, Kurile Islands (ONO *et al.*, 1990), Japan (ONO, 1988) and Korea (KIM, 1991), while in North Siberia it was found only in Yakutia (north to the middle Lena) (65°N) (MARUSIK *et al.*, 1993), and from a few sites in the magadan Area (Middle Cisokhotia), and the upper Kolyma (MARUSIK, 1988; MARUSIK *et al.*, 1992a). From South Siberia it was reported from Buryatia (Ulan-Ude and Burdukovo) (ODENWALL, 1901; KULCZYNKI, 1901; DANILOV, 1993) and Irkutsk Area (IZMAILOVA, 1989).

Habitat :

It is a common dweller of meadows and forest glades.

Misumenops tricuspidatus (FABRICIUS, 1775)

Comments :

First recorded from South Siberia (Irkutsk Area) by IZMAILOVA (1989), but this record was based on indeterminable juvenile specimens. A second report of *M. tricuspidatus* attended by illustrations by DANILOV (1993) from Buryatia proved the presence of this species in South Siberia. So, this species displays a Trans-Palaearctic distributional pattern.

Oxyptila arctica KULCZYNKI, 1908

Material examined :

GORNIY ALTAY : 1m (BI), Kosh-Agach Vill., Kuray [1], 26.07.1964, A.P. KONONENKO.

Distribution :

Holarctic boreal range. It was recorded some times ago from Altay (HIPPA *et al.*, 1986)(Katanda [1]) and this is regarded as the southernmost record.

Oxyptila atomaria (PANZER, 1801)

Material examined :

TUVA : 2f (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m elev., 24-25.07.1989, D.L.

Distribution :

Trans-Eurasian temperate range, earliest record in Buryatia (Khamar-Daban Range) made by IZMAILOVA (1989) as *Ox. horticola*.

Habitat :

Captured in litter of mixed forests.

Oxyptila brevipes (Hahn, 1826)*Material examined :*

GORNYI ALTAY : 1f, Teletskoye Lake, Artybash Vill., Tay Mt. [2], 500 m elev., 29.06.1990, A.A. ALEKSEEV. - KHAKASSIA : 1f (BI), KAS, 10-15 km SW of Birikchul' Vill. [25], 1200-1300 m elev., 17.07.1990, D.L.

Distribution :

European-Siberian range, apparently the Khamar-Daban Range, Buryatia (IZMAILOVA, 1989) is the easternmost point of the range.

Habitat :

Specimens have been collected on sloping stony steppe.

Oxyptila orientalis KULCZYNSKI, 1926

Oxyptila balkarica OVTSHARENKO, 1979 : 45-46, figs. 7-9.
syn. n. (Holotype (m) and paratypes (mm, ff) from the
Zoological Institute, St.Petersburg, examined) (figs. 1, 2)

Material examined :

TUVA : 1m (BI), TER, environs of Erzin Vill., 1000 m elev., Erzin River Valley [14], 23-26.05.1990, D.L.; 1f (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m elev., 24-25.07.1989, D.L. CHITA AREA : 4f (BI), Kyra Distr., 60 km SW of Kyra Vill., Sokhondo State Reserve [31], 1100-1700 m elev., 6-16.06.1991, D.L.

Comments :

Comparing males from Kamchatka (delivered to us by Ms T. PAVLENKO), Magadan Area, North Sakhalin and Caucasus, and females from Caucasus and Magadan Area (cf. figs...) leads us to the conclusion that all are conspecific, and that *O. orientalis*, which was described from a single female from Kamchatka, and the well-known *O. balkarica* should be synonymised.

Note :

A closely related subspecies of *O. orientalis* was recently described from North Ural as *O. balkarica basegica* (ESJUNIN, 1992). Because of the species name synonymy, the subspecies *O. b. basegica* is transferred to *O. orientalis basegica* comb. n.

Distribution :

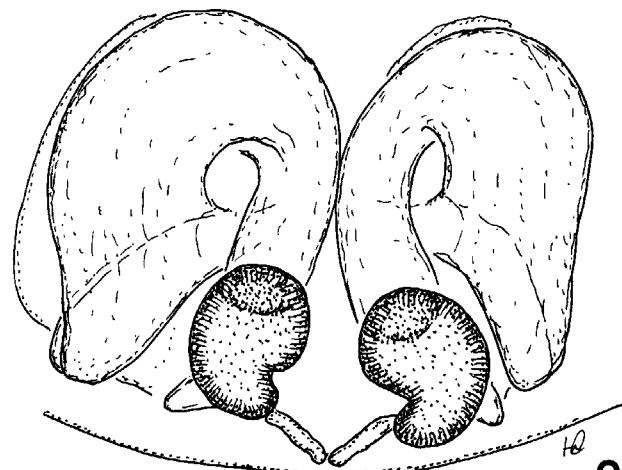
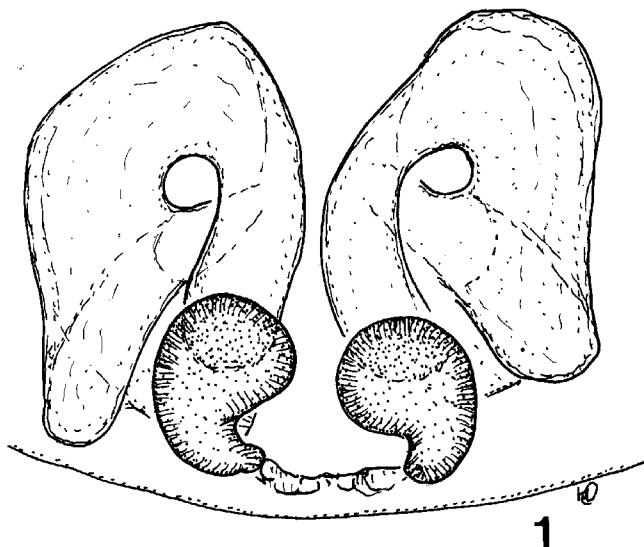
From Caucasus (OVTSHARENKO, 1979) eastward to Kamchatka, north to Ural (ESJUNIN, 1992) and Magadan Area (MARUSIK *et al.*, 1992a), southeast to Sakhalin (ONO *et al.*, 1990).

Oxyptila praticola (C.L.KOCH, 1837)*Comments :*

This species is absent from the material studied. It was reported from Irkutsk Area (environs of Bratsk Town) by UTOTCHKIN (1960).

Oxyptila rauda SIMON, 1875*Material examined :*

KHAKASSIA : 1f (BI), KAS, 3-5 km W of Birikchul'



Figs. 1-2. - *Oxyptila orientalis*, epigyne, dorsal view, specimens from Lagodekhi (Georgia, Caucasus) and upper Kolyma reaches (North-east Siberia), respectively. Scale - 0.1 mm.

Vill. [25], 16-18.07.1990, D.L.; 2f (BI), KSH, 1 km S of Kommunar Vill. [27], 1300-1400 m elev., 23.07.1990, D.L. - KRASNOYARSK PROVINCE: 1f (BI), West Sayany, Oiski Mt. Range, 8-10 km S of Oiskoye Lake, Oisky Pass [20], 1800 m elev., 27.06-10.07.1990, D.L.

Distribution :

European-West Siberian temperate Range. Yenisey (up to 62°N) (HIPPA *et al.*, 1986) and West Sayany are the easternmost points of distribution.

Habitat :

All studied specimens have been collected from stony, mountain tundra.

Oxyptila scabricula (WESTRING, 1851)

Comments :

This species is absent from the material studied here. Previously known from Irkutsk Area (environs of Bratsk Town) (UTOTCHKIN, 1960).

Oxyptila sincera KULCZYNSKI, 1926

Material examined :

CHITA AREA: 1m (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1300-1400 m elev., 21-25.06.1991, S.E. TCHERNYSHOV.

Distribution :

Siberio-American boreo-nemoral range. Previously recorded from middle Yenisey, through Evenkia (ESKOV, 1988), Yakutia (from 62°N north to 67°N) (MARUSIK *et al.*, 1993), northeast to East Cisokhotia and Kamchatka (type locality), and southward to Khabarovsk Province (LOGUNOV, 1992b) and Japan (ONO, 1988). From South Siberia previously known from Krasnoyarsk Province, Sosnovka Vill. [24, see map] (IZMAILOVA 1989).

Habitat :

In litter of deciduous and mixed forests.

Oxyptila trux (BLACKWALL, 1846)

Material examined :

TUVA: 1f (BI), TTO, Azas Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L. - KRASNOYARSK PROVINCE: 1f (BI), West Sayany, 25-30 km N of Aradan Vill. [23], 1600 m elev., 9.07.1990, D.L.

Distribution :

A trans-Eurasian temperate species and it was earlier recorded in Buryatia (Barguzin Reserve and Khamar-

Daban Range) by SHTERNBERGS (1981) and IZMAILOVA (1989). The easternmost point of distribution is Shumshu Island (ONO *et al.*, 1990; MARUSIK *et al.*, 1992b).

Pistius undulatus KARSCH, 1879

Comments :

This species has been earlier recorded in the West Sayany Range (TANZYBEI, [22]) by LOGUNOV (1990) and in Buryatia by DANILOV (1993), its westernmost locality being Kurgan Area in the south of West Siberia. This species therefore has a Siberian-Far-Eastern subboreal Range.

Habitat :

Dwells in meadows and forest glades.

Synaema globosum (FABRICIUS, 1775)

Material examined :

KHAKASSIA: 5m, 3f (BI), KAS, 8 km E Birikchul' Vill. [25], 1200-1300 m elev., 16-18.07.1990, D.L.

Distribution :

A trans-Eurasian temperate range. Earlier it was known from Buryatia (Kyakhta and Burdukovo: KULCZYNSKI, 1901, and Mostovoi: DANILOV, 1993).

Habitat :

Collected by sweeping in meadows.

Thomisus onustus WALCKENAER, 1805

Material examined :

GORNIY ALTAI: 1m (BI), Cherga Vill., (80 km SW of Gorno-Altaisk) [3.2], 19.06.1989, A.V. MARCHENKO. - KHAKASSIA: 1m (BI), KAS, 8 km E Birikchul' Vill. [25], 1200-1300 m elev., 16-18.07.1990, D.L.; 1f (BI), 25 km S of Minussinsk [25.1], 7.07.1993, D.L. - TUVA: 1m (BI), TER, 20-30 km W of Erzin Vill., Ontchalaan Mt. Range [15], 1200-1400 m elev., 28.05.1990, O.V. LYAKHOV; 1f, environs of Erzin Vill., 1000 m elev., Erzin River Valley [14], 5.08.1989, D.L.; 1m (BI), TOV, NE bank of Ubsu-Nur Lake [9], 750 m elev., 12.06.1989, D.L.; 3f (BI), same locality, 18.07.1993, D.L.; 1m (BI), TTK, 50 km W of Erzin Vill., Shara-Nur Lake [15], 800-900 m elev., 3.06.1989, V.K. ZINCHENKO; 1f (BI), TTK, 1.5 km W of Samagaltai Vill., [13.1], 14.07.1993, D.L.; 1m (BI), TER, 30 km W of Erzin Vill. [15], Yamaalyg Mt. Range, 1350 m elev., 11.07.1993, D.L.; 4m, 1f (BI), TER, Tere-Khol Lake [15.1], 1150-1200 m elev., 12.07.1993, D.L. - KRASNOYARSK PROVINCE: 1f (BI), Yermakovskoye

Distr., Sayano-Shushenskiy Reserve [21], 14.08.1988, V. VAGIN.

Distribution :

A trans-Eurasian temperate range, repeatedly reported from Transbaikalia as *Th. albus* (i.e. ODENWALL, 1901 [locality 22]; IZMAILOVA, 1989). From Buryatia it was recorded by DANILOV (1993).

***Tmarus piger* (WALCKENAER, 1802)**

Material examined :

GORNIY ALTAY : 1m (BI), Turotchakskiy Distr., Logatch Vill., near Artybash Vill. [2], 10.06.1992, A.A. ALEKSEEV.

Distribution :

Trans-Eurasian temperate range, from Spain to Japan (LOGUNOV, 1992a : map). From Transbaikalia was previously reported by VERZHUTSKI *et al.* (1985) and IZMAILOVA (1989).

Habitat :

Sweeping in mixed forest (taiga).

***Tmarus rimosus* PAIK, 1973**

Material examined :

CHITA AREA : 1m (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 9.07.1991, N.A. GLADKEVITCH.

Distribution :

Widespread Siberio-Manchurian species, known from Kurgan Area and West Sayany (current locality [22] on map), through Siberia eastward to Japan and Korea (LOGUNOV, 1990, 1992a). The northern limit of the range reaches Central Yakutia (MARUSIK *et al.*, 1993).

Habitat :

The preferred habitat for *T. rimosus* was swampy meadow and woods, where it may be collected by sweeping the grass.

***Tmarus taishanensis* ZHU & WEN, 1981**

Comments :

T. taishanensis was described from China (Shandong) (ZHU & WEN, 1981) from single male. Since then it has been recorded in Buryatia (Okino-Klutchi) by DANILOV (1993) and by LOGUNOV (1992a), who includes a new description of the female.

***Xysticus albidus* GRESE, 1909**

Comments :

This species is absent from the material studied. It is known from Chita Area (Kyust'Kemda and Tcharkskaya Kotlovina) as recorded by VERZHUTSKI *et al.* (1985) and IZMAILOVA (1980, 1989). Most probably, these records indeed belong to *X. nenilini*.

***Xysticus audax* (SCHRANK, 1803)**

Material examined :

GORNIY ALTAY : 1m, 1f (BI), Teletskoye Lake, Artybash Vill., Tay Mt. [2], 500 m elev., 5.06.1967, A.P. KONONENKO; 1m (BI), same locality, 15.05.1991, A.A. ALEKSEEV. - KHAKASSIA : 1f (BI), KAT, 40 km SE of Bely-Yar Vill., 15-18 km E of Novorossiyskoye Vill. [26], 380-400 m elev., 23-24.06.1990, D.L. - TUVA : 1f (BI), TOV, NE bank of Ubsu-Nur Lake [9], 760 m elev., 18.07.1993, D.L.; 1f (BI), TER, 20 km NW of Erzin Vill., Dus-Khol' Lake [15], 800-900 m elev., 31.05.1989, D.L.; 1m (BI), TKZ, environs of Kyzyl [16], 700-900 m elev., 20.05.1989, D.L.; 5m, 8f (BI), TPK, environs of Ust'-Uyuk Vill. [18], 900-1000 m elev., 21.05.1989, D.L.; 5f (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06-2.07.1989, D.L.; 2m, 20f (BI), TTD, Azasskiy Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.; 1m (BI), TTK, 5 km N of Shuurmak Vill. [13], 900 m elev., 4.06.1989, D.L.; 1f (BI), TTK, 1.5 km W of Samagaltau Vill., [13.1], 14.07.1993, D.L.; 1f (BI), TTA, 20-25 km N of Samagaltau Vill. [12.1], 10.07.1993, D.L. - KRASNOYARSK PROVINCE : 1f (BI), 15 km E of Yermakovskoye Vill., 26.06.1990, D.L.; 1m (BI), West Sayany, 2-3 km N of Aradan Vill., Us River Valley [23], 840-850 m elev., 8-9.07.1990, D.L.; 1m, 1f (BI), Bogutchanskiy Distr., Sosnovka Vill. [24], 12.06.1974, M.T. SHTERNBERGS. - BURYATIA : 1f (BI), Ulan-Ude Town [29], 24.07.1990, M.T. SHTERNBERGS. - CHITA AREA : 1m (BI), environs of Kyra Vill. [32], 800-900 m elev., 19.06.1991, D.L.; 1m (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1400-1500 m elev., 14.06.1991, D.L.

Distribution :

Trans-Eurasian species, was earlier reported from Buryatia by IZMAILOVA (1989).

***Xysticus baltistanus* (CAPORIACCO, 1935)**

Material examined :

TUVA : 2f (BI), TER, 20-30 km W of Erzin Vill., Ontchalaan Mt. Range [15], 1200-1400 m elev., 11.06.1990, O.V. LYAKHOV; 1m, 1f (BI), 1m, 1f (RINS), same locality, Yamaalyg Mt. Range [15], 1200-1300 m elev., 9-10.06.1989, D.L.; 1m, 2f (BI), environs of Erzin Vill.

[14], 1000 m elev., Erzin River Valley, 23-26.05.1990, D.L.; 1m, 6f (BI), TKZ, environs of Kyzyl Town [16], 700-900 m elev., 5.06-22.07.1989, D.L.; 1m (BI), same locality [16], 1.05.1990, D.L.; 1f (BI), 65 km W of Kyzyl Town, Otuk-Dash Natural Limits [16], 10.05.1990, D.L.; 1f (BI), TTK, 10-12 km NW of Khol'-Oozhu Vill, Belengish Natural Limits [13], 1700-1800 m elev., 9-11.07.1989, D.L.; 1f (BI), TUK, 5-7 km E of Shagonar Town, Chaiyrkan Mt. [10], 10.05.1990, D.L.; 1f (BI), TOV, 40-50 km W of O-Shinaa Vill. [8.3], 1000-1200 m elev., 18.07.1993, D.L. - CHITA AREA : 1m, 1f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1350-1500 m elev., 2-13.06.1991, D.L. & V.G. MORDKOVITCH; 1f (BI), environs of Kyra Vill. [32], 800-900 m elev., 30.05.1991, D.L.

Distribution :

Central-Asian-Siberian temperate range. Is known from Karakoram through Tien-Shang, Mongolia, China, north to C-Siberia (MARUSIK & LOGUNOV, 1990).

Habitat :

This species prefers xerophitic habitats, such as stony, sloping steppe or dry (nanophanerophyte) steppe with Nanophyton erinaceus, where it can be found under stones.

Xysticus bifasciatus C.L. KOCH, 1837

Material examined :

TUVA : 3f (BI), TPK, West Sayany, Kurtushibinskiyy Mt. Range, 10 km NW of Shivilig Vill. [19], 1100-1200 m elev., 6-8.07.1990, D.L.; 4m, 3f (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06.-2.07.1989, D.L.; 1m, 3f (BI), TTD, Azas Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.

Distribution :

European-Siberian temperate range (except Far East). The earliest record belongs to Buryatia (Ulan-Ude, [29]) by ODENWALL (1901).

Xysticus bonneti SCHENKEL, 1963

Material examined :

GORNIY ALTAY : 3f (BI), Altay Reserve [2], 1-7.06.1990, STEPANOV. - TUVA : 1m (BI), TMT, 8-9 km NE of Mugur-Aksy Vill., Upper reaches of Kuge-Davaa River [7], 2500-2700 m elev., 10.05.1990, D.L.; 6f (BI), TMT, Barlyk River Valley, confluence with Onachy River [5], 6.06.1990, O.V. LYAKHOV; 6f (BI), TMT, Barlyk River valley, confluence with Onatchy River [5], 6.06.1990, O.V. LYAKHOV; 1m, 4f (BI), TER, Tere-Khol Lake [15.1], 1150-1200 m elev., 12.07.1993, D.L.; 1m,

7f (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m, 24-25.07.1989, D.L.; 1m, 3f (BI), same district, environs of Ust'-Uyuk Vill. [18], 900-1000 m elev., 21.05.1989, D.L.; 2f (BI), same district, West Sayany, Kurtushibinskiy Mt. Range, 10 km NW of Shivilig Vill. [19], 1100-1200 m elev., 5-6.07.1990, D.L.; 1f (BI), TTA, environs of Chagytay Lake [12], 1100-1200 m elev., 28.06.1989, D.L.; 2f (BI), TTK, 10 km NE of Khol'-Oozhu, near Alak Mt. [13], 12.07.1989, D.L.; 14f (BI), TTK, 10-12 km NW of Khol'-Oozhu Vill, Belengish Natural Limits [13], 1700-1800 m elev., 9-11.07.1989, D.L.; 3f (BI), TTK, 15 km NW of Khol-Oozhu Vill. [13], 1800-1900 m elev., 16.07.1993, D.L.; 3f (BI), TTK, 5 km NE of Khol-Oozhu Vill., valley of Aryskanny-Khem River [13], 1200-1300 m elev., 16.07.1993, D.L.; 1f (BI), TER, Tere-Khol' Lake, Eder-Elezin sands [15], 1150-1200 m elev., 8-9.08.1989, D.L.; 1f (BI), same district, 3 km E of Erzin Vill., 1000-1100 m elev., km W of Erzin Vill., Ontchalaan Mt. Range, 1000-1100 m elev., 26.05.1990, D.L. & O.V. LYAKHOV; 1m, 4f (BI), TER, Tere-Khol Lake [15.1], 1150-1200 m elev., 12.07.1993, D.L. - KHAKASSIA : 1f (BI), 40 km SE of Belyi Yar Vill., 7 km E of Novorossijskoje Vill., 380-400 m elev., 23-24.06.1990, D.L. KHAKASSIA : 5f (BI), KSH, 1 km S of Kommunar Vill. [27], 1300-1400 m elev., 23.07.1990, D.L.

Distribution :

European-Ural Central-Siberian disjunct distribution. Recently it was recorded from Russia (mountain tundra of the S-Urals) by ESJUNIN (1992) under the name *X. johannislupi*. According to PLATNICK (1993) *X. johannislupi* was synonymized with *X. bonneti* by HEIMER & NENTWIG (1991), but they used younger name without explanation. Thus, the correct name for this species is *X. bonneti*.

Comments :

Males from Ural and West Siberian populations are identical with those from Europe in the shape of palp, while the female epigynes are somewhat different. Copulatory openings in Asian population are wider and shorter than those in European specimens. This difference was first observed by ESJUNIN (personal communication). To solve this problem additional material from Europe should be studied.

Xysticus britcheri GERTSCH, 1934

Material examined :

TUVA : 1 m (BI), TOV, 24-25 km N of Khandagaity Vill. [9.1], West Tannu-Ola Mt. Range, 17-26.07.1993, D.L. - CHITA AREA : 1m (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve, Bukukunkoye Lake [31], 5-7.08.1991, V.P. PEKIN.

Distribution :

Subholarctic boreo-hypoarctic range. From South Siberia this species was described from environs of Krasnoyarsk (= Yeniseisk) as *X. lectus* (UTOTCHKIN, 1968) and then repeatedly recorded under the same name by VERZHUTSKIY *et al.* (1985) and by IZMAILOVA (1980, 1989) from Irkutsk and Chita areas. It was also found at a few points in Altai. Widely distributed thorough the whole Holarctic, except for northwest Europe (Scandinavia and Arkhangel'sk Area). In North America it is distributed north to the Mackenzie River mouth (DONDALE & REDNER, 1978). In Siberia : from Polar Urals (western macroslopes) (MARUSIK, 1989a), through South Yamal, South taimyr, whole Yakutia (from the north down to Kolyma), south to the middle Yenisey (62°N), Evenkia, Transbaikalia, Mongolia and Cisamuria, northeast to the Chaun Bay and the upper reaches of Bol'shaya Osinovaya River.

Xysticus dzhungaricus* TYSHCHEKO, 1965Material examined :*

Tuva : 1f (BI), TTK, 15 km NW of Khol-Oozhu Vill. [13], 1800-1900 m elev., 16.07.1993, D.L.; 1f (BI), TTA, 6-10 km N of Shuurmak Vill. (20-25 km N of Samagaltai Vill.) [12.1], 10.07.1993, D.L.

Distribution :

East Central-Asian - South-Siberian range (MARUSIK & LOGUNOV, 1990). The species has hitherto been recorded from Tuva [current localities 12,18,19] and Khabarovsk Province by LOGUNOV (1992b : *X. kiritschenkoi*).

Xysticus emertoni* KEYSERLING, 1880Material examined :*

TUVA : 1m (BI), TER, environs of Erzin Vill., Erzin River Valley [14], 1000 m elev., 23-26.05.1990, D.L.; 1m, 3f (BI), TPK, West Sayany, Kurtushibinskiy Mt. Range, 10 km NW of Shivilig Vill. [19], 1100-1200 m elev., 6-8.07.1990, D.L.; 6f (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06.-2.07.1989, D.L.; 1m (BI), TTK, 20 km NW of Khol-Oozhu Vill. [13], 2100 m elev., 16.07.1993, D.L.; 1m (BI), TTD, Azas Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.; 1f (BI), TTK, 10-12 km NW of Khol'-Oozhu Vill., Belengish Natural Limits [13], 1700-1800 m elev., 9-11.07.1989, D.L.; 1m (BI), TUK, 8 km S of Torgalyg Vill., Torgalyg River Valley [11], 900-950 m elev., 8.05.1990, D.L. - BURYATIA : 2f (BI), Selenginskiy Distr., Tayozhniy Vill. [30], 20.08.1984, B.P. ZAKHAROV. - CHITA AREA : 6m, 1f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1200-1400 m elev., 10-14.06.1991, D.L.

Distribution :

Siberio-American temperate (polyzonal) range. In Siberia this species was found from Altai (southwesternmost point), Tuva and Mongolia on the southwest, through Cis- and Transbaikalia, Cisamuria, Yakutia, north to the middle Lena (67°N), northeast to the upper reaches of Bol'shaya Osinovaya River, and east to Kamchatka. Within South Siberia it was previously recorded in Buryatia (Barguzinskiy Reserve) (SHTERNBERGS, 1981), Irkutsk and Chita areas (VERZHUTSKIY *et al.*, 1985 and IZMAILOVA, 1989, respectively, as *X. excellens*).

Xysticus ephippiatus* SIMON, 1880Material examined :*

TUVA : 3m, 1f (BI), TKZ, environs of Kyzyl [16], 700-900 m elev., 17.05-7.06.1989, D.L.; 1m, 1f (BI), same district, 5-7 km W of Kyzyl, Yenisey River Valley [16], 700 m elev., 25.06-23.07.1989, D.L.; 2m (BI), same locality, 15-22.05.1990, D.L.; 2m, 2f (BI), TTD, Azas Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.; 3m (BI), TTK, 5 km NE of Khol-Oozhu Vill. valley of Aryskanny-Khem River [13], 1200-1300 m elev., 16.07.1993, D.L.; 1f (BI), TTK, 1.5 km W of Samagaltai Vill. [13.1], 14.07.1993, D.L.; 2f (BI), TOV, NE bank of Ubsu-Nur Lake [9], 760 m elev., 18.07.1993, D.L. - CHITA AREA : 2f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1300-1400 m elev., 14-15.06.1991, D.L.; 2m (BI), environs of Kyra Vill. [32], 800-850 m elev., 19.06.1991, D.L.

Distribution :

Siberian temperate species. It was described as *X. transsibiricus* from S-Siberia (UTOTCHKIN, 1968), the type material including specimens collected from Altay (Teletskoye Lake [2]) and environs of Krasnoyarsk as well. Later IZMAILOVA (1989) has recorded this species also as *X. transsibiricus* from Krasnoyarsk Province (current locality 24), Chita and Irkuts areas. Synonymy of *X. transsibiricus* with *X. ephippiatus* has been first recognized by ONO (1988).

***Xysticus ferruginoides* SCHENKEL, 1963**

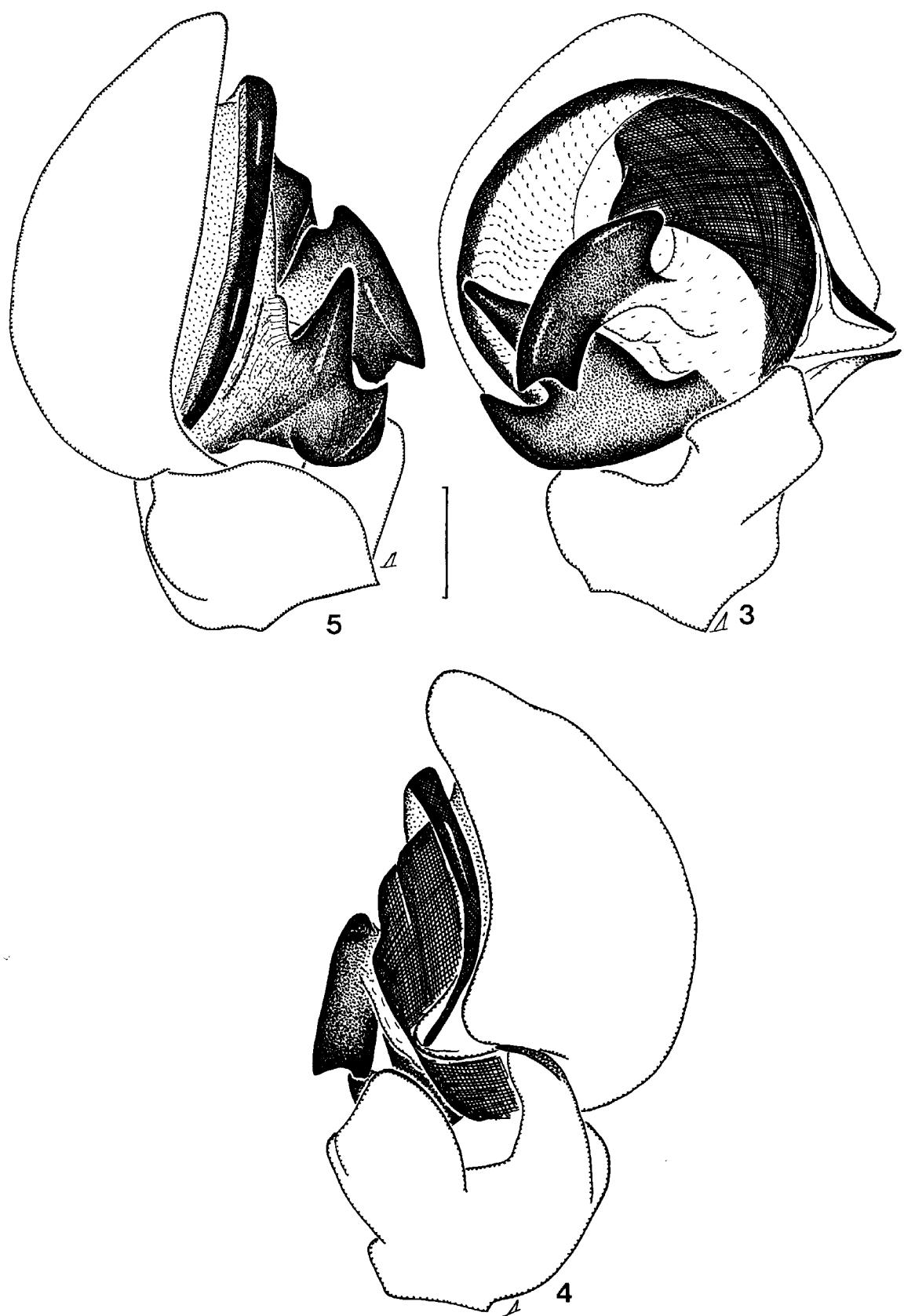
(figs. 3-5)

Material examined :

BURYATIA : 1m (BI-1493), Selenginskiy Distr., Tayozhniy Vill., Temnik River [30], 15-26.07.1984, P.Y. USTYUZHANIN.

Diagnosis :

This species belongs to the "luctans" species group (sensu ONO, 1988). It closely resembles *X. insulicola*



Figs. 3-5. – *Xysticus ferruginoides*, male left palp, specimen from Buryatia. 3. ventral view; 4. prolateral view; 5. retrolateral view. Scale - 0.1 mm.

from Japan and *X. bifurcus* from Korea in the palpal structure (see ONO, 1988 and PAIK, 1973), but can be easily distinguished from them by the presence of a ventral process on the median tegular apophysis and by the shape of the apical tegular apophysis which is more deeply bifurcated (fig. 3).

Distribution :

Mongolia (between Ulan-Bator (= Urga) and Tsitsikhar) and Buryatia. This is the first record of the species from Russia.

Description :

MALE. Measurements. Carapace 2.90 long, 2.35 wide. Abdomen 2.80 long, 2.30 wide. Clypeal height 0.24. MOA-WA 0.49, MOA-WP 0.51, MOA-L 0.50. AME 0.09, ALE 0.17, PME 0.10, PLE 0.12, AME-AME 0.21, AME-ALE 0.17, PME-PME 0.27, PME-PLE 0.27. Length of the leg segments. Leg I 2.30 + 1.05 + 1.70 + 1.78 + 0.93. Leg II 2.30 + 1.00 + 1.73 + 1.63 + 0.90. Leg III 1.60 + 0.75 + 1.03 + 1.05 + 0.70. Leg IV 1.60 + 0.65 + 1.23 + 1.00 + 0.70. Spination of leg I : femur d. 0-1-0-1-1-1, pr. 0-1-1-1-1-0; tibia pr. and rt. 1-1-1, v. 2-2-2-2ap.; metatarsus pr. and rt. 1-1-1ap., v. 2-2-2-2ap. Coloration. Carapace yellowish-brown with V-shaped yellow marking. Sternum, maxillae, labium and chelicerae brown-yellow. Dorsum brown with a wide cream-coloured band and two transverse thin lines on the posterior part of abdomen. It is also bordered by a white line. Venter brownish. Book-lung covers yellow. Spinnerets brown. Legs I and II: femora and patellae brown; other segments yellow; all segments with longitudinal ventral and dorsal white lines. Legs III and IV fully brownish. Palpal structure as shown in figs. 3-5.

FEMALE. Unknown.

Xysticus hedini SCHENKEL, 1936

Material examined :

CHITA AREA : 2f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 16.06.1991, D.L.; 1f (BI), 3 km W of Kyra Vill. [32], moist meadow, 800-850 m elev., 30.05.1991, D.L.

Distribution :

First record for Russia. Dauro-Far-Eastern (Manchurian) subboreal range (see LOGUNOV, in press). The species was described by SCHENKEL (1936) from China (Inner Mongolia). It was also described and known as *X. bifidus* from Korea (PAIK, 1973). YAGINUMA (1986) and ONO (1985, 1988) have also recorded this species from Japan under the name *X. bifidus*. MARUSIK (1989b) synonymized both these species.

Xysticus inaequalis KULCZYNSKI, 1901

Material examined :

TUVA : 1f (BI), TOV, North bank of Ubsu-Nur Lake [9], 750 m elev., 12.06.1989, D.L.

Distribution :

First record for Russia. Earlier this species was known only from Mongolia and North China (SCHENKEL, 1963). Recently it was found in East Kazakhstan (MARUSIK & LOGUNOV, in press).

Note :

Generic position of this species is dubious. It was transferred by SCHENKEL (1963) to *Oxyptila*. However, based on the general morphology and the structure of the genitalia, *X. inaequalis* resembles *Oxyptila lugubris* (KRONEBERG, 1875), *X. tuberosus* THORELL, 1875, and *X. pseudoblitteus* (SIMON, 1888). These four species comprise a group at the generic level which differs both from *Xysticus* and *Oxyptila*, as well as from *Psammitis*.

Xysticus lineatus (WESTRING, 1851)

Material examined :

TUVA : 1m (BI), TTD, Azasskiy Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.

Distribution :

Europo-Baikalian temperate species, the easternmost locality is Irkutsk area (IZMAILOVA, 1989). It was also recorded by IZMAILOVA (1989) from Krasnoyarsk Province (current locality 24).

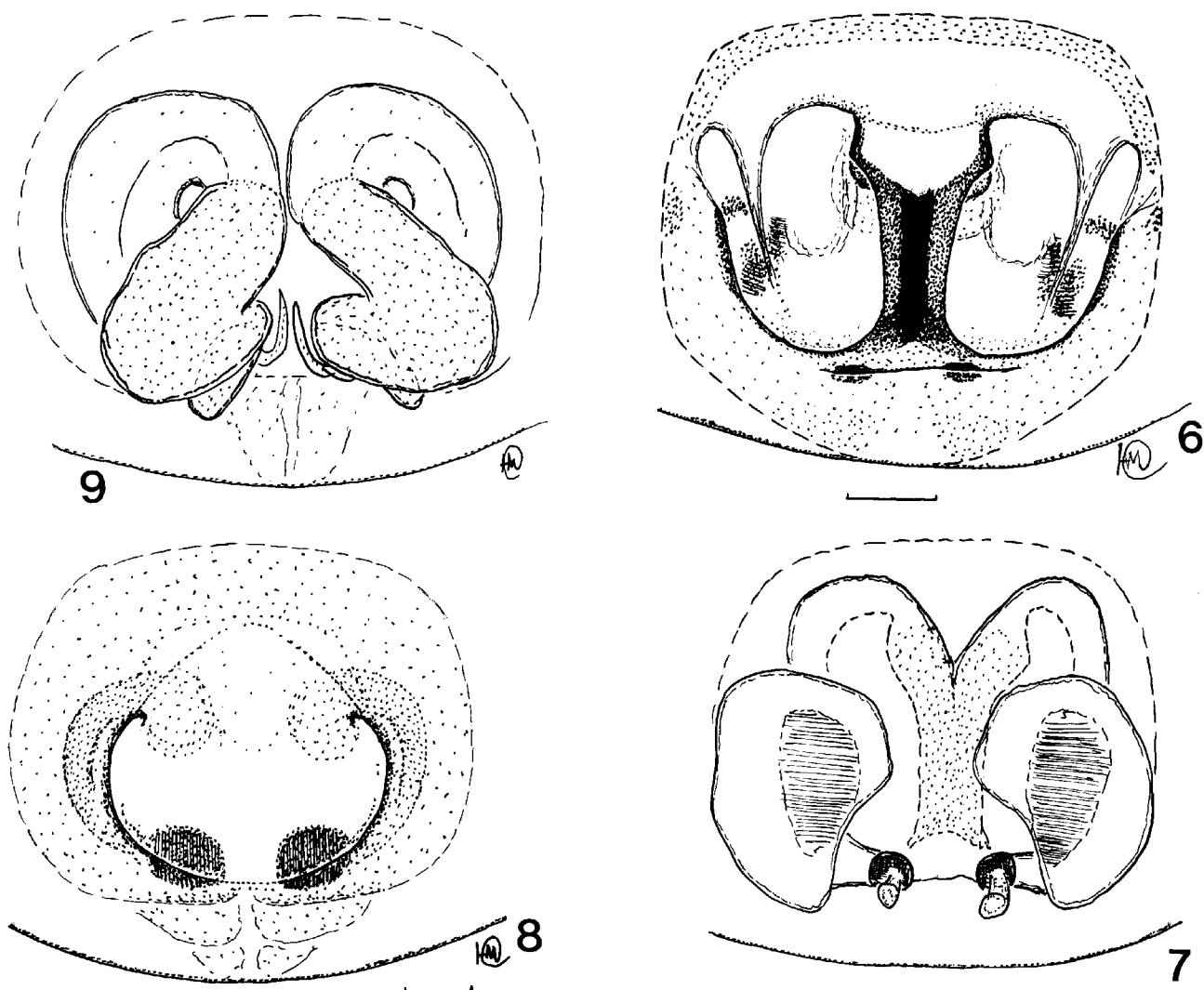
Xysticus luctuosus (BLACKWALL, 1836)

Material examined :

GORNII ALTAI : 1m (BI), Cherga Vill., 80 km SW of Gorno-Altaisk [3.2], 19.06.1989, A.V. MARCHENKO. - TUVA : 1m (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m elev., 24-25.07.1989, D.L.; 6m, 2f (BI), TTD, Azasskiy Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L. - KRASNOYARSK PROVINCE : 1f (BI), Yermakovskoye Distr., 14 km SW of Tanzybey Vill., Filin Spring [22], 400-500 m elev., 13.07.1990, D.L.; 1f (BI), same district, 15 km E of Yermakovskoye Vill., 26.06.1990, D.L.

Distribution :

Holarctic temperate species, repeatedly reported from Transbaikalia (SHTERNBERGS, 1981; VERZHUTSKI *et al.*, 1985; IZMAILOVA, 1980, 1989).



Figs. 6-9. — Epigynes of *Xysticus mugur* (6, 7) and *X. nenilini* (8, 9). 6, 8. ventral view; 7, 9. dorsal view; both specimens from SW Tuva. Scale - 0.1 mm.

***Xysticus mugur* MARUSIK,
in MARUSIK & CHEVRIZOV, 1990
(figs. 6, 7)**

Material examined :

GORNIY ALTAY : 1m, 9f (BI), Altaiiskiy Reserve [2], 1-7.06.1990, STEPANOV. TUVA : 3m, 7f (BI), TMT, 5-8 km SE of Mugur-Aksy Vill., Kargy River Valley [5], 1700-1900 m elev., 11-14.06.1989, D.L.; 3m, 13f (BI), 1m, 1f (RINS), same locality, 11.05-8.06.1990, D.L., O.V.Lyakhov; 1f, same district, 45-50 km W of Mugur-Aksy Vill., upper reaches of Kargy River, Cholchugdug-Khovu Natural Limits [7], 2200-2300 m elev., 17.05.1990, D.L.; 10m, 9f (BI), same district, 3-5 km N of Kyzyl-Khaya Vill., bank of Mogen-Buren River [6], 2000-2100 m elev., 15.06.1989, D.L.; 9f (BI), same district, 40-45 km SW of Mugur-Aksy Vill., Khar-Kharagay River [6], 2200-2300 m elev., 14.06.1989, D.L.; 30f (BI), same district, 40-50 km W of Mugur-

Aksy Vill., Upper reaches of Kargy River, Chalyyasha Natural Limits [7], 2200-2300 m elev., 18.05-10.06.1990, D.L., O.V. LYAKHOV; 1m (BI), TMT, 30-35 km SW of Mugur-Aksy Vill. [7.1], upper reaches of Mugur River, Mongun-Taiga Mt., 3100-3300 m elev., 23.07.1993, D.L.; 4m, 7f (BI), TOV, 30 km W of Sagly Vill., Pass between Sagly and Onachy Rivers [8], 2300 m elev., 13.06.1989, D.L.

Diagnosis :

For diagnosis of male, see MARUSIK & CHEVRIZOV (1990). Females, the description of which is given for the first time, can be distinguished from all other known *Xysticus* by the shape of the epigyne (figs. 6, 7). The epigynal septum resembles that of *X. audax* but is longer and thinner. Unlike the latter species, the lateral margins of the fovea are not distinct and the whole epigyne is pale white.

Distribution :

The species is known only from SE Altai and SW Tuva.

Description:

FEMALE. Measurements. Carapace 1.98 long, 1.80 wide. Abdomen 3.05 long, 2.50 wide. Clypeal height 0.19. MOA-WA 0.44, MOA-WP 0.46, MOA-L 0.45. AME 0.08, ALE 0.11, PME 0.06, PLE 0.10, AME-AME 0.29, AME-ALE 0.18, PME-PME 0.34, PME-PLE 0.38. Length of the leg segments. Leg I 1.68 + 0.80 + 1.15 + 1.00 + 0.70. Leg II 1.70 + 0.85 + 1.13 + 1.03 + 0.68. Leg III 1.23 + 0.60 + 0.80 + 0.75 + 0.45. Leg IV 1.35 + 0.64 + 0.93 + 0.85 + 0.68. Spination of leg I : femur pr. 1-1-1; tibia v. 1-2-1-2 ap; metatarsus pr. and rt. 0-1-1ap., v. 2-2-2ap. Coloration. Carapace : sides cream-coloured to brown; pars thoracica cream-white; pars cephalica brownish-yellow with dark-brown triangular spot on its distal end. Sternum, maxillae and anterior sides of chelicerae white with numerous brown spots. Labium and posterior sides of chelicerae brown. Abdomen cream-coloured, dorsum with a double row of transversal brown patches which are sometimes absent anteriorly. Book-lung covers and spinnerets brown. Legs cream-coloured. Epigyne and spermathecae as in figs. 6,7.

MALE. For description of male see MARUSIK & CHEVRIZOV, 1990.

Xysticus nataliae UTOTCHKIN, 1968*Comments :*

This species is only known from a single female (holotype) described from Chita area (Yablonoviy Mt. Range, Okhonok Lake) by UTOTCHKIN (1968).

Xysticus nenilini MARUSIK, 1989
(figs. 8, 9)*Material examined :*

TUVA : 2m, 1f (BI), TMT, 5-8 km SE of Mugur-Aksy Vill., Kargy River Valley [5], 1700-1900 m elev., 16.05-8.06.1990, D.L., O.V. LYAKHOV; 1m (BI), same district, 45-50 km W of Mugur-Aksy, upper reaches of Kargy River, Cholchugdug-Khovu Natural Limits [7], 2200-2300 m elev., 17.05.1990, D.L.; 2m (BI), same district, 3-5 km N of Kyzyl-Khaya Vill., bank of Mogen-Buren River [6], 2000-2100 m elev., 15.06.1989, D.L.; 1f (BI), same district, Barlyk River Valley, confluence with Onachy River [6], 6.06.1990, O.V. LYAKHOV; 1m, 2f (BI), same district, 8-9 km NE of Mugur-Aksy Vill., Upper reaches of Kuge-Davaa river [5], 2500-2700 m elev., 10.05.1990, D.L.; 1m, 1f (RINS), same district, 40-50 km W of Mugur-Aksy Vill., Upper reaches of Kargy River, Chalyyasha Natural Limits [7], 2200-2300 m elev., 18.05.1990, D.L.; 2m (BI), TOV, 30 km W of

Sagly Vill., Pass between Sagly and Onachy Rivers [8], 2300 m elev., 13.06.1989, D.L.; 2f (BI), same district, 20-25 km NW of Solchur Vill. [8], 1500-1600 m elev., 13.06.1989, D.L.; 1f (BI), TOV, 3 km NE of Sagly Vill. [8.2], 24.07.1993, D.L.; 1f (BI), TTK, 1.5 km W of Samagaltau Vill., [13.1], 14.07.1993, D.L.

Diagnosis :

For diagnosis of male see MARUSIK (1989). Females are very similar in general appearance and shape to the epigynes to *X. albidus*, *X. deichmanni* and *X. labradorensis*. Females of *X. nenilini* can be distinguished from the related Siberian species, *X. albidus*, by the relatively small and elongate receptacula and by the presence of the connecting (intromittent) ducts.

Distribution :

This species is known from Central Yakutia on the north-east (MARUSIK, 1989a), Mongolia (unpublished data, Y.M.) and S. TUVA (present data).

Description :

FEMALE. Measurements. Carapace 2.38 long, 2.20 wide. Abdomen 3.65 long, 3.88 wide. Clypeal height 0.25. MOA-WA 0.53, MOA-WP 0.58, MOA-L 0.53. AME 0.08, ALE 0.15, PME 0.08, PLE 0.11, AME-AME 0.40, AME-ALE 0.23, PME-PME 0.58, PME-PLE 0.44. Length of the leg segments. Leg I 1.88 + 1.03 + 1.35 + 1.28 + 0.75. Leg II 1.95 + 1.03 + 1.28 + 1.23 + 0.78. Leg III 1.38 + 0.70 + 0.85 + 0.88 + 0.63. Leg IV 1.63 + 0.75 + 0.98 + 1.13 + 0.63. Spination of leg I : femur pr. 1-1-1; tibia v. 0-2-2-2 ap.; metatarsus pr. 1-1-1 ap., v. 2-2-2 ap. Coloration. Carapace brown on sides with a medial wide light band, which is brownish on the pars cephalica and white on the pars thoracica. Sternum cream-coloured with numerous brown spots. Maxillae and labium brownish. Abdomen yellow-cream-coloured, dorsum with 4 pairs of grey patches forming a wide longitudinal band. Spinnerets and book-lung covers grey-yellow. Epigyne and spermatheca as shown in figs. 8, 9.

Xysticus obscurus COLLETT, 1877*Material examined :*

GORNIY ALTAY : 1f (BI), Turochaksky Distr., Sodra Lake [3], 5.09.1977, B.P. ZAKHAROV; 2m (BI), Altaiskiy Reserve, Artybash Vill. [2], 13.05.1991, A.A. ALEKSEEV. - KEMEROVO AREA : 1f (BI), Kuze-deevsk Distr., Gornaya Shoriya, Sherebesh Vill., [4], 25.05.1948, Coll. ?. - KHAKASSIA : 1f (BI), KSH, 1 km of Kommunar Vill. [27], 1300-1400 m elev., 23.07.1990, D.L. - KRASNOYARSK PROVINCE : 1m, 1f (BI), Yermakovskoye Distr., West Sayany, Oiski Mt. Range, 8-10 km S of Oiskoye Lake, Oisky Pass [20], 1800 m elev., 27.06-10.07.1990, D.L.

Distribution :

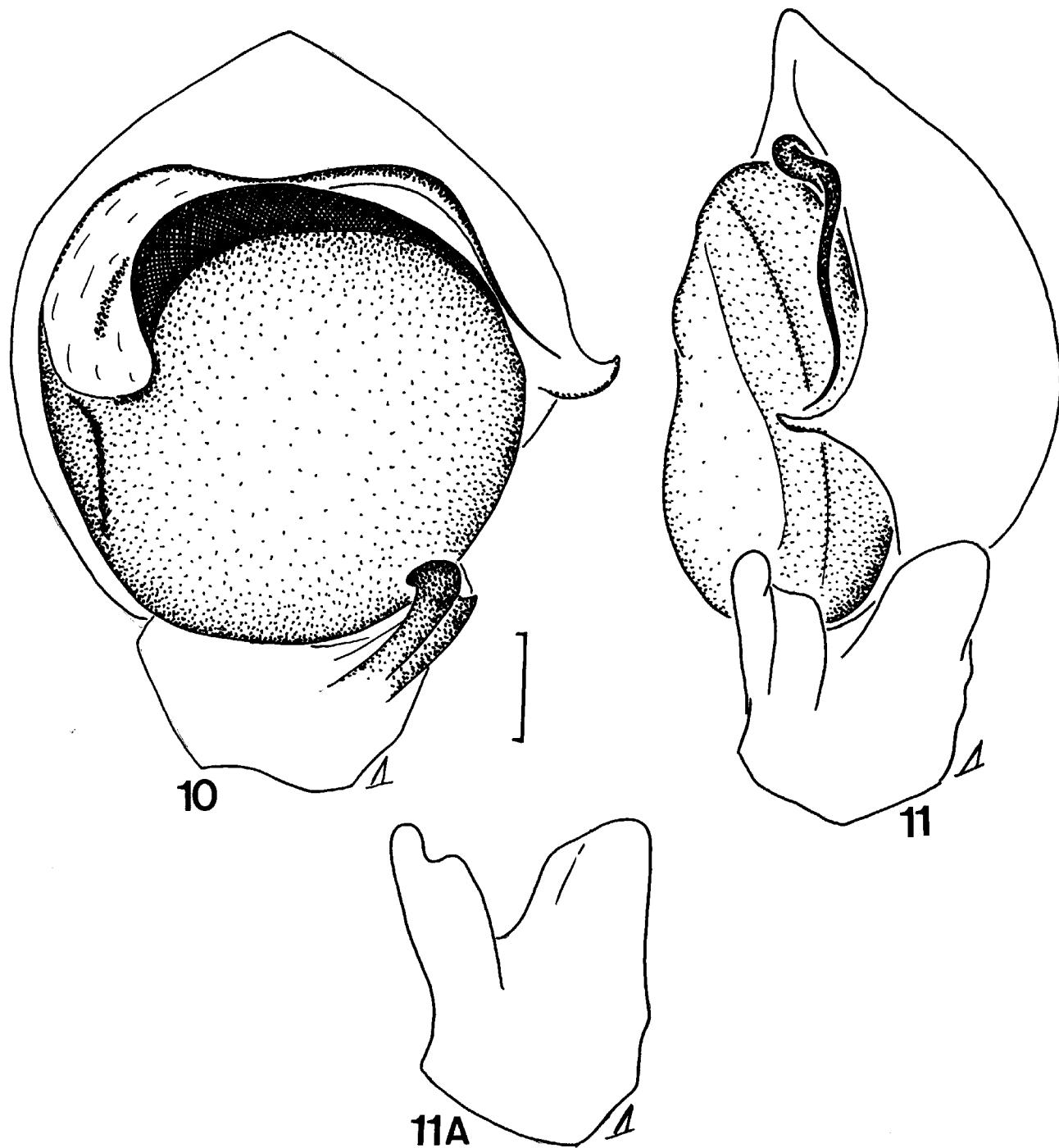
Holarctic temperate range (except for NE Siberia). Previously recorded from the environs of Irkutsk (IZMAILOVA, 1989).

Xysticus robustus (Hahn, 1831)*Material examined :*

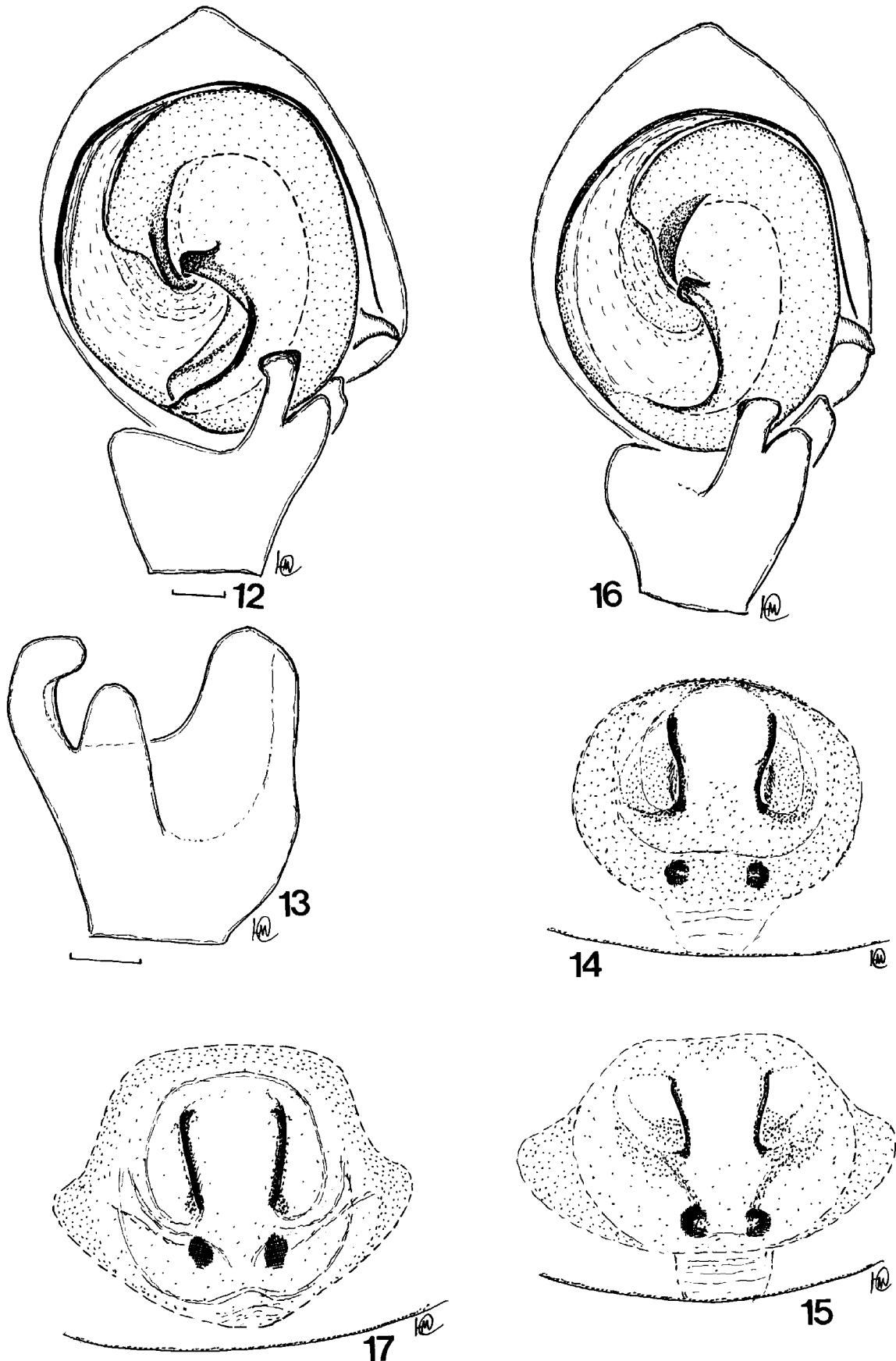
KHAKASSIA : 1f (BI), KAS, 3-5 km W of Birikchul' Vill. [25], 18.07.1990, D.L.

Distribution :

European-Siberian subboreal range. First record for Siberia.



Figs. 10-11. – *Xysticus seserlig* sp. n., male left palp, holotype from Tuva. 10. ventral view; 11. retrolateral view; 11a- palpal tibia, retrolateral view. Scale - 0.2 mm.



Figs. 12-17. – Genitalia of *Xysticus sjostedti* (12-15) and *X. hermani* sp. n. (16-17). 12, 16. male left palp, ventral view; 13. tibial apophysis of the male palp, retrolateral view; 14, 15, 17. epigyne, ventral view. 14 & 15. specimens from Tuva and Chita Area, respectively; 16,17- specimen from Yakutia. Scale - 0.1 mm.

***Xysticus rugosus* BUCKLE & REDNER, 1964**
 (figs. 20-22)

Material examined :

TUVA : 1m, 1f (BBI), 30-35 km SW of Mugur-Aksy Vill. [7.1], upper reaches of Mugur River, Mongun Taiga Mt., 3100-3300 m elev., 23.07.1993, D.L. - KRASNOYARSK PROVINCE : 4m, 2f (BI), Yermakovskoye Distr., West Sayany, Oiski Mt. Range, 8-10 km S of Oiskoye Lake, Oisky Pass [20], 1800 m elev., 27.06-10.07.1990, D.L.; 1m, 12f (BI), same locality [20], 8.07.1993, D.L.

Diagnosis :

This species is closely related to *X. sibiricus* from which it can be distinguished by a thin and pointed embolic tip (fig. 20) and the inconspicuous position of the connecting duct openings (figs. 21-22).

Distribution :

Siberio-West American temperate range. Within Siberia it is known from tuva, the southern part of Krasnoyarsk Prov. (present data), North-East Yakutia, the Upper Kolyma (MARUSIK *et al.*, 1992a, 1993). In America it was known for a long time from the Rocky Mountains (DONDALE & REDNER, 1978) on the border between Canada and the United States. Recently it was also found in the Sheep mountains around Kluane Lake (Yukon Territory) (personal data, Y.M.).

***Xysticus seserlig* LOGUNOV et MARUSIK sp. n.**
 (figs. 10-11)

Material examined :

TUVA : 1m (holotype, BI-1495), TPK, 10 km SE of Seserlig Vill., 2.05.1990, D.L.; 1m (paratype, BI-1494), same district, Boyarovka Vill., right bank of Enisei River, 23.07.1949, Perevozchikova.

Diagnosis :

The new species is related to *X. ninnii* THORELL, 1872, *X. nepathymalaicus* ONO, 1978 and *X. minor* CHARITONOV, 1946 (see UTOTCHKIN, 1968; MARUSIK & LOGUNOV, 1990), but it can be separated by the thinner and longer embolus and submedian position of the tegular ridge (fig. 10).

Distribution :

North Tuva.

Habitat :

Both specimens were collected in the dry steppe in association with Artemisia spp. and Stipa spp.

Description :

MALE. Measurements. Carapace 1.63 long, 1.53 wide.

Abdomen 1.85 long, 1.63 wide. Clypeal height 0.14. MOA-WA 0.34, MOA-WP 0.39, MOA-L 0.36. AME 0.06, ALE 0.11, PME 0.05, PLE 0.09, AME-AME 0.24, AME-ALE 0.14, PME-PME 0.27, PME-PLE 0.29. Length of the leg segments. Leg I 1.53 + 0.70 + 1.13 + 1.15 + 0.70. Leg II 1.48 + 0.64 + 1.08 + 1.07 + 0.68. Leg III 1.05 + 0.45 + 0.70 + 0.75 + 0.48. Leg IV 1.13 + 0.48 + 0.75 + 0.85 + 0.55. Spination of leg I: femur pr. 0-1-1-1-0, d. 0-1-1-1; tibia pr. and rt. 1-1-1, v. 2-2-2; metatarsus pr. and rt. 0-1-1 ap., v. 2-2-2 ap. Coloration. Carapace brownish with median sandy-coloured band and white eye field. Sternum, maxillae and labium cream-coloured with brownish dots. Chelicerae sandy-coloured anteriorly and brown on sides. Abdomen: venter white-cream-coloured, dorsum yellowish. Booklung covers brown. Legs yellowish with numerous brown dots and stripes. Palp structure as shown in figs. 10-11.

FEMALE. Unknown.

Etymology :

The specific name is a noun in apposition taken from the type locality.

***Xysticus sibiricus* KULCZYNKI, 1908**
 (figs. 22-24)

Material examined :

TUVA : 1m (BI), TTD, environs of Toora-Khem Vill., Yenisey River [17], 8.09.1987, Y.P. KRASNOBAEV. - KRASNOYARSK PROVINCE : 1m (BI), Yermakovskoye Distr., 2-3 km N of Aradan Vill., Us River Valley [23], 840-850 m elev., 8-9.07.1990, D.L.; 1m (BI), same district, Sayano-Shushenskiy Reserve [21], 3.07.1987, V. VAGIN. - CHITA AREA : 12m, 15f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1300-1400 m elev., 8-9.06.1991, D.L.

Diagnosis :

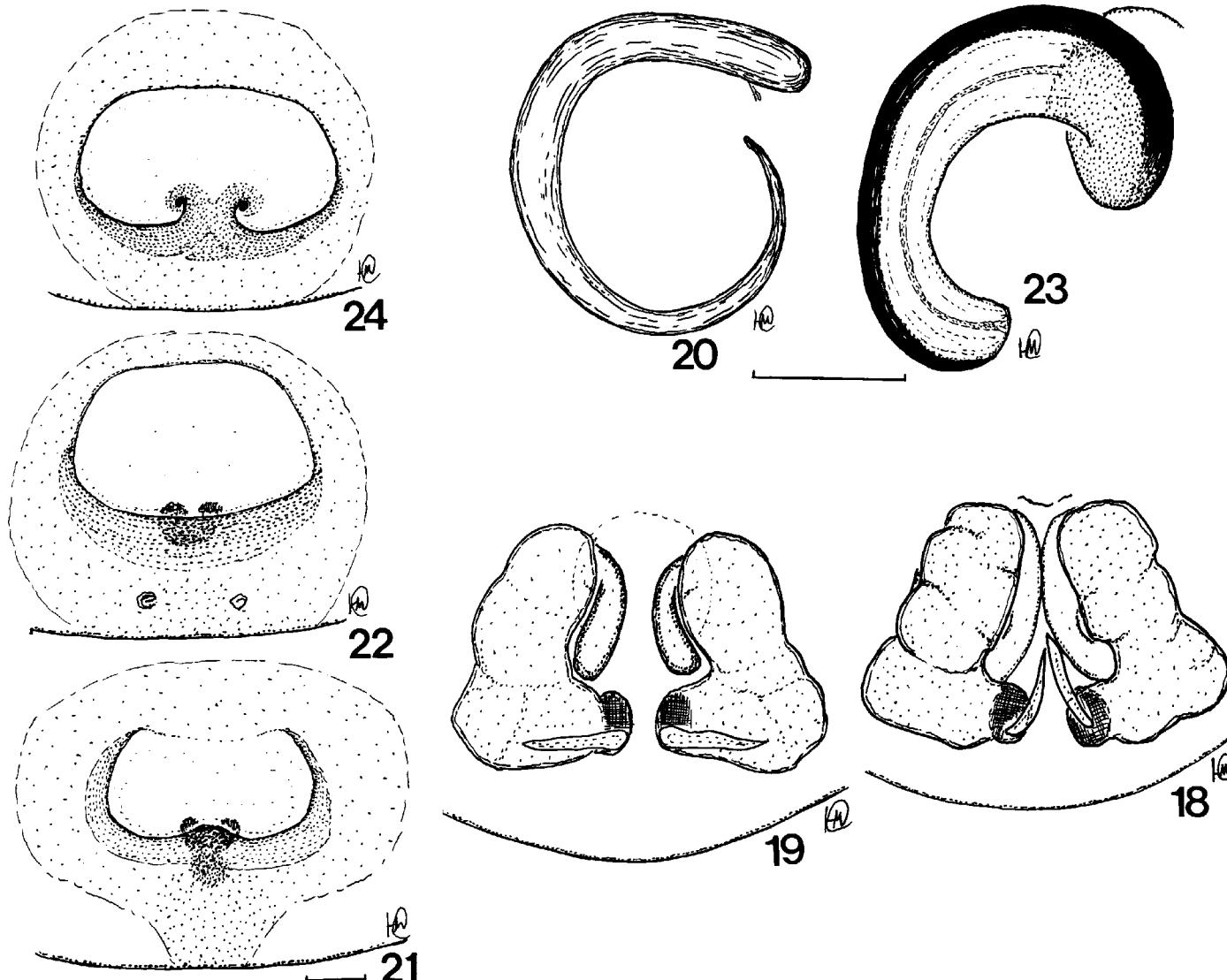
This species resembles *X. rugosus* from which can be distinguished by a wide and rounded embolic tip (fig. 23) and conspicuous position of the connecting duct openings (fig. 24).

Distribution :

Siberian boreal range, from the Upper Kolyma in North-East Asia through Yakutia, southwards to Mongolia (MARUSIK, 1988, 1989a) and westward to Tuva. Previously recorded from the Chita area (Kust'-Kemdy and Sokhondo Reserve) (VERZHUTSKI *et al.*, 1985; IZMAILOVA, 1978, 1980, 1989; DANILOV & KURTOVA, 1991).

Habitat :

The species occurs in crowns, and under the bark, of coniferous trees (pines, firs).



Figs. 18-24. — Genitalia of *Xysticus sjostedti* (18), *X. bermani* sp. n. (19), *X. rugosus* (20-22) and *X. sibiricus* (23, 24). 18, 19. epigyne, dorsal view; 20, 23. embolus, retrolateral view; 21, 22, 24. epigyne, ventral view. Scale - 0.1 mm.

***Xysticus sjostedti* SCHENKEL, 1936**
(figs. 18-24)

Material examined :

GORNIY ALTAY : 1m (BI), Kosh-Agach Vill. [1], 26.07.1964, A.P. KONONENKO; 1m (BI), Altay Reserve [2], 1-7.06.1990, STEPANOV; 1f (BI), Cherga Vill. (80 km SW of Gorno-Altaisk) [3.2], 19.06.1989, A.V. MARCHENKO. - KHAKASSIA : 2f (BI), KAT, 40 km SE of Bely Yar Vill., 17 km E of Novorossiyskoye [26], 350-400 m elev., 23-24.06.1990, D.L. - TUVA : 3m (BI), TER, environs of Erzin Vill., Erzin River Valley [14], 1000 m elev., 23.05-2.06.1990, D.L., O.V. LYAKHOV; 4m (BI), 1m (RINS), same district, 20-30 km W of Erzin Vill., Ontchalaan Mt. Range [15], 1200-1400 m elev., 27.05-12.08.1989, D.L.; 6m (BI), TKZ, environs of Kyzyl [16], 700-900 m elev., 5-20.06.1989, D.L. 3m (BI), TMT, 5-8 km SE of Mugur-Aksy Vill., Kargy River Valley [5], 1700-1900 m elev., 20.05.1990, D.L.;

2f (BI), same district, 45-50 km W of Mugur-Aksy, upper reaches of Kargy River, Cholchugdug-Khovu Natural Limits [7], 2200-2300 m elev., 17.05.1990, D.L.; 2m (BI), same district, 3-5 km N of Kyzyl-Khaya Vill., bank of Mogen-Buren River [6], 2000-2100 m elev., 15.06.1989, D.L.; 1m (BI), 8-9 km NE of Mugur-Aksy Vill., Upper reaches of Kuge-Davaa River [5], 2500-2700 m elev., 10.05.1990, D.L.; 1f (BI), TOV, 20-25 km NW of Solchur Vill. [8], 1500-1600 m elev., 13.06.1989, D.L.; 1m (BI), 13-15 km N of Khandagaity Vill. [9.2], 25-26.07.1993, D.L.; 1f (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m elev., 24-25.07.1989, D.L.; 1f (BI), same locality, 29.06.1990, D.L.; 1f (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06.-2.07.1989, D.L.; 1m, 3f (BI), 1f (RINS), TTK, 10-12 km NW of Khol'-Oozhu Vill., Belengish Natural Limits [13], 1700-1800 m elev., 9-11.07.1989, D.L.; 1f (BI), 50 km W of Erzin Vill., Shara-Nur Lake, 800-900 m elev., 3.06.1989, V.K.

ZINCHENKO. - BURYATIA : 1m (BI), Kyakhtinskiy Distr., Duren Vill. [28], 23.06.1986, B.P. ZAKHAROV.

Diagnosis :

X. sjostedti can be easily distinguished from all other Siberian or Asian species by the shape of the copulatory organs except for the closely related *X. bermani* MARUSIK sp. n. (see below). Unlike males of other species, *X. sjostedti* has a distinct and long tegular ridge, long embolus and no separated tegular apophysis (fig. 12). While a tegular ridge is present in *X. dzhungaricus* and *X. lepnevae*, they also have a pointed tegular apophysis that is separated from the tegular ridge. Other males of the *X. labradorensi* species group have a long tegular ridge which is toothed, unlike that in *X. sjostedti* and members of the former group which have a short spiral embolus. The epigyne of *X. sjostedti* is very similar to that of *X. baltistanus*, but can be distinguished from it by the wider and relatively shorter septum.

Distribution :

China (Inner Mongolia) and South Siberia.

Habitat :

This species prefers different stepp type biotopes, such as sloping, nanophanerophyte or mountain steppe, where it occurs under stones.

Description :

MALE. Measurements. Carapace 2.45 long, 2.50 wide. Abdomen 2.80 long, 2.40 wide. Clypeal height 0.18. MOA-WA 0.56, MOA-WP 0.58, MOA-L 0.46. AME 0.08, ALE 0.13, PME 0.08, PLE 0.09, AME-AME 0.35, AME-ALE 0.20, PME-PME 0.43, PME-PLE 0.43. Length of the leg segments. Leg I 2.70 + 1.23 + 1.98 + 2.13 + 1.10. Leg II 2.55 + 1.30 + 1.78 + 1.90 + 1.05. Leg III 1.83 + 0.78 + 1.08 + 1.05 + 0.75. Leg IV 1.88 + 0.83 + 1.10 + 1.15 + 0.78. Spination of leg I : femur pr. 1-0, d. 0-1-1-0; tibia v. 2-2-2 ap.; metatarsus pr. 1-1-1-1, v. 2-2-2-2 ap. Coloration. Carapace dark-brown with medial wide yellow-brownish band. Sternum, maxillae, labium and chelicerae yellow with numerous brown spots. Abdomen cream-brown, dorsum with 4 pairs of triangular, transverse brown spots. Book-lung covers yellow. Spinnerets brownish. Legs I-III dark-brown, leg IV brown ventrally and white dorsally. Palpal structure as shown in fig. 12.

FEMALE. Measurements. Carapace 3.65 long, 3.43 wide. Abdomen 4.13 long, 3.75 wide. Clypeal height 0.19. MOA-WA 0.78, MOA-WP 0.90, MOA-L 0.68. AME 0.10, ALE 0.18, PME 0.10, PLE 0.15, AME-AME 0.53, AME-ALE 0.33, PME-PME 0.70, PME-PLE 0.63. Length of the leg segments. Leg I 2.78 + 1.80 + 2.10 + 1.88 + 0.90. Leg II 2.68 + 1.60 + 1.80 + 1.83 + 0.93. Leg III 2.10 + 1.10 + 1.18 + 1.20 + 0.73. Leg IV 2.15 + 1.00 + 1.33 + 1.33 + 0.78. Spination of the leg I :

femur pr. 1-1-1; tibia v. 2-2-2-2 ap.; metatarsus pr. and rt. 1-1-1-1, v. 2-2-2-2 ap. Coloration. Carapace : sides brown, pars cephalica yellow-brownish with brown spot on its end, pars thoracica white. Maxillae, labium and chelicerae yellow with brown spots. Abdomen sand-coloured, dorsum with thin brown lines. Book-lung covers yellow. Spinnerets brown. Legs yellow-brownish with white lines on dorsal and ventral sides of the segments. Epigyne and spermatheca as shown in figs. 23-24.

Xysticus striatipes L.KOCH, 1870

Material examined :

KHAKASSIA : 2f (BI), KAT, 40 km SE of Bely-Yar Vill., 15-18 km E of Novorossiyskoye Vill. [26], 380-400 m elev., 23-24.06.1990, D.L. TUVA : 1m, 1f (RINS), TER, environs of Erzin Vill., Erzin River Valley [14], 1000 m elev., 15.08.1989, D.L.

Distribution :

European-Siberian subboreal range, the easternmost localities are Burdukovo (Buryatia) and Irkutsk (KULCZYNSKI, 1901; IZMAILOVA, 1989).

Habitat :

This species is a typical steppic resident.

Xysticus vachoni SCHENKEL, 1963

Material examined :

TUVA : 1f (BI), TTA, 6-10 km N of Shuurmak Vill. (20-25 km N of Samagaltau) [12.1], 10.07.1993, D.L.; 1 f (BI), TTA, 3-5 km N of Balgazyn Vill. [12.2], 19.07.1993, D.L.; 1f (BI), TPK, 5-7 km NW of Seserlig Vill. [18], 1000-1400 m elev., 24-25.07.1989, D.L.; 1f (BI), West Sayany, Kurtushibinskiy Mt. Range, 10 km NW of Shivilig Vill., 1100-1200 m elev., 6-8.07.1990, D.L.; 1f (BI), TTD, Azasskiy Reserve, environs of Azas Lake [17], 19-23.06.1989, D.L.; 1m (BI), TUK, 8 km S of Torgalyg Vill., Torgalyg River Valley [11], 900-950 m elev., 8.05.1990, D.L. - BURYATIA : 2m, 1f (BI), Selenginskiy Distr., Tayozhniy Vill. [30], 10-17.08.1984, B.P. ZAKHAROV. - CHITA AREA : 6m, 1f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1600-1700 m elev., 5-7.08.1991, V.P. PEKIN.

Distribution :

Siberian temperate species known from Chukotka and Kolyma (MARUSIK *et al.*, 1992a) in the north, southward to China (MARUSIK, 1989a) and Japan (ONO, 1988 : as *X. jacuticus*) and westward to East Kazakhstan Area (Savelyeva, pers. comm.). Within South Siberia it was hitherto recorded from Transbaikalia (VERZHUTSKI *et al.*, 1985; IZMAILOVA, 1980, 1989 : as *X. jacuticus*).

***Xysticus viduus* KULCZYNSKI, 1898**
(sensu UTOTCHKIN, 1968)

Material examined :

TUVA : 3m (BI), TMT, 30-35 km SW of Mugur-Aksy Vill. [7.1], upper reaches of mugur River, Mongun-taiga Mt., 3100-3300 m elev., 23.07.1993, D.L.; 1m (BI), TTA, environs of Chagytay Lake [12], 1000-1200 m elev., 26.06.-2.07.1989, D.L.; 1m (BI), TTK, 20 km NW of Khol-Oozhu Vill. [13], 2100 m elev., 16.07.1993, D.L. - CHITA AREA : 6m, 2f (BI), 60-65 km SW of Kyra Vill., Sokhondo Reserve [31], 1600-1700 m elev., 28-29.06.1991, S.E. TCHERNYSHOV.

Misidentification and dubious records

Below, a list of 15 dubious species, which were previously recorded in South Siberia by different authors, is given. All these records, in our opinion, are in need of a confirmation by pertinent material.

1. *Heriaeus oblongus* SIMON, 1918 : (IZMAILOVA, 1989). ONO (1988) rejected synonymy of European *H. oblongus* with Eastpalaerctic *H. mellottei*. Thus, IZMAILOVA's record refers to *H. mellottei*.
2. *Pistius truncatus* (PALLAS, 1772) : (ODENWALL, 1901; IZMAILOVA, 1989). As LOGUNOV (1990) noted, it is very likely that all Siberian records of this species should belong to *P. undulatus*.
3. *Runcinia lateralis* (C.L. KOCH, 1838) : (IZMAILOVA, 1989).
4. *Synaema ornatum* (THORELL, 1875) : (IZMAILOVA, 1989).
5. *Synaema plorator* (O.P.-CAMBRIDGE, 1872) : (ODENWALL, 1901; IZMAILOVA, 1989).
6. *Tmarus stellio* SIMON, 1875 : (ODEMWALL, 1901; VERZHUTSKI *et al.*, 1985; IZMAILOVA, 1980, 1989). All these records without doubt belong to *T. rimosus* (see LOGUNOV, 1992a).
7. *Xysticus acerbus* THORELL 1872 : (L. KOCH, 1879).
8. *Xysticus cambridgei* (BLACKWALL, 1859) : (SHTERNBERGS, 1981)
9. *Xysticus cristatus* (CLERCK, 1757) : (ODENWALL, 1901; KULCZYNSKI, 1901; SHTERNBERGS, 1981; IZMAILOVA, 1989), apparently all these records belong to *X. audax*;
10. *Xysticus chipewa* GERTSCH, 1953 : (IZMAILOVA, 1989), this record should most likely refers to *X. britcheri*.
11. *Xysticus gallicus* SIMON, 1875 : (IZMAILOVA, 1989).
12. *Xysticus lanio* C.L.KOCH, 1835 : (VERZHUTSKI *et al.*, 1985; IZMAILOVA, 1980, 1989). It was found in Novosibirsk Area (personal dat, D.L.).
13. *Xysticus kochi* THORELL, 1872 : (IZMAILOVA, 1989).
14. *Xysticus ninni* THORELL, 1872 : (IZMAILOVA, 1989).
15. *Xysticus ulmi* (HAHN, 1831) : (KULCZYNSKI, 1901; IZMAILOVA, 1989). It was found in Novosibirsk Area (personal data, D.L.).

Misidentification and synonymy of Thomisidae from adjacent territories.

1. SCHENKEL's (1936) record of *Oxyptila rauda* SIMON, 1875 in China (Kansu) should be assigned to *O. utotchkini* MARUSIK, 1990 described recently from the Russian Far East (MARUSIK & CHEVRIZOV, 1990). Material of SCHENKEL from the Swedish Museum of Natural History (Stockholm) has been studied.
2. *Xysticus soldatovi* UTOTCHKIN, 1968 = *X. obtusfurcus* TANG & SONG, 1988, Syn.n. The drawings of the latter species given by TANG and SONG (1988) are convincing enough to assume that the authors actually dealt with *X. soldatovi*. So, Inner Mongolia (Jilin) is the southernmost locality for *X. soldatovi* that was previously known from the Khabarovsk Province (UTOTCHKIN, 1968; LOGUNOV, 1992b).

Additional records from Siberia and the Russian Far East.

Oxyptila sakhalinensis
ONO, MARUSIK & LOGUNOV, 1990
(figs. 25-27)

Material examined :

1m (BI), The Russian Far East, Sakhalin Island, Okha Distr., down reaches of Beryozovka River, September 1990, A.M. BASARUKIN.

Diagnosis :

For diagnosis of female see ONO *et al.*, 1990. The shape of the male palp is somewhat similar to those of *O. utotchkini* known from China and the Russian Far East, but can easily be distinguished by the shape of the embolic tip, the tegular apophysis, as well as by the shape of the tibial apophysis (figs. 25, 26). The spermathecae of this species (fig. 27) are distinctly different from those of related species.

Distribution :

Sakhalin (ONO *et al.*, 1990) and Hokkaido (ONO & YASUDA, 1992).

Description :

MALE. Measurements. Carapace 1.40 long, 1.28 wide. Abdomen 1.43 long, 1.50 wide. Clypeal height 0.15. MOA-WA 0.26, MOA-WP 0.26, MOA-L 0.31. AME 0.07, ALE 0.13, PME 0.06, PLE 0.17, AME-AME 0.14, AME-ALE 0.06, PME-PME 0.14, PME-PLE 0.21. Length of the leg segments. Leg I 1.10 + 0.53 + 0.79 + 0.79 + 0.50. Leg II 1.04 + 0.560.80 + 0.74 + 0.49. Leg III 0.73 + 0.40 + 0.51 + 0.44 + 0.34. Leg IV 0.80 + 0.37 + 0.44 + 0.46 + 0.33. Spination of leg I : femur pr. 0-1-0, tibia v. 2-2, metatarsus v. 2-2-2 ap. Coloration. Carapace dark brown with white piping and V-shaped yellow

spot centrally. Basal part of the carapace with yellow triangular spot. Yellow around eyes. Sternum, maxillae, labium and chelicerae dark-brown. Abdomen whitish-brown with white patches. Book-lung covers yellow. Spinnerets brownish. Legs I and II : femur brown, remaining segments yellowish. Legs III and IV brownish-yellow, but femora darker, brown. Palpal structure as shown in figs. 25, 26.

FEMALE. For description see in ONO *et al.* (1990).

***Xysticus bermani* MARUSIK sp. n.**
(figs. 16, 17, 19)

Material examined :

Holotype : 1m (ZMMU), Yakutia, Indigirka River upper reaches, environs of Balagannakh, 1978, D.I. BERMAN. Paratypes : Yakutia : 13m, 11f (ZMMU), together with holotype; 1m (IBPN), Ust'-Aldan Distr., Kuruolaakh Alas, forest outskirt, 20.07.1987, N.N. VINOKUROV.

Diagnosis :

Closely related to *X. sjostedti*, from which it can be distinguished by very small but distinct differences in the shape of the copulatory organs. Males of the new species have a rounded tegular ridge separated from the distal end of the tegulum, while males of *X. sjostedti* have a somewhat angled ridge touching the distal part of the tegulum. Males of these two species can be distinguished by the shape of the embolic base and that of the

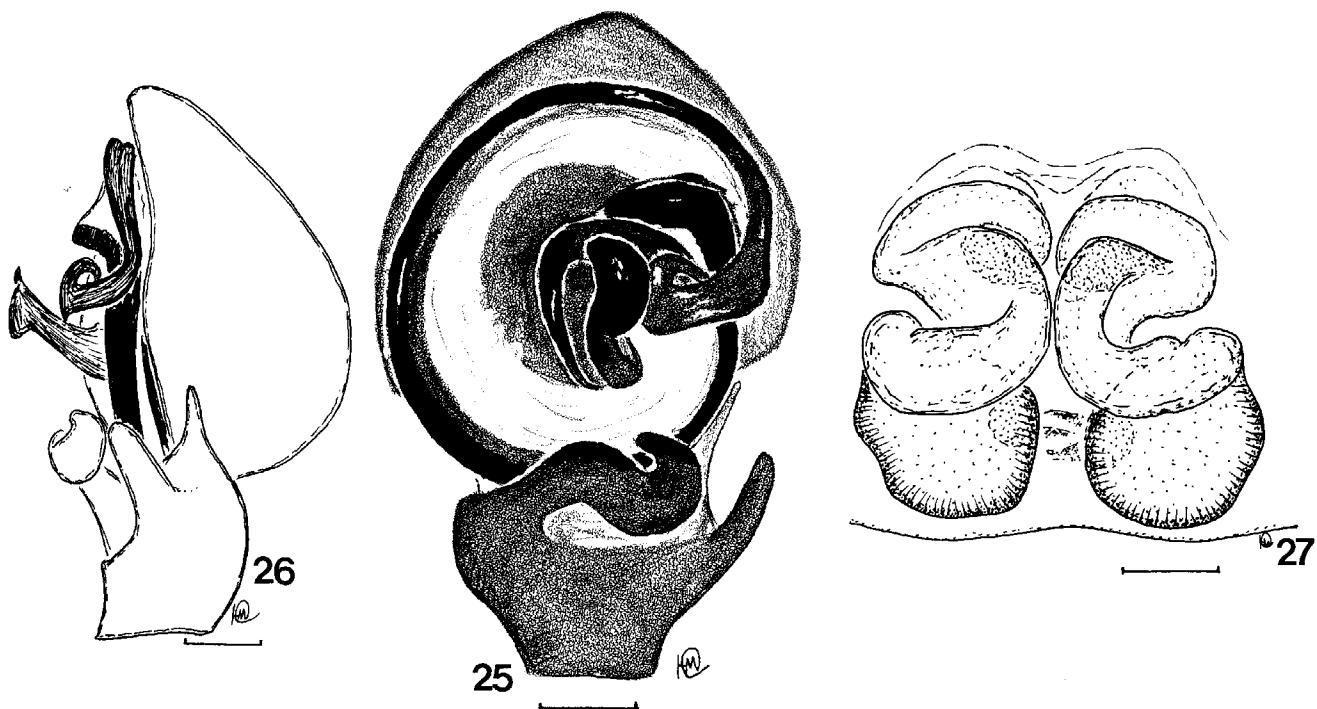
secondary ridge, while the best diagnostic character is the presence in *X. sjostedti* of a long "ridge" parallel to the true tegular ridge, and the absence of this structure in the new species. The epigynes of both species are very similar, while in *X. bermani* the septum is somewhat longer and the connecting (intromittent) ducts shorter (cf. figs. 18 and 19).

Distribution :

North-east Yakutia. This species was recorded from four localities from yakutia under the name *X. sjostedti* (MARUSIK *et al.*, 1993). Specimens from two sites were lost, so we cannot check the identification (which was probably *X. sjostedti*).

Description :

MALE. Measurements. Carapace 2.68 long, 2.65 wide. Abdomen 3.38 long, 2.83 wide. Clypeal height 0.13. MOA-WA 0.50, MOA-WP 0.56, MOA-L 0.48. AME 0.08, ALE 0.13, PME 0.09, PLE 0.15, AME-AME 0.35, AME-ALE 0.30, PME-PME 0.38, PME-PLE 0.36. Length of the leg segments. Leg I 2.60 + 1.25 + 1.88 + 1.95 + 1.08. Leg II 2.48 + 1.20 + 1.85 + 1.80 + 1.02. Leg III 1.75 + 0.83 + 1.08 + 1.00 + 0.70. Leg IV 1.70 + 0.75 + 1.08 + 1.18 + 0.70. Spination of the leg I : femur pr. 0-1-1-1-0; tibia pr. and rt. 1-1-1, v. 2-2-2-2 ap.; metatarsus pr. and rt. 1-1-1 or 1-1-1-1-1, v. 2-2-2-2 ap. Coloration. Carapace yellow-brown with a wide yellowish medial band and a small central dark-brown spot. Sternum, maxillae, labium and chelicerae spotted, yellow-brown. Abdomen grey with brown spots. Book-



Figs. 25-27. – Genitalia of *Oxyptila sakhalinensis*. 25, 26. male left palp, ventral and retrolateral view, respectively; 27. epigyne, dorsal view. Scale - 0.1 mm.

lung covers yellow. Spinnerets brownish. All legs yellow-brown, but metatarsi and tarsi yellow. Palpal structure as shown in figs. 16.

FEMALE. Measurements. Carapace 3.75 long, 3.55 wide. Abdomen 5.00 long, 4.70 wide. Clypeal height 0.25. MOA-WA 0.78, MOA-WP 0.85, MOA-L 0.68. AME 0.16, ALE 0.20, PME 0.13, PLE 0.15, AME-AME 0.50, AME-ALE 0.30, PME-PME 0.58, PME-PLE 0.55. Length of the leg segments. Leg I 2.83 + 1.68 + 2.10 + 1.85 + 0.83. Leg II 2.80 + 1.53 + 2.08 + 1.83 + 1.00. Leg III 2.13 + 1.28 + 1.25 + 1.20 + 0.80. Leg IV 2.68 + 1.13 + 1.40 + 1.45 + 0.80. Spination of the leg I: femur pr. 0-1-1-1-0; tibia pr. 0-1 or 1-1, v. 5 or more pairs; metatarsus pr. 1-1-1-1 ap. or 1-1-1 ap., rt. 1-0-1 ap. or 1-1-1 ap., v. 5 pairs or more. Coloration. Carapace brown with a wide yellow medial band and a dark brown central spot. Sternum, labium, maxillae and chelicerae yellow, brownish spotted. Abdomen yellow with numerous brown spots. Book-lung covers yellow. Spinnerets yellow-brown. All legs yellow with brown patches. Epigyne and spermatheca as shown in fig. 17, 19.

DANILOV, S.N. & KURTOVA, O.G. 1991. [Materials on the spiders fauna (Aranei) of the Sokhondo Reserve]. - Entomologicheskie problemy Baikal'skogo regiona. Ulan-Ude : 34-35 [in Russian].

DONDALE, C.D. & REDNER, J.H. 1978. The crab spiders of Canada and Alaska (Araneae : Philodromidae and Thomisidae). - The insects and arachnids of Canada, Part 5 : 1-255.

ESJUNIN, S.L. 1992. [Notes on the spider fauna (Arachnida, Aranei) of Urals. 1. New findings of the crab-spiders (Philodromidae, Thomisidae) with notes on taxonomy. - Zoolo-gitcheskiy Zhurnal, 71(11) : 33-41 [in Russian].

EJKOV, K.Y. 1988. [Spiders (Aranei) of Central Siberia.] (In Russian). - In : Rogatcheva, E.V. (ed.), Materials on the fauna of Middle Siberia and the adjacent areas of Mongolia, Moscow : 101-155 [in Russian].

GORODKOV, K.B. 1984. [Range types of insects of tundra and forests zones of European Part of the USSR]. - Provisional atlas of the insects of the European Part of the USSR, Atlas, Maps 179-221, Nauka, Leningrad : 3-20 [in Russian].

HEIMER, S. & NENTWIG, W. 1991. Spinnen Mitteleuropas. - Ein Bestimmungsbuch, Verlag Paul Parey, Berlin : 1-543.

HIPPA, H., KOPONEN, S. & OKSALA, I. 1986. Revision and classification of the Holarctic species of the *Ozyptila rauda* group (Araneae, Thomisidae). - Annales Zoologici Fennici, 23 : 321-328.

IZMAILOVA, M.V. 1978. [New data on *Xysticus sibiricus* KULCZYNSKI, 1908]. - Fauna Sibiri i ee khozhyastvennoe ispol'zovanie, Irkutsk : 18-19 [in Russian].

IZMAILOVA, M.V. 1980. [Spiders of the Tcharkskaya Valley]. - Tchlenistonogie Sibiri i Dal'nego Vostoka, Irkutsk : 108-112 [in Russian].

IZMAILOVA, M.V. 1989. [The spider fauna of East Siberia], Irkutsk : 1-180 [in Russian]. KIM, J.P. 1991. A check list of Korean spiders // Korean Arachnology, 6(2) : 275-291.

KOCH, L. 1879. Arachniden aus Sibirien und Nowaja Semlja eingessamelt von der schwedischen Expedition in Jahre 1875. - Kongl. Svensk. Vrh. Acad. Handl., 16(5) : 1-136.

KULCZYNSKI, W. 1901. Arachnoidea. - Zichy Dritte asiatische Forschungsreise, Budapest, II : 311-369.

LOGUNOV, D.V. 1990. [New data on the spiders of the families Atypidae, Araneidae, Pisauridae and Thomisidae in the USSR fauna]. - Tchlenistonogie i gel'minty, Novosibirsk : 33-43 [in Russian].

LOGUNOV, D.V. 1992a. [A review of the spider genus *Tmarus* SIMON, 1875 (Araneae, Thomisidae) in the USSR fauna, with a description of a new species]. - Siberian biological journal, (1) : 61-73 [in Russian].

LOGUNOV, D.V. 1992b. [On the spider fauna of the Bolshekhekhtsyrski State Reserve (Khabarovsk Province). I. Families Araneidae, Lycosidae, Philodromidae, Tetragnathidae and Thomisidae. - Siberian biological journal, 4 : 56-68 [in Russian].

LOGUNOV, D.V. in press [1994]. Contribution to the northern Asian fauna of the crab spider genus *Xysticus* C.L. KOCH, 1835 (Araneae, Thomisidae). - Arthropoda Selecta, 3.

MARUSIK, Y.M. 1988. New species of spiders (Aranei) from the upper Kolyma. - Zoologicheskiy Zhurnal, 67 (10) : 1469-1482 [in Russian].

Acknowledgements

We are very grateful to the curators of the arachnological collections : Drs. S. KOPONEN and M. SAARISTO (Zoological Museum of Turku University), Dr. C.D. DONDALE (Canadian National Collections, Ottawa), as well as to the following collectors : A.A. ALEKSEEV, A.M. BASARUKIN, D.I. BERMAN, A.P. KONONENKO, O.V. LYAKHOV, A.V. MARCHENKO, V.G. MORDKOVICH, T.V. PAVLENKO, V.P. PEKIN, M.T. SHTERNBERGS, S.E. TCHERNYSHOV, V. VAGIN, N.N. VINOKUROV, B.P. ZAKHAROV and V.K. ZINCHENKO who gave us material. The English was kindly checked by Dr. Robin LEECH, Edmonton, to whom we are much obliged. Finally, many thanks to two referees, Drs. Anna S. DIPPENAAR-SCHOEMAN and John MURPHY, who critically checked the typescript and indicated many defects helping eliminate them. This contribution has been partly sponsored by the Soros Foundation.

References

- DANILOV, S.N. 1990. [Spider fauna of Transbaikalia]. - Fauna i ekologiya tchlenistonogikh Zabaikaliya i Pribaikaliya. Ulan-Ude. P. 75-92 [in Russian].
- DANILOV, S.N. 1993. Crab spiders (Aranei, Thomisidae, Philodromidae) of Transbaikalia. 1. - Arthropoda Selecta, 2(1) : 61-67.

- MARUSIK, Y.M. 1989a. Two new species of the spider genus *Xysticus* and synonymy of crab spiders (Aranei, Thomisidae, Philodromidae) from Siberia. - *Zoologicheskiy Zhurnal*, 68 (4) : 140-145 [in Russian].
- MARUSIK, Y.M. 1989b. [New data on the fauna and synonymy of spiders from the USSR]. - *Fauna i ekologiya paukov i skorpionov*, Moscow : 39-52 [in Russian].
- MARUSIK, Y.M. & CHEVRIZOV, B.P. 1990. Three new crab spiders from the Asian part of the USSR (Arachnida, Araneae : Thomisidae). - *Reichenbachia*, 27 (15) : 89-93.
- MARUSIK, Y.M., ESKOV, K.Y. & KIM, J.P. 1992a. A check list of spiders (Aranei) of Northeast Asia. - *Korean Arachnology*, 8 (1-2) : 129-158.
- MARUSIK, Y.M., ESKOV, K.Y., LOGUNOV, D.V. & BASARUKIN, A.M. 1992b. A check-list of spiders (Arachnida, Aranei) from Sakhalin and Kurile Islands. - *Arthropoda Selecta*, 1 (4) : 73-85.
- MARUSIK, Y.M., ESKOV, K.Y., KOPONEN, S. & VINOKUROV, N.N. 1993. A check-list of the spiders (Aranei) of Yakutia, Siberia. - *Arthropoda Selecta*, 2 (2) : 63-79.
- MARUSIK, Y.M. & LOGUNOV, D.V. 1990. The crab spider of Middle Asia, USSR (Aranei, Thomisidae). 1. Descriptions and notes on distribution of some species. - *Korean Arachnology*, 6 (1) : 31-62.
- MARUSIK, Y.M. & LOGUNOV, D.V. in press. The crab spiders of Middle Asia, USSR (Aranei). 2. - *Beitrage Araneologie*.
- ODENWALL, E. 1901. Araneae nonnullae Sibiriae Transbaikensis. - *Ofvers. Finska vet. Soc. Forh.*, 43 : 255-173.
- ONO, H. 1985. Revision einiger Arten der Familie Thomisidae (Arachnida, Araneae) aus Japan. - *Bulletin National. Science Museum*, Tokyo, Ser.A, 11 (1) : 19-39.
- ONO, H. 1988. A revisional study of the spider family Thomisidae (Arachnida, Araneae) of Japan, Tokyo : 1-252.
- ONO, H., MARUSIK Y.M. & LOGUNOV D.V. 1990. Spiders of the family Thomisidae from Sakhalin and the Kurile Islands. - *Acta Arachnology*, 39 : 7-19.
- ONO, H. & YASUDA, N. 1992. Records of thomisid spiders (Arachnida, Araneae) from Hokkaido, Japan. - *Bulletin, Sounkyo Museum National History*, 12 : 1-13 [in Japanese].
- OVTSHARENKO, V.I. 1979. [Spiders of the families Ganphosidae, Thomisidae, Lycosidae (Aranei) in the Great Caucasus. - *Trudy Zoologicheskogo Instituta*, Leningrad, 85 : 39-53 [in Russian].
- PAIK, K.Y. 1973. [Three new species of genus *Xysticus* (Araneae, Thomisidae)]. - *Res. Rev. Kyungpook National University*, 17 : 105-116 [in Korean].
- PLATNICK, N. 1993. Advances in spider taxonomy 1988-1991 with synonymies and transfers 1940-1980, New York : 1-846.
- SCHENKEL, E. 1936. Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas. Araneae. - *Ark. Zool.*, 29A(1) : 1-314.
- SCHENKEL, E. 1963. Ostasiatische Spinnen aus dem Museum d'Histoire Naturelle de Paris. - *Mémoires du Museum national d'Histoire Naturelle*, Serie A, Zologie, 24 (2) : 289-494.
- SHTERNBERGS, M.T. 1977. [Materials on the spider fauna (Aranei) of the "Stolby" Reserve]. - *Trudy gosudarstvennogo Zapovednika "Stolby"*, 11 : 87-90 [in Russian].
- SHTERNBERGS, M.T. 1981. [Materials on the spider fauna (Aranei) of the Barguzinskiy Reserve]. - *Fauna i ekologija nazemnykh tchlenistonogikh Sibiri*, Irkutsk : 130-133 [in Rusian].
- TANG, L. & SONG, D.X. 1982. [On new species of the family Thomisidae from China (Arachnida : Araneae)]. - *Acta Zootaxonomica Sinica*, 13 (3) : 245-260 [in Chinese].
- UTOTCHKIN, A.S. 1960. [Materials on the spiders fauna of the genus *Oxyptila* Sim. in the USSR]. - *Utchyonye zapiski Permskogo Gosudarstvennogo Universiteta*, 13 (1) : 47-61 [in Russian].
- UTOTCHKIN, A.S. 1968. [The spider genus *Xysticus* in the USSR fauna. Key to species.], Perm : 1- 73 [in Russian].
- VERZHUTSKI, B.N., BESSOLITCHYNA, E.P. & SERYSHEV A.A. 1985. [The cadastre of the araneopopulation in hollows of the Stanovoy Mt. Range]. - *Nazemnye tchlenistonogie Sibiri i Dal'nego Vostoka*, Irkutsk : 117-134. [in Russian].
- YAGINUMA, T. 1986. Spiders of Japan in color, Hoikusha : 1-305 [in Japanese].
- ZHU, C.D. & WEN, Z.G. 1981. [Chinese spiders of genus *Tmarus* (Araneae : Thomisidae)]. - *Journal Bethune med. University*, 7 (4) : 24-27 [in Chinese].

Dmitri V. LOGUNOV
Zoological Museum
of the Biological Institute,
Russian Academy of Sciences,
Frunze street 11,
Novosibirsk,
630091, Russia.

Yuri M. MARUSIK
Institute for Biological Problems
of the North,
Russian Academy of Sciences,
K. Marx
Prospekt 24,
Magadan,
685010, Russia.