

THE CRAB SPIDERS OF MIDDLE ASIA (Aranei, Thomisidae), 2

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Abstract: The crab spider fauna (Aranei, Thomisidae) of middle Asia is investigated in a second part, a checklist of Thomisidae from Middle Asia and Kazakhstan is given. The following species are described for the first time: Synema utotchkini, Xysticus abramov, Xysticus pseudoluctuosus, Xysticus ovadan, Xysticus turcmenicus and Xysticus tyshchenkoi.

Introduction and materials

Since the manuscript of our communication 1 dealing with the thomisids of Middle Asia (MARUSIK, LOGUNOV, 1990) was sent to press, a number of species and specimens were found in different museums

and was determined. The material treated herein is larger than in the first part, and comes from Zoological Museum of Moscow State University (ZMMU), Zoological Museum of Biological Institute, Novosibirsk (BI) (containing a large collection of Asian arachnids donated recently by A.P.KONONENKO), Institute for biological Problems of the North (IBPN), Magadan, Zoological Department of Pedagogical Institute, Siedlce, Poland (PIS), Paleontological Institute, Moscow, and Zoological Institute of Kazakhstan Academy of Sciences, Alma-Ata (IZA). Some of the type specimens have been examined in the Senckenberg Museum, Frankfurt (SMF), and in the Naturhistoriska Riksmuseet, Stockholm (NRS). Thanks to additional material 6 species new to science, 1 new to USSR, and 4 new to Middle Asia were found, as well as 9 species names were synonymized.

All the materials have been shared, as indicated hereinafter, between the collections of the ZMMU, BI, PIS, Institute for Biological Problems of the North, Magadan (IBPN), SMF, NRS, and the coll. of Jörg WUNDERLICH, Straubenhardt (JW). Geographical names used in this paper follow those used on the map of the USSR published by the National Geographic Society (National Geographic Magazine, March 1990).

The names of collectors are abbreviated in the text: A.S.DANILEVSKY (A.D.), A.A.FYODOROV (A.F.), A.P.KONONENKO (A.K.), A.A.ZYUZIN (A.Z.), Ch.K.TARABAYEV (C.T.), E.M.ANDREYEVA (E.A.), G.T.KUZNETSOV (G.K.), K.Yu.ESKOV (K.E.), Kh.NASREDDINOV (K.N.), M.ZAPRYAGAYEV (M.Z.), N.S.USTINOVA (N.U.), O.V.LYAKHOV (O.L.), P.P.VTOROV (P.V.), S.L.ZONSHTEIN (S.Z.), T.LUKAREVSKAYA (T.L.), V.CHIKATUNOV (V.C.), V.Ya.FET (V.F.), Yu.LEBEDEV (Y.L.).

Abbreviations used in the present paper are the same as in first part. All measurements are in mm; if not otherwise indicated, the scale is 0.1 mm.

The following list summarizes new facts given in this paper:

New species described:

Synema utotchkini sp.n. - from Kazakhstan
Xysticus abramov sp.n. - from Tajikistan;
Xysticus pseudoluctuosus sp.n. - from Tajikistan;
Xysticus ovadan sp.n. - from Turkmenistan;
Xysticus turkmenicus sp.n. - from Middle Asia;
Xysticus tyshchenkoi sp.n. - from Middle Asia.

Unknown females described:

Xysticus turlan MARUSIK et LOGUNOV, 1990;
Xysticus xysticiformis (CAPORIACCO, 1935);
Xysticus zonshteini MARUSIK, 1989.

Unknown males described:

Stiphropus strandi SPASSKY, 1938;
Thomisus zyuzini MARUSIK et LOGUNOV, 1990.

New synonyms:

Heriaeus sareptanus LOERBROKS, 1983 = Heriaeus horridus TYSHCHENKO, 1964;
Ozyptila clavidorsum ROEWER, 1959 ?= Xysticus loeffleri ROEWER, 1955;
Xysticus afghanus ROEWER, 1961 = Xysticus loeffleri ROEWER, 1955;
Xysticus crassus TYSHCHENKO, 1965 = Ozyptila pseudoblitea SIMON, 1880;
Xysticus furcillifer SCHENKEL, 1936 = Xysticus xysticiformis (CAPORIACCO, 1935);
Xysticus kiritschenkoi UTOTCHKIN, 1968 = Xysticus dzhungaricus TYSHCHENKO, 1965;
Xysticus schenkeli MARUSIK, 1989 = Ozyptila pseudoblitea SIMON, 1980;
Xysticus turanicus CHARITONOV, 1969 = Xysticus loeffleri ROEWER, 1955.

Species new for the USSR:

Xysticus inaequalis KULCZYNSKI.

Species new for the Middle Asia:

Ozyptila conostyla HIPPA et al.;
Ozyptila rauda SIMON;
Pistis undulatus KARSCH;
Tmarus horvathi KULCZYNSKI.

TAXONOMIC SURVEY OF THE SPECIES

Diaeae suspicosa O.P.-CAMBRIDGE, 1885

Material examined: Kazakhstan: 1♀, East Kazakhstan Area, Saur Mt. Range, Kenderlyk River Basin, Akkolka River Valley, 06.1990 (K.E.) (IBPN). Uzbekistan: 1♀, Dzharkurgan, 13.06.1966 (PIS). Kirghizia: 1♂, 3♀, Yarodar, 10.06.1979 (S.Z.) (ZMMU). Tajikistan: North slope of Alaiski Mt. Range: 1♀, Kirghiz-Ata River Valley, 40 km out of Naukat, 2850 m, 22.06.1970 (A.KOPNOV) (PIS); 1♀, left tributary of Sokh River, Sary-Chilim, 2300 m, 25.06.1970 (M.Z.) (PIS); 1♀, environs of Shakhimardan, Kurbon-Kul' Lake, 1700-1800, 3.10.1970 (PIS); 4♂, 9♀, left tributary of Sokh river, Mazar near Ravuch Kishlak, 26.06.1970 (E.A.) (PIS). 1♀, Ishkashim Distr., Zanudzh Kishlak, 19.08.1971 (N.MIRALIMBEKOV) (PIS); 1♀, Vanch River Valley, canyon near Tekhary Kishlak, 2.06.1970 (E.A.) (PIS); 1♂, Kondara, Kvak,

8-12.06.1967 (PIS); 1♂, 3♀, Petra I Mt. Range, Obi-Khingou, 8 km from Sabzikharv., 06.1968 (V.C.) (PIS); 1♂, Khozratisho Mt. Range, 15-20th km of the Muminabad-Chil'dukhtaron Road, 27.05.1966 (PIS); 1♂, Zeravshan Mt. Range, Aman-Kutan, 29.05.1965 (A.D.) (PIS); 1♂, Shugnanski Mt. Range, coinfluence of Gunta and Shakhdary Rivers, Sangou Canyon, 18.05.1970 (L.ZHARKOVA) (PIS).

Distribution: West China, Tajikistan, Kirghizia, East Uzbekistan and East Kazakhstan. East Kazakhstan Area is the north-easternmost point of distribution, and Dzharkurgan is the westernmost point of distribution.

Heriaeus buffonopsis LOERBROKS, 1983

H.buffonopsis LOERBROKS, 1983: 127, figs. 22, 77-80 (♀ and ♂).
H.buffonopsis: UTOTCHKIN, 1985: figs. 4, 25-26 (♂).

Material examined: Kazakhstan, 1♂, Dzhambul Area, Moyinkum Distr., Karabüget Vill., 29.06.1989 (A.Z.) (BI). Turkmenistan, 1♂, Bad-khyz Reserve, Kepele, Er-Oilan-Duz, 06-07.1977 (V.F.) (ZMMU).

Distribution: From Krasnowodsk, Turkmenistan (LOERBROKS, 1983) northeast to the Dzhambul Area.

Heriaeus horridus TYSCHENKO, 1965 Figs. 1-3

H.horridus TYSCHENKO, 1965: 698-699, figs. 4a-c (♀ and ♂), lectotype male (designated here) and paratype ♀ from Kokshetau and Tengiz Lake, in ZIL, examined.

Heriaeus sareptanus LOERBROKS, 1983: 128-130, figs. 23, 81-84 (♀ and ♂), holotype ♂ and paratypes 3♀ from Sarepta, in Zoological Museum of Humboldt University, Berlin, not examined. Syn.n.

Heriaeus horridus: LOERBROKS, 1983: figs. 88-89 (copies from TYSCHENKO, 1965).

Heriaeus sareptanus: MARUSIK, LOGUNOV, 1990: figs. 57-58 (♂).

Material examined: Kazakhstan: 2♂, Ural'sk Area, environs of Dzhanybek, 5.08.1986 (K.G.MIKHAILOV) (BI); 1♀, Pavlodar area, 15-20 km SE of Pavlodar, 1.07.1990 (O.L.) (BI); 1♂, 25 km SW of Pavlodar Town, 30.06.1990 (O.L.) (BI); East Kazakhstan Area: 11, Saur Mt. Range, Kenderlyk River basin, Akkolka River Valley, 06.1990 (K.E.) (IBPN); 2♂, environs of Zaisan Town, Djeminey Canyon, 2-4.06.1990 (K.E.) (IBPN).

Measurements (mm).

Male/Female. Carapace: 1.70/2.33 long, 1.53/2.50 wide, clypeus 0.20/0.21, MOA-WA 0.34/0.50, MOA-WP 0.30/0.46, MOA-L 0.40/0.58, chelicerae 0.56/0.71, AME 0.06/0.07, ALE 0.08/0.09, PME 0.06/0.06, PLE 0.07/0.07, AME-AME 0.23/0.40, AME-ALE 0.11/0.16, PME-PME 0.20/0.36, PME-PLE 0.20/0.31.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	3.13/2.60	0.75/1.28	2.70/2.18	3.33/2.35	1.10/0.98
II	2.63/2.25	0.75/1.08	2.08/1.68	2.55/1.93	0.95/0.83
III	1.68/1.45	0.58/0.75	1.10/1.00	1.18/1.08	0.60/0.63
IV	1.90/1.78	0.55/0.65	1.28/1.20	1.43/1.25	0.68/0.75

Description. Male. Light cream-coloured, carapace with two red brown longitudinal bands. Carapace and abdomen covered with dense and long (ca. 0.50 mm) black, erect, strong setae. All leg segments covered with dense, long hairs. Legs lacking spines. Palp as in the Figs. 1-2, lateral tibial apophysis long but not sharp apically, shape of it variable.

Female. Colouration as in male, carapace and abdomen lacking strong setae (spines); all of the body and legs covered with dense, whitish, long, curved hairs. Abdomen with the same pattern as in Fig. 4a (TYSCHENKO, 1965). Leg I spination: femur p. 1-1-1, v. 2-2-2, tibia p. 1-1-1, v. 2-2-2-1-2-2-1-2-2ap., metatarsus p. 1-1-1.ap., r. 1-1, v. 2-2-2-2-2-2-2. Epigyne as in fig. 3, weakly sclerotized, with wide scape.

Diagnosis. Males of H.horridus can be separated from all other representatives of Heriaeus by the characteristic shape of both lateral tibial apophysis and embolus. Females can be distinguished from other Heriaeus species by the shape of the epigynal scape (apical margin of epigynal fovea).

Distribution: North Kazakhstan from Uralsk Area east to Saur Mt. Range.

Heriaeus spinipalpus LOERBROK, 1983

H.spinipalpus LOERBROKS, 1983: 122-123, figs. 20, 65-68, 95 (♀ and ♂).

Material examined: Turkmenistan, 1♂, 1♀, West Kopetdagh, Aidere, 3.07.1979 (V.F.) (ZMMU).

Distribution: South-west Turkmenistan only.

Misumenops tricuspidatus (FABRICIUS, 1775)

M.tricuspidatus: ONO, 1988: 162-168, figs. 169-174 (♀ and ♂).

M.tricuspidatus: ONO, et al., 1990: 42-44 (♀ and ♂).

Material examined: Kazakhstan, Pavlodar Area: 3♀, Environs of Pavlodar, 07-08.1989 (O.L.) (1♀ BI, 2♀ JW); 1♀, 25 km N of Pavlodar, 19.06.1990 (O.L.) (JW); 5♂, Maisky Distr., Kirovski Sovkhoz, Irtysh River Valley, 20.08.1989 (O.L.) (BI); 1♂, environs of Imishevo, Irtysh River Valley, 31.08.1989 (O.L.) (BI). Kirghizia, 1♀, Yarodar, 10.06.1979 (S.Z.) (ZMMU).

Distribution: Transpaleartic range, from West Europe east to Japan (ONO, 1988).

Ozyptila atomaria (PANZER, 1801)

Material examined: Kirghizia: 1♀, Yarodar, 10.06.1979 (S.Z.) (ZMMU); 3♀, Terskey-Alatau, Pokrovka Vill., Chon-Kyzyl-Su, 3000 m, 28.09.1969 (A.K.) (JW); 1♀, Karagoi Research Station near Naukat, 2400 m, 5.10.1970 (E.A.) (PIS). Tajikistan, North slope of Alaiski Mt. Range: 1♂, Shakhimardan, Kurban-Kul' Lake, 1600-1800 m, 2.10.1970 (E.A.) (PIS); 1♂, 10-15 km off Naukat, 4.10.1970 (L.ZHARKOVA) (PIS).

Distribution: Transpaleartic range.

Ozyptila conostyla HIPPA, KOPONEN et OKSALA, 1986 Figs. 4-7

O.conostyla HIPPA et al., 1986: 327, figs. 1 d & k (♂), in Zoological Museum of Turku University.

Material examined: Turkmenistan, 3♂, SW Kopetdagh, Syunt Mt., 1200 m, 2-15.04.1985 (T.L.) (2♂ ZMMU, 1m JW).

Distribution: Turkey (Hippa et al., 1986), East Caucasus (MARUSIK, 1989b) and South-West Turkmenistan.

Ozyptila lugubris (KRONEBERG, 1875)

Material examined: Kazakhstan: 8♀, Mangistaus (Mangyshlak) Area, Yeraliev Distr., Ustyurt Plateau, Ustyurt Reserve, 21.05.1989 (A.Z.) (BI); East Kazakhstan Area: 1♀, 4♂, Saur Mt. Range, Kenderlyk River Basin, Akkolka River Valley, .06.1990 (K.E.) (IBPN); 1♂, environs of Glubokoye Vill., 2-9.09.1990 (V.K.ZINCHENKO) (BI). 1♀, Pavlodar Area, environs of Zarya Sovkhoz, 8.05.1990 (O.L.) (BI); 2♀, Dzhambul Area, Sarysu Distr., 75 km NE of Ulanbel', Betpak-Dala Desert, 5.06.1990 (A.F., A.Z.) (BI); 2♂, Alma-Ata Area, NE bank of Kaptchagay Water Reservoir, 9.09.1989 (A.Z., A.F.) (BI). Kirghizia: 6♂, 9♀, Kungey-Alatau Mt. Range, Toru-Aigyr, 2000m, 1969-1970 (A.K., KUZNETSOV) (BI, JW); 2♂, 1♀, Bos-Barmak, 24.08.

1969 (A.K.) (BI); 1♀, Osh Area, Charvak Vill., Kara-Unkyur River.. 13.09.1985 (L.A.NESOV) (BI). Turkmenistan: 1♂, Krasnovodsk Area, Chil'mamedkum Sands, 10.1985 (E.KHASHNIKOV) (ZMMU); 1♂, 1♀, NW Turkmenia, Kafisgashem Mt. Range, 55 00'E, 41 00'N, 5.11.1982 (V.F.) (ZMMU); 1♂, Ashkhabad/ Berzengi Vill., 11.1979 (V.F.) (ZMMU). Tajikistan: 1♂, same locality, 25.11.-1.12.1980 (G.K.) (ZMMU). Shugnanski Mt. Range, environs of Khorog, Sangou-dara, 3600-3860 m, 15.10.1970 (PIS); 2♀, Shaarbuz, Tchili-Tchor-Tchemana, 23.04.1979 (A.K.) (BI).

Distribution: Widespread in Middle Asia, from NW Kazakhstan, north-east to East Kazakhstan Area, south to Tajikistan and Afghanistan. SCHENKEL's (1936) record from China was based on a juvenile specimen, which can belongs to Xysticus inqualis or another species.

Ozyptila praticola (C.L.KOCH, 1873)

Material examined: Kazakhstan: 1♀, Environs of Pavlodar, 25.05.1989 (O.L.) (BI); 2f, East Kazakhstan Area, Saur Mt. Range, Kenderlyk River basin, Akkolka River Valley, .06.1990 (K.E.) (IBPN). Kirghizia, 3f, Osh Distr., Tashkumyr, environs of Sarykamyshsay, 13.09.1985 (D.V.LOGUNOV) (BI).

Distribution: Europe, Middle Asia and coastal parts of North America (DONDALE, REDNER, 1975).

Ozyptila pseudoblitea SIMON, 1880

Xysticus crassus TYSHCHENKO, 1965: 699-701, figs. 5a,b, in ZIL, but recently in PSU. Syn.n. et comb.n.
X. schenkeli MARUSIK, 1989: MARUSIK, 1989a: 144 (nom.n. pro X. bonneti SCHENKEL, 1963). Syn.n.
O. pseudoblitea: SONG, 1987: 258-260, figs. 124 a-d.

Material examined: Kazakhstan, 1♀, East Kazakhstan Area, Saur Mt. Range, Saikan Pass, 1880 m, 7.06.1990 (K.E.) (IBPN).

Distribution: From North-East Kazakhstan east to Beijing.

Ozyptila rauda SIMON, 1875

O. rauda: HIPPA et al., 1986: 324-325, figs. 1a,e,f, 2a,c, 3c (♀ and ♂).

Material examined: Kazakhstan: Pavlodar Area: 1♀, Yermak Distr., environs of Maly Kalkaman Lake, 11.04.1990 (O.L.) (BI); 1♀, Maisky Distr., Akzysu River, 6.05.1990 (O.L.) (JW). 2♀, East Kazakhstan Area, Saur Mt. Range, Saikan Pass, 1880 m, 7.06.1990 (K.E.).

Distribution: European - West Siberian disjunctive range. North Kazakhstan is southernmost point of distribution. SCHENKEL's (1936) record from China was based on a misidentified specimen of O. utotchkini MARUSIK, 1990 (specimen in NRS, examined).

Ozyptila tricoloripes STRAND, 1913 Fig. 8

- O. tricoloripes: LEVY, 1975: 167-168, figs. 22-23 (♂).
O. pickardi LEVY, 1975: 165-167, figs. 19-21 (♀).
O. tricoloripes: DUNIN, 1984: fig. 7 (♂).

Material examined: Turkmenistan: 8♀, SW Kopetdag, Syunt-Khasardagh Reserve, 1982 (N.U.) (7♀ BI, 1♀ JW); 3♀, SW Kopetdag, Palvanzav, 800 m, 12.08.1985 (V.F.) (ZMMU); 5♂, 1♀, W.Kopetdag, 11-16.10.1984 (T.A.SORGINA) (1♂ JW; 1♂ BI; 3♂, 1♀ ZMMU).

Distribution: Israel (LEVY, 1975), Azerbaijan (DUNIN, 1984) and South-West Turkmenistan (FET, 1982).

Pistius undulatus KARSCH, 1879

P. undulatus: ONO, 1985: 20-23, figs. 1-4 (♀ and ♂); ONO et al., 1990: figs. 48-50 (♀ and ♂); LOGUNOV, 1990: fig. 5a.

Material examined: Kazakhstan, East Kazakhstan Area: 1♀, Saur Mt. Range, Kenderlyk River basin, Akkolka River Valley, 06.1990 (K.E.); 1♂, environs of Zaisan Town, Djeminey Canyon, 2-4.06.1990 (K.E.).

Distribution: South Siberian - Manchurian distribution, from Kurgan Area (LOGUNOV, 1990) at the north-west, south-east to Japan, Korea, and China (ONO, 1988).

Runcinia lateralis (C.L.KOCH, 1838)

R. lateralis: LEVY, 1973: 132-134, figs. 53-56 (♀ and ♂).

Material examined: Turkmenistan, 1♂, Ashhabad, Transcaspia, 24.04.1902 (?) (BI). Tajikstan: 1♂, Takob, 12.07.1965 (A.D.) (PIS); 1♂, Khozratisho, 8-15 km from Muminabad, 15.06.1966 (PIS).

Distribution: West Palearctic: Mediterranean, Middle Asia and China (?) (SCHENKEL, 1963).

Runcinia tarabayevi MARUSIK et LOGUNOV, 1990

Material examined: Kazakhstan: 2♂, Aktyubinsk Area, Baichanin. Distr., North Ustyurt, pasture of Diyar Sovkhoz, .07.1989 (A.Z.; L.V.PAVLOVA); Dzhambul Area: 1♂, Moyinkum Distr., Karabugut 29.06.1989 (A.Z.) (BI); 2♂, Krasnogorsk Distr., 17 km NW Kenen Vill., Chu-Ili Mt. Range, 14-15.06.1990 (A.F., A.Z.) (JW). Tajikistan, 1♂, Beshkent River Valley, Chiluchor-Chashma, 20-22.06.1967 (PIS); 1♂, Bakhardan Distr., Zhdanova Kolkhoz, 15.06.1977 (ZMMU); 1♂, Yazgulem River Valley, 5.06.1970 (PIS); 1♂, 1♀, environs of Gandzhyno, Aruk-Tau Mt. Range, 13.07.1969 (T.DOMRACHOVA) (PIS).

Distribution: East Middle Asia: Kazakhstan, Kirghizia and Tajikistan.

Stiphropus strandi SPASSKY, 1938 Figs. 9-11

S. strandi: ONO, 1980: 61, f.1-3 (♀).

Material examined: Turkmenistan: 2j, SW Kopetdag, Dzhouli, 300 m, 10.05.1984 (S.ZABELIN) (ZMMU); ♂♂♀♀, Central Kopet-Dagh, Firyuza, 1970 and 1978 (G.K.) (ZMMU, 1♂ 1♀ JW). Tajikistan 5m, Aktau Mt Range, environs of Garavuti, Vakhsh River Valley, 27.04.1973 (A.K.) (BI). Specimens (2♀) from Afghanistan, in SMF, examined.

Measurements (mm).

Male/Female. Carapace: 1.71-1.96 long, 1.47-1.60 wide, clypeus 0.14-0.16/0.11, MOA-WA 0.23/0.26, MOA-WP 0.29-0.30/0.36, MOA-L 0.20/0.20, chelicerae 0.77-0.86/0.79, AME 0.07/0.07, ALE 0.12/0.14, PME 0.03/0.03, PLE 0.09/0.13, AME-AME 0.07-0.09/0.10, AME-ALE 0.29-0.33/0.33, PME-PME 0.24-0.27/0.30, PME-PLE 0.40-0.41/0.40.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.1-1.2 1.09	0.6-0.7 0.64	0.82 0.77	0.67 0.63	0.9-1.0 1.00
II	1.0-1.2 1.09	0.5-0.6 0.59	0.8-0.9 0.80	0.64 0.64	0.9-1.0 1.07
III	0.9-1.1 1.00	0.50 0.51	0.6-0.7 0.69	0.42 0.43	0.5-0.6 0.59
IV	0.8-1.1 1.14	0.5-0.6 0.53	0.7-0.8 0.76	0.49 0.54	0.5-0.6 0.60

Description.

Male. Carapace and chelicerae red-brownish. Sternum, maxillae and labium yellow. Abdomen yellow with dorsal pattern: grey rings and basally with grey dots, dorsally covered with scutum. Branchial opercula and spinnerets yellow. Legs yellow or 3 apical segments light red-brown. Legs lacking spines, but covered with numerous dentate scales. Male palp as in the Figs. 9-10.

Female. Colouration as in male, but abdomen grey with rows of yellow dots. Muscle dots strongly chitinized and red-brown. Scutum lacking. Epigyne as in Fig. 11.

Diagnosis: *S. strandi* can be easily identified by the shape of epigyne and male palp. Long lateral tibial apophysis and shape of embolus are quite different from those in other congeners.

Distribution: South Turkmenistan, South-West Tajikistan and Afghanistan.

Synema utotchkini MARUSIK et LOGUNOV, sp.n. Figs. 12-15

S. plorator [non O.P.-CAMBRIDGE, 1872]: SPASSKY, SHNITNIKOV, 1937: 283-284, figs. 5-6 (♀ and ♂).

S. plorator [non O.P.-CAMBRIDGE, 1872]: UTOTCHKIN, 1960a: 379, figs. 3, 4a,b, 5 a,b (♀ and ♂).

S. plorator [non O.P.-CAMBRIDGE, 1872]: MARUSIK, LOGUNOV, 1990: 50.

Material examined: Kazakhstan: Holotype: 1♂, East Kazakhstan Area, Zaisan Distr., Sarybulak River, 7.06.1990 (K.E.) (ZMMU). Paratypes: 1♀, Semipalatinsk Area, Abaisk Distr., 30 km S of Sarzhak, (V.TISHCHENKO) (BI); 1♀, Chimkent Distr., Suzak Distr., 20 km E of Suzak, 26.06.1989 (A.Z.) (BI); 1♀, Dzhambul Area, Moyinkum Distr., Karabuget Vill., 29.06.1989 (A.Z.) (BI). Alma-Ata Area: 1♀, Chilik Distr., 19th km Chilik-Chundzha Road, 29.05.1988 (M.ZARKO) (ZMMU); 3♀, Kurty Distr., Taukum Sands (Desert), Aidarly Vill., 20.06.1986 (V.G.LINSKI) (JW). Kirghizia: 1♀, Ferganski Mt. Range, Ak-Terek, 10-16.06.1984 (S.Z.) (BI); 2♀, south slope of Talasski Mt. Range, Itagar; 2.06.1987 (S.Z.) (BI).

Derivatio nominis: The new species is named in honour of the well known Soviet arachnologist, Alexander S. UTOTCHKIN, who has revised many groups of thomisid spiders from the USSR.

Measurements (mm).

Male/Female. Carapace: 2.30/2.10-2.63 long, 2.18/2.15-2.60 wide, clypeus 0.23/0.23-0.26, MOA-WA 0.48/0.49-0.54, MOA-WP 0.65/0.64-0.74, MOA-L 0.43/0.46-0.54, chelicerae 0.73/0.89-0.93, AME 0.09/0.09, ALE 0.13/0.13-0.15, PME 0.07/0.07-0.09, PLE 0.13/0.09-0.11, AME-AME 0.33/0.33-0.36, AME-ALE 0.28/0.30-0.34, PME-PME 0.50/0.51-0.56, PME-PLE 0.38/0.40-0.46.

Leg Femur Patella Tibia Metatarsus Tarsus

I	2.2/1.5-2.3	1.0/0.7-1.2	1.6/1.1-1.8	1.6/1.1-1.6	1.1/0.9-1.0
II	2.3/1.7-2.5	1.0/0.8-1.1	1.7/1.1-1.8	1.6/1.1-1.6	1.1/0.9-1.1
III	1.7/1.6-1.8	0.8/0.7-0.8	1.0/1.0-1.2	0.9/0.9-1.1	0.8/0.7-0.9
IV	1.6/1.8-1.9	0.6/0.7-0.9	1.1/1.1-1.3	0.9/1.0-1.1	0.8/0.8

Description:

Male. Carapace dark red-brown, with yellowish area around the eyes. Abdomen dorsally with yellow transverse bands (fig. 14).

Branchial opercula red. Legs dark red-brown, tarsi and metatarsi reddish, basal parts of all segments yellowish. Leg I spination: Male: femur d. 1-1-1-1, p. 1-2-0-0 or 1-2-1-1, tibia p. & r. 1-1-1, v. 2-2-2ap., metatarsus p. & r. 1-1-2ap., v. 1-2-2. Palp as in Figs. 12-13, with two-pointed lateral tibial apophysis and wide tip of embolus.

Female. Colouration as in male, abdominal pattern yellow or orange or absent. Leg I spination: femur d. 1-1-1, p. 1-2-1-1, tibia v. 2-2-2ap., metatarsus p. & r. 0-1-1ap., v. 0-2-2-2ap. Epigyne as in Fig. 15.

Diagnosis. *S. utotchkini* sp.n. is closely related to *S. ornatum* THORELL (sensu UTOTCHKIN, 1960a) and can be easily distinguished from the latter by the shape of the embolic tip and shape of the lateral tibial apophysis which has two tips (Fig. 13). *S. utotchkini* sp.n. was confused with *S. plorator* by SPASSKY & SHNITNIKOV (1937) and latter by UTOTCHKIN, 1960a and other authors owing to the similar shape of lateral tibial apophysis. Males of the new species can be separated from those of *S. plorator* in having a wide tip of embolus and greater body and palps size and females by the shape of receptacula and ducts (figs. 15 & 16) and also by larger size of epigyne and carapace.

Distribution: Kirghizia and East Kazakhstan.

Synema plorator O.P.-CAMBRIDGE, 1872 Fig. 16

S. plorator: LEVY, 1975: 159-161, figs. 8-11 (♀ and ♂).

S. richteri UTOTCHKIN, 1960: UTOTCHKIN, 1960b: 1022-1023, figs. 3 (1-5) (♀ and ♂), probably junior synonym of *S. plorator* (LEVY, 1975).

Material examined: Turkmenistan, 1♀, SW Kopetdagh, Damdam, 800 m, 8.07.1984 (V.F.) (ZMMU).

Distribution: Israel (LEVY, 1975), Armenia ? ((LEVY, 1975) mentioned that *S. richteri*, UTOTCHKIN, 1960 described from Armenia, is probably *S. plorator*), and South-West Turkmenistan.

Thomisus onustus WALCKENAER, 1805 Figs. 17-18

Material examined: Kazakhstan: 1♂, 3♀, Aktyubinsk Area, Baichanin Distr., North Ustyurt, pasture of Diyar Sovkhoz, 07.1989 (A.Z., L.V.PAVLOVA) (IZA); Pavlodar Area: 1♀, 25 km N Pavlodar, 12.07.1989 ((O.L.) (ZMMU)); 4♀, Maisky Distr., Kirovski Sovkhoz, Irtysh River Valley, 20.08.1989 (O.L.) (ZMMU); 1♂, 1♀, Environs of Pavlodar, 12.08.1989 (O.L.) (1♀ BI; 1♂ JW); 4♂, 20 km E of Pavlodar, 1.07.1990 (O.L.) (BI); 1♀, Lebyazh'ye Distr., 3km NW of Shoktal Vill., 5.07.1990 (O.L.) (JW); 1♂, 3♀, Yermak Distr., 8 km SE Kyzylyzhar Vill., 14.07.1990 (O.L.) (BI). 1♀, Semipalatinsk Area, Abaisk Distr., 30 km S of Sarzhak, (V.TISHCHENKO) (BI); 1♂, East

Kazakhstan Area, Saur Mt. Range, Kenderlyk River Basin, Akkolka River Valley, 06.1990 (K.E.) (IBPN); Chimkent Area: 1♂, Ary's Town, 1.05.1988 (D.V.LOGUNOV) (BI); 1♀, Suzak Distr., 20 km E of Suzak, 26.06.1989 (A.Z.) (ZMMU); 1♀, Tulykubas Distr., Aksu-Dzhabagly Reserve, 10.07.1989 (ABDIBEKOV) (JW). Dzhambul Area: 2♀, Krasnogorsk Distr., 17 km NW Kenen Vill., Chu-Ili Mt. Range, 14-15.06.1990 (A.F., A.Z.) (JW); 1♂, Krasnogorsk Distr., 37km NE of Georgievka, environs of Kurday Pass, 06.1990 (A.F., A.Z.) (JW); 1♀, Dzhambul Area, Moyinkum Distr., 17 km E Khantau Vill., Khantau Mt. foothills of Sunkar Mt., 12.06.1990 (A.F., A.Z.) (BI). 1♀, Alma-Ata Area, environs of Aidarly Vill., 07.1989 (A.Z., L.V.PAVLOVA) (IZA). Uzbekistan, 1♀, 65 km NE of Tashkent, Khodzhikent, 24.05.1988 (KURBATOV) (BI). Kirghizia: 1♂, Yarodar, 10.06.1979 (S.Z.) (ZMMU). Turkmenistan: 1♂, W Kopetdagh, Aidere, Miradzhy, 15.08.1983 (A.ZVANTSOV) (ZMMU); 2♂, SW Kopetdagh, foothills of Damdam Mt. Range, 17.05.1982 (B.P.ZAKHAROV) (BI). Tajikistan: 2♀, Shugnanski Mt. Range, environs of Khorog Botanical Garden, Sangoudara, 2400 m, 7.06.1970 (M.Z.) (PIS); 1♀, Environs of Khorog, botanical garden, 15.06.1970 (PIS); 1♀, Petra I Mt. Range, Obi-Khingou, 8 km from Sabzikharv, 7.1968 (V.C.) (PIS); 1♂, 1♀, 15 km from Muminabad, Khozratisho, 12.06.1966 (PIS); 2♂, 3♀, Khozratisho Mt. Range, Surkhak River Valley, 15-16.06.1966 (BI); 3♂, 3♀, Ramit, 1-7.07.1967 (PIS); 1♀, Alaiski Mt. Range, 108th km of the Osh-Khorog Road, 24.06.1965 (V.C.) (PIS); 1♀, Beshkent Area, Chiluchor-Chashma, 26-29.06.1967 (PIS), 1♂, Pyandzh River Valley, Obi-Rangou Canyon between Nul'vand and Khostou Kishlaks, 28.05.1970 (E.A.) (PIS); 1♂, Pyandz River Valley, .06.1970 (E.A.) (PIS); 1♂, Vanch, Say from Chikhokh Kishlak, 3.06.1970 (PIS); 1♂, Kashbadan Sands, 27.05.1969 (V.C.) (PIS); 1♀, 1♂, Viskharv Canyon, near Ubachy Kishlak, 3000 m, 29.05.1970 (E.A.) (PIS); 1♂, Barzhandg River Valley, environs of Sinandzh Kishlak, 2200-2600 m, 7.06.1970 (E.A.) (PIS); 2♀, Yavan Vill., 22.05.1973 (A.K.) (BI); 2♂, same locality, 21.09.1971 (UMAROV) (1♂ BI; 1♂ ZMMU); 1♀, Ghissar Mt. Range, Shurkhak Kishlak, 23.05.1974 (K.N.) (BI).

Distribution: Transpalearctic (?) (earlier was recorded from Europe, Middle Asia, and from Korean Peninsula (KIM, 1991).

Thomisus zyuzini MARUSIK et LOGUNOV, 1990

Thomisus onustus [non WALCKENAER]: DIPPENAAAR-SCHOEMAN, 1989, 24, figs. 3a-b (♂ and ♀).

Material examined: Uzbekistan, 1♀, Dal'verzin, 29.06.1980 (A.B. NENILIN) (ZMMU). Turkmenistan: 1♂, 4♀, SE Karakum Desert, Repe-tek Reserve, 05.1982 (KRIVOKHATSKI) (1♂ JW; 2♀ ZMMU; 2♀ BI); 1♀, same locality, 29.04.1976 (A.K.) (BI); 2♂, Transcasplia, Ashabad, 24.04.1902 (BI); 2♂, Chardzhou Area, Farab Distr., Nargyz Isl., 17.09.1982 (S.YU.KUZNETSOV, S.K.ALEKSEYEV) (ZMMU); 1♂, W Kopet-dagh, Aidere, Miradzhy, 15.08.1983 (A.ZVANTSOV) (ZMMU). Tajikistan: 2♀, Tigrovaya Balka Reserve, sands, 27.07.1968 (T.DOMRACHEVA) (PIS); 2♀, same locality, Vakhsh River Valley, 20.06.1973 (A.K.) (BI); 1♀, Yavan Distr., Sovkhoz, 2.10.1971 (UMAROV) (BI);

1♀, Yangiabad, 12.06.1974 (A.K.) (BI); 1♀, environs of Garavuti, 18.05.1978 (CHERNENKO) (JW); 3♀, same locality, 28.07.1974 (A.K.) (1♀ ZMMU; 1♀ BI; 1♀ JW); 1, Teshik-Tash, 29.08.1978 (A.K.) (BI).

Measurements (mm).

Male. Carapace: 1.1-1.3 long, 1.1-1.4 wide, clypeus 0.19-0.26, MOA-WA 0.23-0.29, MOA-WP 0.29-0.33, MOA-L 0.24-0.29, chelicerae 0.29-0.41, AME 0.05-0.06, ALE 0.05-0.06, PME 0.03-0.04, PLE 0.03-0.04, AME-AME 0.14-0.18, AME-ALE 0.13-0.17, PME-PME 0.23-0.29, PME-PLE 0.17-0.23.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.3-1.7	0.4-0.6	1.0-1.3	0.9-1.3	0.5-0.8
II	1.2-1.7	0.5-0.6	1.0-1.3	0.9-1.2	0.5-0.6
III	0.6-0.8	0.3-0.4	0.3-0.5	0.3-0.5	0.3-0.4
IV	0.6-0.9	0.2-0.3	0.4-0.6	0.4-0.6	0.3-0.4

Description. Carapace light-brown, ocular area yellow, clypeus light brown, margins of carapace with small denticles. Abdomen very light. Carapace and abdomen covered with erect, chitinized denticles. Palps (Figs. 19-20) red-brownish. Legs I and II light red-brown with yellow tarsi, legs III and IV yellow, leg spines absent.

Diagnosis. Males of T.zyuzini can be distinguished easily from the closely related species T.onustus by the shape of the palp. T.zyuzini has shorter ventral and lateral tibial apophyses, different shape of lateral apophysis, and different position and arrangement of tibial denticles (Figs. 18 & 20). Males of the two species can be distinguished by the leg and carapace coloration as well:

T.onustus T.zyuzini

femora and patellae I and II	yellow	red brown
carapace	yellow	red brown

Distribution: South and West Middle Asia and Saudi Arabia (DIPPENAAAR-SCHOEMAN, 1989 as T.onustus).

Tmarus horvathi KULCZYNSKI, 1895

T.hanrasanensis: ONO, 1977: 80-81, figs. 13-14, 18, 21 (♀). T.hanrasanensis: ONO, 1986: 169-170, figs. 2-4 (♂).

Material examined: Turkmenistan, 1♀, SW Kopetdagh, El'dere, 10.06.1985 (T.L.) (BI).

Comments: T.hanrasanensis was synonymized with T.horvathi by LOGUNOV & MARUSIK, 1990.

Distribution: East Mediterranean - Far East disjunctive range:

Xysticus abramovi MARUSIK et LOGUNOV, sp. n. Figs. 21-23

Material examined: Holotype ♂, Tajikistan Pyandzh Distr., 7 km S of Zebon, 14.09.1989 (A.V.ABRAMOV) (BI).

Measurements (mm).

Carapace: 2.05 long, 1.93 wide, clypeus 0.17, MOA-WA 0.43, MOA-WP 0.49, MOA-L 0.39, chelicerae 0.46, AME 0.08, ALE 0.13, PME 0.06, PLE 0.11, AME-AME 0.31, AME-ALE 0.16, PME-PME 0.36, PME-PLE 0.34.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.70	0.75	1.13	1.18	0.69
II	1.73	0.75	1.15	1.15	0.75
III	1.23	0.55	0.70	0.78	0.45
IV	1.20	0.60	0.83	0.88	0.50

Description. Carapace dark red-brown with V-shaped yellow median band and short stripes on sides. Ocular area yellow. Sternum light-brown with yellow margins. Maxillae and labium red-brown. Chelicerae dark red-brown with yellowish spot prolaterally. Abdomen yellow-brown with 3 pairs of brown spots and white marginal band apically and laterally, ventrally cream-coloured with numerous short white stripes. Branchial opercula greyish. Legs I and II: femora, patellae and tibii from dark red-brown to black, tarsi and metatarsi yellow, junctions of segments yellow. Legs III and IV red-brown with numerous white spots. Leg I spination: femur d. 0-1-1, p. 0-1-1-1-0, tibia p. and r. 1-1-1, v. 2-2-1-1-lap., metatarsus p. 0-1-lap., r. lap., v. 2-2-2-2ap. Palp as in Figs. 21-23, with two tibial apophyses and without distinct tegular ridge, base of embolus elevated.

Female unknown.

Diagnosis: Male *X.abramovi* sp.n. is similar to that of *X.nini* THORELL (sensu UTOTCHKIN, 1968) from which it can be easily distinguished by the shape of apical part of tegulum and embolus. The new species is also similar to *X.simplicipalpatus* ONO, 1978 (Nepal). Two related species can be separated by the more apical position of the tegular ridge in *X.simplicipalpatus* and characteristic elevation of the embolic base in *X.abramovi* sp.n.

Distribution: Type locality only.

Xysticus ovadan MARUSIK et LOGUNOV, sp. n. Figs. 24-25

Xysticus caperatus [non SIMON, 1875]: OVTSHEREKHO, FET, 1980: 444.

Material examined: Holotype ♂, Turkmenistan, Badkhyz, Kepela, 14.05.1977 (V.F.) (ZMMU); paratype ♂, environs of Bakharden, 18.07.1979 (ZMMU).

Derivatio nominis: The name for this species is derived from Turkmen word "ovadan", meaning "nice".

Measurements (mm).

Carapace: 2.75 long, 2.55 wide, clypeus 0.36, MOA-WA 0.56, MOA-WP 0.63, MOA-L 0.53, chelicerae 0.90, AME 0.11, ALE 0.19, PME 0.10, PLE 0.14, AME-AME 0.39, AME-ALE 0.23, PME-PME 0.43, PME-PLE 0.39.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.55	1.10	1.90	1.80	0.95
II	2.30	1.10	1.75	1.65	1.00
III	1.75	0.90	1.20	1.05	0.70
IV	1.80	0.80	1.25	1.15	0.80

Description. Carapace reddish to redbrown, eyes with yellow rings. Whole carapace covered with yellow and black spots. Sternum yellow with red-brown spot. Abdomen variegated, grey with numerous white and black spots. Muscle dots reddish and highly sclerotized. Abdomen covered with dense strong macrosetae. Branchial opercula yellow-grey. Legs dark red-brown with white and yellow dots. Leg I spination: femur d. 0-0-1-1-1, p. 1-1-2-1, tibia v. 1-1-2-2ap., metatarsus p. lap., r. 1-lap., v. 1-2-1-1-2ap. Palp as in Figs. 24-25, with, distinct tegular apophysis and bifid tibial apophysis.

Female unknown.

Diagnosis. The male of *X.ovadan* sp.n. resembles that of *X.caperatus* SIMON, 1875 (see figs. 18-19 in LEVY, 1976) by the shape and position of ventral tibial apophysis and the shape of tegular apophysis, but it can be distinguished by the smaller size of tegular apophysis, thinner lateral tibial apophysis, and smaller lateral division of ventral tibial apophysis.

Distribution: South Turkmenistan only.

Xysticus pseudoluctuosus MARUSIK et LOGUNOV, sp. n. Figs. 26-27

Material examined: Holotype ♂, Tajikistan, Karateginski Mt.Range, Sarby-Komarou Rivers, environs of Shinglig Kishlak, (A.K.) (BI).

Derivatio nominis: The name of this species is derived from the name of the closely related species *X.luctuosus*, and Latin word "pseudo" meaning false.

Measurements (mm).

Carapace: 2.13 long, 2.35 wide, clypeus 0.20, MOA-WA 0.46, MOA-WP 0.46, MOA-L 0.40, chelicerae 0.57, AME 0.06, ALE 0.09, PME 0.06,

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.40	1.10	1.75	1.63	1.00
II	2.30	1.10	1.75	1.63	0.98
III	1.63	0.75	0.93	0.85	0.68
IV	1.48	0.70	1.05	0.93	0.73

Description: Carapace orange with X-shaped white spot, ocular area white. Sternum yellowish-white. Maxillae and labium pale-orange, chelicerae orange. Abdomen white with cream-coloured pattern. Carapace and abdomen covered with parse erect setae. Branchial opercula cream-coloured, spinnerets orange. All legs orange with indistinct whitish spots. Leg I spination: femur d. 0-0-1-1-1, p. 1-1-2-2-2, patella v. 1, tibia p. and r. 1-1-1, v. 2-2-2-2ap., metatarsus p. and r. lap., v. 0-2-2. Palp as in figs. 26-27, with bifid ventral tibial apophysis, lateral tibial apophysis curved apically and small tegular ridge. Female unknown.

Diagnosis: The new species is closely related to *X. luctuosus* and to *X. xerodermus* STRAND, 1913 (see figs. 49-50 in LEVY, 1976). *X. pseudoluctuosus* sp.n. can be distinguished from both species by the shape of lateral tibial apophysis, position and shape of tegular ridge, position of tutaculum and shape of embolus.

Distribution: Type locality only. Ranges of the closely related species *X. pseudoluctuosus* sp.n. and *X. luctuosus* are not overlapping.

Xysticus turkmenicus MARUSIK et LOGUNOV, sp. n. Figs. 30-33

X. albomaculatus [non KELCZYNSKI, 1891]: UTOTCHKIN, 1968: 18 & 22, figs. 102-103 (♂).

Material examined: Holotype ♂, and paratypes 2♂ and 1♀, Turkmenistan, South Ust'yurt Plateau, Kaplankyr Reserve, 9.10.1985 (L.MITROSHINA) (ZMMU). Paratypes: Kazakhstan: Chimkent Area: 1♀, Tulukbas Distr., Karatau Mt. Range, canyon near Tauken Vill., 23.04.1989 (C.T., BI); 1♀, 63 km N of Turkestan Town, Karatau Mt. Range, 30 km from Bosbutak Vill., 13.06.1989 (C.T., A.Z., BI); 1♀, Alga-bas Distr., Karatau Mt. range, environs of Tauken Vill., 23.04.1989 (IZA). Kirghizia: 1♀, Turkestan Mt. Range, Loylyak Distr., 40 km S of Isfara, Madygen Vill., 1300 m, (Yu.A.POPOV, A.G.PONO-MARENKO) (JW); 1♀, Chilisay Canyon, 30.06.1985 (A.Z.) (BI). Turkmenistan: 1♀, same locality as holotype, 28.09.1981 (ZMMU); 1♂, Sarykamysh Lake, 7.10.1985 (BI), 1♂, same locality, 3.10.1982 (O. SOYUNOV) (JW); 1♂, NW Turkmenistan, Kafigshem Mt. Range, 55x00'E, 41x00'N, 5.11.1982 (V.F.) (ZMMU). Tajikistan: 1♀, Petra I Mt. Range, Dorosh-Nazarok, near Tajikabad Vill., 23.06.1974 (SHCHYTOKIN) (JW).

Derivatio nominis: The specific name refers to the distribution

the species.

Measurements (mm).

Male/Female. Carapace: 2.1-2.3/2.7-3.0 long, 2.0-2.1/2.8-2.9 wide, clypeus 0.19-0.21/0.26-0.30, MOA-WA 0.36-0.41/0.57-0.64, MOA-WP 0.39-0.41/0.56-0.66, MOA-L 0.41-0.44/0.52-0.60, chelicerae 0.61-0.64/0.86-0.97, AME 0.07-0.08/0.09, ALE 0.11-0.13/0.13-0.15, PME 0.06-0.07/0.08, PLE 0.08-0.10/0.10-0.11, AME-AME 0.26-0.29/0.43-0.47, AME-ALE 0.15/0.21-0.26, PME-PME 0.26-0.27/0.28-0.49, PME-PLE 0.31-0.34/0.47-0.51.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.2-2.3 2.6-2.8	0.9-1.0 1.3-1.5	1.5-1.7 1.9-2.0	1.6-1.8 1.8-1.9	0.9-1.0 0.9-1.1
II	2.2-2.3 2.7-2.8	0.93 1.3-1.5	1.58 1.9-2.1	1.4-1.7 1.7-1.9	0.8-1.0 0.9-1.0
III	1.4-1.5 1.8-1.9	0.59 0.9-1.0	0.9-1.0 1.2-1.3	0.86 1.0-1.1	0.6-0.7 0.7-0.8
IV	1.5-1.6 1.9-2.1	0.60 0.8-0.9	1.02 1.33	1.05 1.3-1.4	0.6-0.8 0.77

Description. Male. Carapace sandy-coloured with red-brown and cream-coloured spots, and 2 deep red-brown triangle spots basally. Sternum and chelicerae cream-coloured with red-brown dots. Abdomen sandy-coloured dorsally with cream-colored spots and bands and 2 pairs of distinct large red-brown spots. Legs variegated sandy-coloured with numerous cream-coloured and red-brown spots. Leg I spination: femur d. 0-1-1-1, p. 0-1-1-1-0, tibia p. and r. 1-1-1, v. 2-2-2-2ap., metatarsus p. 1-0-1-lap., r. 1-1, v. 2-2-2-2ap. Palp as in Figs. 30-31, with bifid lateral tibial apophysis, distinct tegular ridge, and thick embolic base. Female. General coloration lighter than in male. Carapace with wide median cream-coloured band. Sternum cream-coloured. Abdomen sandy coloured with cream-coloured spots. Metatarsi and tarsi I and II yellow-redish apically. Leg I spination: femur p. 0-1-1-1-0, tibia v. 2-2-2-2ap., metatarsus p. 1-1-lap., r. 1-1, v. 2-2-2-2-2ap. Epigyne as in figs. 32-33, with two semicircular fovea on the elevation.

Diagnosis. *X. turkmenicus* sp.n. is related to *X. kuzgi* and *X. bakan-* as (each has a serrated embolus), but males can be easily distinguished by bifid lateral tibial apophysis, position and shape of tegular ridge, and by the shape of embolic base. From similar european species *X. albomaculatus* males of new one can be distinguished by the smaller spur on the lateral tibial apophysis, larger embolus and different position of tegular ridge. Females of new species is somewhat similar to that of *X. soderbomi* SCHENKEL, 1936 (China) (see figs. 65-67), but two species can be separated by the shape of fovea and seminal ducts.

Distribution: South Middle Asia.

X.sabulosus [non HAHN, 1831]: UTOTCHKIN, 1968: 19 & 21, figs.

110-112 (♀ and ♂).

X.sabulosus [non HAHN, 1831]: MARUSIK, LOGUNOV, 1990: 49.

Material examined: Holotype ♂, and paratypes 3♂, 5♀, Kazakhstan, Dzhambul Area, Krasnogorsk Distr., 37 km NE of Georgievka, environs of Kurday Pass, 13.06. 1990 (A.F., A.Z.) (BI). Paratypes: Kazakhstan: 2♀, Pavlodar Area, Yermakoskoye Distr., Environs of Aksu, 26.06.1990 (O.L.) (JW); 9♂, 12♀, Dzhambul Area, Krasnogorsk Distr., 19 km NW of Kekev Vill., Chu-Ili Mt. Range, 15.06.1990 (A.F., A.Z.) (ZMMU). Chimkent Area: 2♀, Aksu-Djabagly, 10.07.1989 (ABDIBEKOV) (BI); 3♂, 2♀, Suzak Distr., 25 km W of Chulak-Kurgan Vill., 10 km from Abay Vill., Karatau Mt. Range, 25.06.1989 (C.T., A.Z.) (JW); 1♀, 63 km N of Turkestan Town, Karatau Mt. Range (30 km up from Bosbutak Vill.), 13.06.1989 (C.T., A.Z.) (BI). 1♂, Kyzyl-Orda Area, Yanykurgan Distr., 35 km NNE of Yanykurgan Town, Karatau Mt. Range, 15.06.1989 (C.T., A.Z.) (BI). Kirghizia, 1♂, Osh Area, Ak-Bureya Canyon, 1500 m, 25.06.1985 (A.Z.) (BI); 4♂, Chilikay Canyon, 2500m, 30.06.1985 (A.Z.) (ZMMU). Turkmenistan, 1♀, West Kopet-Dagh, Kara-Kala, 4.07.1974 (V.GORBATOVSKI) (ZMMU). Tajikistan: 7♂, 6♀, Turkestan Mt. Range, Kusavli-Say, 06.1975 (Y.L.) (JW); 1♂, 2♀, Petra I Mt. Range, Dorosh-Nazarok, environs of Tadzhikabad, 23.06.1974 (A.K.) (ZMMU); 22♂6♀, Shakhristan Distr., Turkestan Distr., 20.06.-1.07.1974 (Y.L.) (BI); 2♂, Komsomolabad Distr., Lyulya-Kharvi Valley, 12.07.1978 (V.I.OVTSHARENKO) (ZMMU); 1♂, same locality 1800 m, 23.08.1978 (V.I.OVTSHARENKO) (BI).

Other material examined:

8♀, Turkestan Mt. Range, Kusavli-Say, 2350-2450 m, 28.06.1970 (NAZIMKHANOV) (PIS); 1♀, environs of Khorog, Botanical Garden, 2200 m, 19.08.1970 (L.ZHARKOVA) (PIS); 1♂, 2♀, Vesdara (River ?), tributary of Shakhdry, 9.07.1970 (PIS).

Derivatio nominis: This species is named after our late teacher, prominent entomologist and arachnologist, passed away at an age of 50, Prof. Viktor P. TYSHCHENKO.

Measurements (mm):

Male/Female. Carapace: 1.98-3.07/2.40-2.90 long, 1.85-2.78/2.18-2.78 wide, clypeus 0.11-0.29/0.27-0.29, MOA-WA 0.45-0.61/0.50-1.10, MOA-WP 0.49-0.66/0.71-1.23, MOA-L 0.43-0.57/0.49-1.03, chelicerae 0.79-1.07/0.73-1.19, AME 0.08-0.10/0.06-0.15, ALE 0.13-0.16/0.10-0.17, PME 0.07-0.09/0.07-0.09, PLE 0.10-0.14/0.09-0.12, AME-AME 0.30-0.44/0.38-0.80, AME-ALE 0.18-0.26/0.27-0.51, PME-PME 0.34-0.50/0.44-0.53, PME-PLE 0.37-4.7/0.41-0.51.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.1-2.8	0.8-1.2	1.5-2.1	1.6-2.2	1.0-1.2
	2.1-2.4	1.1-1.3	1.5-1.9	1.4-1.8	0.8-0.9
II	2.1-2.8	0.8-1.1	1.5-2.0	1.6-2.1	0.8-1.2
	2.1-2.3	1.0-1.3	1.4-1.8	1.4-1.7	0.8-0.9
III	1.5-2.1	0.6-0.9	0.9-1.4	1.1-1.5	0.6-0.8

	1.5-1.7	0.8-0.9	1.0-1.3	0.9-1.1	0.8
IV	1.5-2.2	0.5-0.8	1.1-1.5	1.2-1.8	0.7-1.0
	1.8-1.9	0.7-0.9	1.1-1.4	1.2-1.5	0.7-0.9

Description. Male. Colouration variable. Carapace from orange to dark red-brown, always with Y-shape yellow band. Ocular area yellow. Sternum yellow or yellow with red-brown hue. Maxillae, labium and chelicerae yellow or red-brown. Abdomen dorsally white with 2 red-brown wide bands laterally, ventrally white or red-brownish. Branchial opercula yellow or yellow with red-brown hue. Legs I and II: femora and patellae orange or bark red-brown, tibiae, metatarsi and tarsi yellow. Legs III and IV yellow with whitish spots and stripes or with prolaterally red-brown, tarsi and metatarsi III and IV always yellow. Leg I spination: femur d. 0-0-1-1-1-1, p. 1-1-3-1-2-2- or 1-1-1-2-2-1-2-1, tibia p. 1-1-1, r. 1-1-lap., v. 2-2-2-2ap., metatarsus p. and r. 1-1-lap., v. 2-2-2-2ap. Palp as in figs. 34-36, with embolus somewhat curved, wide in apical view and with a small tegular ridge. Female. Newly molted females cream-coloured with red to brownish sides. Legs light-coloured, femora sometimes with red-brown spots apically. Leg I spination: femur p. 0-1-1-1-0, tibia v. 2-2-2-2ap. or 1-2-1-2-2ap., metatarsus p. 1-1-1-lap., r. 1-1-lap., v. 2-2-2-2ap. Epigyne as in figs. 37-39, without distinct fovea, shape of fovea somewhat variable.

Diagnosis. The new species is closely related to *X.secedens* (L. KOCH, 1876) (endemic of Alps ? THALER, 1981) (see figs. 50-51, 53 & 58 (THALER, 1981), from which can be distinguished by the shape of embolus and tegular ridge, and also by the shape of receptacula.

Distribution: Widespread in Middle Asia. All records of *X.sabulosus* from Middle Asia belong to *X.tyshchenkoi* sp.n.

Xysticus acerbus THORELL, 1872.

Material examined: Turkmenistan, SW Kopetdag: 18♂, 1♀, Syunt Mt., 1200 m, 2-15.04.1985 (T.L.) (11♂, 1♀ ZMMU; 4m BI; 3m JW); 1♀, Kizil-Arvat, 800 m, 20.06.1985 (V.F.) (ZMMU).

Distribution: Europe and South-West Turkmenistan.

Xysticus audax (SCHRANK, 1803)

Material examined: Kazakhstan: 1♂, East Kazakhstan Area, Saur Mt. Range, Saikan Pass, 1880 m, 7.06.1990 (K.E.) (IBPN). Kirghizia: 1♀, Terskey-Ala-Tau, Chon-Kysyl-Su River basin, 2800 m, 26.06.1966 (P.V.) (PIS). Tajikistan, 1♀, North slope of Alaiski Mt. Range, left tributary of Sokh River, Sary-Chilim, 2300 m, 25.06.1970 (M.Z.) (PIS).

Distribution: Transpalaearctic.

Xysticus baltistanus (CAPORIACCO, 1935)

Material examined: Kazakhstan, 1♀, East-Kazakhstan, Saur Mt. Range, 20 km S of Zaisan Town, E of Churgutsu, 21.06.1989 (I.KABAK) (BI). Tajikistan: 2♂, 2♀, Shugnanski Mt. Range, environs of Khorog Botanical Garden, Sangoudara, 2400-3800 m, 1970 (M.Z.) (PIS); 1♀, Turkestan Mt. Range, Kusavli-Say, Kusavli River, 3000-3200 m, 29.06.1970 (PIS); 1♀, Badakhshan, 1970 (E.A.) (PIS); 1♀, North Slope of Ghissar Mt. Range., 3000m, 18.08.1969 (PIS); 3♀, same area, Kavnak River, 32000 m, 17.08.1969 (PIS).

Distribution: North India, China, Mongolia, Middle Asia and NE Siberia. From Karakoram Mt. Range at the south, north-east to Magadan Area (Upper Kolyma, MARUSIK, 1988).

Xysticus bifasciatus (C.L.KOCH, 1837)

Material examined: Kazakhstan, 1♂, East Kazakhstan Area, Saur Mt. Range, Saikan Pass, 1880 m, 7.06.1990 (K.E.) (IBPN). Kirghizia, 1♀, Terskey-Ala-Tau Mt. Range, Chon-Kyzyl-Su River basin, 2800 m, 26.06.1965 (P.V.) (PIS).

Distribution: European - Middle Siberian range.

Xysticus concinnus KRONEBERG, 1875

Material examined: Kazakhstan, ♀f, Chimkent Area, environs of Arys', 7.05.1988 (D.V.LOGUNOV) (JW). Uzbekistan, 1♂, Zeravshan Mt. Range, Aman-Kutan Pass, 29.05.1965 (A.D.) (PIS). Tajikistan: 1♀, Vanch River Valley, canyon near Tekhvar Kishlak, 2.06.1970 (E.A.) (PIS); 1♂, Vanch Mt. Range, near Chikhokh Kishlak, 2200-2600 m, 2.06.1970 (E.A.) (PIS); 3♂, 2♀, Khozratisho Mt. Range, 15-20 from Muminabad to Chil'dukhtaron, 25-27.05.1966 (PIS); 5♂, 10♀, Kondara, 8.06.1967 (PIS; 5f BI); 1♂, 1♀, Varzob, Medvezhya Balka Canyon, Takob, 16-17.08.1967 (PIS); 2♂, Varzob, 3.05.1967 (V.KHRISTOV) (PIS); 1♀, Baisun Mt. Range, Sairab Kishlak, 7.06.1964 (PIS); 1♂, Upper flow of Karatag River, Paironskoye Lake, 2.05.1967 (PIS); 1♂, Zeravshan Mt. Range, Kshtut River, 23.05.1967 (I.N.LOPATIN, V.C.) (PIS); 1♀, Petra I Mt. Range, Obi-Khingou, 8 km from Sabzikharv, 04.1968 (V.C.) (PIS); 2♂, Environs of Dushanbe, 11.05.1967 (E.MARTYNOVA) (PIS); 1♂, 1♀, Gandzhino, 12.05.1967 (PIS); 1♀, Aktau Mt. Range, Gandzhino Vill., 5.05.1973 (K.N.) (BI); 3♂, 3♀, Aktau Mt. Range, environs of Garavuti, 1973 (A.K.) (1♂ ZMMU; 3♂, 2♀ BI); 1♀, environs of Gandzhino, Aruk-Tau Mt. Range, Barsovoye Canyon, 8.06.1069 (T.DOMRACHOVA) (PIS); 1♂, Viskharv Canyon, near Ubaga Kishlak, 3000 m, 31.05.1970 (E.A.) (PIS); 1♂, Kelif, 21.06.1976 (A.K.) (BI); 1♂, Karatau Mt. Range,

Ak-Kutal' Pass, 23.04.1974 (K.N.) (JW); 1♂, 1♀, Turkestan Mt. Range, Kusavli-Say, 06.1975 (Y.L.) (JW); 1♀, Anzob, 16.07.1967 (Ye.SEREDINA) (ZMMU); 1♂, Shakhristan Distr., Turkestan Mt. Range, 20.06-01.07.1974 (Y.L.) (BI); 1♀, environs of Khorog, Shugnanski Mt. Range, Shakhdry River valley, 21.06.1970 (L.ZHARKOVA) (PIS); 1♂, 1♀, North slope of Alay Mt. Range, Sary-Chashma Canyon, upper flow of Sokh River, 24.06.1970 (L.ZHYLTSOVA) (PIS).

Distribution: East Middle Asia.

Xysticus cristatus (CLERCK, 1757)

Material examined: Kazakhstan: 2♀, Pavlodar Area, Yermak Distr., environs of Aksu, 26.06.1990 (O.L.) (ZMMU); 1♂, Pavlodar, 2.05.1990 (KONDRASHOV) (BI); 1♂, 3♀, 50 km S of Pavlodar, Irtysh River Valley, 20.06.1989 (O.L.) (JW); 2♂, 1♀, Chimkent Area, Arys'Town, 05.1988 (D.V.LOGUNOV) (BI); 1♂, East Kazakhstan Area, Saur Mt. Range, Kenderlyk River Bassin, Akkolka River Valley, .06.1990 (K.E.) (IBPN); 1♀, Alma-Ata, botanical garden, 5.04.1990 (O.L.) (JW); 2♂, same locality, 22.04.1981 (A.Z.) (IZA); 1♀, Alma-Ata Area, Syugaty Mt. Range, Yablonevaya Shchel', 22.04.1990 (IZA). Kirghizia: 3♀, Terskey-Ala-Tau Mt. Range, 2800 m, 7.08.1964 (P.V.) (PIS); 1♂, Yarodar, 10.06.1979 (S.Z.) (ZMMU). Tajikistan: 2♂, Vakhanski Mt. Range, 110th km from Ishkashim to Lyangar, Dershch Kishlak, 3500 m, 26.07.1970 (L.ZHARKOVA) (PIS); 3♀, Regar Distr., Chereshtepa Kishlak, .04.1971 (L.ZHARKOVA) (PIS); 2♀, Environs of Khorog, botanical garden, 2300 m, 1-3.06.1969 (E.A.) (PIS); 1♀, Kuraminski Mt. Range, Palgau Kishlak, 20-25.05.1969 (V.C.) (PIS); 1♀, Artuch Kishlak, near Kuli-Kalon Lake, 27.05.1967 (I.N.Lopatin, V.CHIKAT INOV) (PIS); 1♀, Vanch River Valley, 1.06.1967 (E.A.) (PIS); 1♂, Pyandzh River Valley, 06.1970 (E.A.) (PIS); 1♂, Viskharv Canyon, near Ubaga Kishlak, 3000 m, 1.06.1970 (E.A.) (PIS); 1♀, Kurgovat Kishlak, 1.06.1970 (E.A.) (PIS); 3♂, 1♀, Karatau Mt. Range, Ak-Kutal' Pass, 23.04.1974 (K.N.) (BI); 2♂, Karateginski Mt. Range, Sorbog-Komarou Rivers, Shinglig Kishlak, 22.04.1978 (BI); 1♂, 5♀, Shakhristan Distr., Turkestan Mt. Range, 20.06-21.06.1978 (BI); 1♂, 5♀, environs of Garavuti, 4-23.04.1974 (A.K.) (1♀ JW; 3♀ ZMMU; 2♀ BI); 1♂, same locality, 07.1975 (A.K.) (BI); 2♀, Garavuti, 8-16.04.1973 (Ye.SEREDINA) (BI); 1♀, N slope of Turkestan Mt. Range, Kusavli-Say, 06.1975 (Y.L.) (ZMMU); 2♂, 1♀, Alay Mt. Range, left tributary of Sokh River, Mazar near Ravuch Kishlak, 2200 m, 26.06.1970 (E.A.) (PIS).

Distribution: European - Middle-Asian - Middle-Siberian range.

Xysticus dzhungaricus TYSHCHENKO, 1965

X.dzhungaricus TYSHCHENKO, 1965: 700, figs. 6 (a and b), ♀ and ♂, from Dzhungar Alatau, Kazakhstan in ZIL according to author, but recently in Perm State University.

X.kiritschenkoi UTOTCHKIN, 1968: 24-25, figs. 2-6, ♀ and ♂, from

Middle Asia, in Perm State University. Syn.n.
X.kiritschenkoi: MARUSIK, LOGUNOV, 1990: 42-43, figs. 29-31 (♀ and ♂).

Material examined: Kazakhstan: 1♂, Pavlodar Area, Kyzyl-Tau Reserve, 15.08.1989 (O.L.) (BI); East Kazakhstan Area: 4♂, 1♀, Saur Mt. Range, enderlyk River Basin, Akkolka River Valley, 06.1990 (K.E.) (IBPN); 1♂, 1♀, aur Mt. Range, Kendirlik River Basin, Karraungur River Valley, 19.06.1990 (K.E.) (IBPN). Kirghizia, 1♂, Terskey-Ala-Tau Mt. Range, Chon-Kysyl-Su River assin, 2800 m, 26.06.1966 (P.V.) (PIS). Tajikistan: 1♀, Shugnanski Mt. Range, Coinfluence of Chunta and Shakhdary Rivers, Sangou Canyon, 18.05.1970 (Y.L.) (JW); 1♀, same area, upper flow of Kusavli-Say River, 3000-3200 ♂, 29.06.1970 (PIS); 1♀, Alay Mt.range, left tributary of Sokh River, Mazar near Ravuch Kishlak, 2200 m, 26.06.1970 (E.A.) (PIS).

Distribution: East Middle Asia.

Xysticus embriki KOLOSVARY, 1935 Figs. 40-41

Xysticus marmoratus [non THORELL, 1875 ?]: UTOTCHKIN, 1968, 19, figs. 113-114 (♂).

Material examined: Kazakhstan, 2♂, East-Kazakhstan Area, environs of Glubokoye Vill., 2-9.09.1990 (V.K.ZINCHENKO) (BI); 1♀, East Kazakhstan Area, environs of Zaisan Town, Djeminey Canyon, 2-4.06.1990 (K.E.) (IBPN). Turkmenistan, 1♂, SW Kopetdagh, 13.11.1981 (N.M.YERMAKOV) (ZMMU).

Measurements (mm).

Male. Carapace: 2.00-2.10 long, 1.85-1.98 wide, clypeus 0.14-0.20, MOA-WA 0.40-0.44, MOA-WP 0.44-0.47, MOA-L 0.39-0.43, chelicerae 0.53-0.77, AME 0.08, ALE 0.11, PME 0.06, PLE 0.09, AME-AME 0.29-0.31, AME-ALE 0.18-0.19, PME-PME 0.32-0.35, PME-PLE 0.31-0.34.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	2.00-2.15	0.90-0.93	1.35-1.50	1.43-1.58	0.80-0.83
II	2.05-2.13	0.88-0.90	1.38-1.48	1.38-1.53	0.78-0.83
III	1.28-1.40	0.60-0.65	0.75-0.90	0.75-0.88	0.53-0.63
IV	1.30-1.35	0.60-0.63	0.83-1.00	0.93-0.95	0.60-0.70

Description. Carapace: laterally with yellow stripes, medially with yellow wide band covered with red-brownish spots, ocular area with white transverse stripe. Sternum cream-coloured with red-brown dots. Maxillae, labium and chelicerae light-brown. Abdomen variegated, with white, grey, red-brownish and black spots, ventrally cream-coloured. Branchial opercula yellow. Legs variegated, cream-coloured with red-brown stripes and spots. Leg I spination: femur d. 0-0-1-1-1, p. 0-1-1-1-0, tibia p. & r. 1-1-1,

v. 2-2-2-2ap., metatarsus p. 1-1-lap., r. 1-1, v. 2-2-2-2ap. Palp as in figs. 40-41.

Diagnosis: X.embriki is related to X.minor and X.nepalhimalaicus from which can be easily distinguished by the shape of embolus. It is probably conspecific with X.marmoratus THORELL (male unknown).

Note: East Kazakhstan Area is north-easternmost point of distribution.

Xysticus inaequalis KULCZYNSKI, 1901 Figs. 42-48

Oxyptila inaequalis: SCHENKEL, 1963: 199-203, figs. 114a-f (♀ and ♂).

Material examined: Kazakhstan: 1♀, Chimkent Area, Suzak Distr., upper flow of Kokbulak River, Karatau Canyon, 22.04.1988 (C.T.) (IBPN); Alma-Ata Area: 1♀, Ili Distr., Kapchagay Town, 27.05.1988 (A.Z.) (IBPN); 1♀, Kurty Distr., Aidarly Vill., 28.05.1986 (V.G.LINSKI) (IBPN).

Distribution: From East Kazakhstan to East China.

Xysticus cf. inaequalis KULCZYNSKI, 1901 Figs. 49-51

Material examined: 1♀, Kazakhstan, Semipalatinsk Area, Kokpeky Distr., Kokpeky Vill., 7.08.1988 (A.Z.) (IBPN).

Xysticus kaznakovi UTOTSHKIN, 1968

Material examined: Turkmenistan: 2♂, Kurkulab, 20-27.05.1977 (G.K.) (JW); 3♂, Environs of Ashkhabad, Bezengi, 04.1980 (G.K.) (ZM MU). Tajikistan, 2♂, Nuratau Mt. Range, 14.05.1976 (A.K.) (BI).

Distribution: South Middle Asia, from West Turkmenistan on the west to Tajikistan on the east.

Xysticus kempeleni THORELL, 1872

X.kempeleni: UTOTCHKIN, 1968: figs. 95-97 (♀ and ♂).

X.kempeleni: LEVY, 1976: 25-27, figs. 45-48 (♀ and ♂).

Material examined: Turkmenistan, 1♀, SW Kopetdagh, foothills of Damdam Mt. Range, 17.05.1982 (B.P.ZAKHAROV) (BI).

Distribution: Europe, Israel (LEVY, 1976) and South-West Turkmeni-

Xysticus kochi THORELL, 1872

Material examined: Turkmenistan, 3♀, SW Kopetdag, Syunt-Khasardagh Reserve, 1982 (N.U.) (1♀ ZMMU; 1♀ BI; 1♀ JW).

Distribution: Europe, Mediterranean, Caucasus, Syria, Israel (LEVY, 1976) and West Turkmenistan.

Xysticus lapidarius UTOTCHKIN, 1968

Material examined: Kazakhstan: 1♂, Taldy-Kurgan Area, Panfilof Distr., 65 km from Nizhni Pidzhim, Moiynkum Sands, 6.10.1989 (IZA); 1♂, Dzhambul Area, Moiynkumski Distr., 28 km N of Furmanovka, 20.10.1989 (A.Z.) (IZA). Tajikistan, 1♂, Tigrovaya Balka Reserve, 11.08.1968 (S.ISAKOV) (PIS).

Distribution: Middle Asia.

Xysticus loeffleri ROEWER, 1955

X.loeffleri ROEWER, 1955: 777, fig. 25, holotype ♀ (RII/11455) from Lahidschan (Lahijan) Iran, in Senckenberg Museum (SMF), examined.

Ozyptila clavidorsum ROEWER, 1959: 29, fig. 4 (♀), paratype ♀ (RII/11943) from Anatolian, Turkey, in SMF, examined.

Probably syn.n.

X.afghanus ROEWER, 1961: 18, figs. 99-100 (♀), paratype ♀ (RII/13684) from Afganistan, in SMF, examined. Syn.n.

X.cribratus [non SIMON]: UTOTCHKIN, 1968, fig. 134 (♀).

X.(Proxysticus) turanicus CHARITONOV, 1969: 119-120, figs. 11-12 (♀ and ♂) from Yakkabag, Uzbekistan, in Perm State University. Syn.n.

X.turanicus: MARUSIK, LOGUNOV, 1990: 45-46, figs. 39-41 (♀ and ♂).

Material examined: Kazakhstan: 2♀, Dzhambul Area, Moyinkumski Distr., Karabuget, 29.06.1989 (A.Z.) (ZMMU); 1♀, same district, 17 km E of Khantau Vill., 12.06.1990 (A.F., A.Z.) (BI); 1♂, Alma-Ata Area, NE bank of Kaptchagay Water Reservoir, 9.09.1989 (A.Z., A.F.) (ZMMU). Uzbekistan, 4♀, Dzhizak Area, Tashkent-Samarkand Road, turn to Bakhmal Vill., 5.05.1990 (A.F., A.Z.) (BI). Turkmenistan: 1♂, 1♀, Environs of Nebit-Dagh Town, foothills of Bolshoy Balkhan Mt. Range, 8.11.1982 (V.F.) (ZMMU); 1♂, 1♀, Firuza, Kopet-dagh Reserve, 19-29.10.1990 (V.V.DUBATOLOV) (BI). Tajikistan: 1♀, South slope of Karateginski Mt. Range, 5.04.1976 (Y.L.) (ZMMU); 1♀, Gandzhyno, 20.04.1966 (PIS); 1m, W Pamir, Parzut Kishlak, Shakdara River, 2300 m, 20.08.1977 (V.TURKOV) (JW); 2♀, Khozratisho Mt. Range, 15 km from Muminabad to Chil'dukhtaron,

15.06.1966 (PIS); 4j, North Slope of Zeravshan Mt. Range, Shtut River Basin, Urech River, 2500m, 4.08.1971 (A.STATSENKO) (PIS); 1♂, 4♀, Aktau Mt. Range, environs of Garavuti, 1973-1974 (A.K.) (1♂, 2♀ JW; 1♀ ZMMU); 1♀, Nuratau, 14.05.1976 (A.K.) (BI); 1♀, Ghissar Mt. Range, Karatag, 6.07.1941 (Ye.LUPPOVA) (PIS).

Distribution: Widespread in Middle Asia: from Mangyshlak at the north-west, south to Iran and Afghanistan.

Xysticus luctuosus (BLACKWALL, 1836) Figs. 28-29

Material examined: Kazakhstan, 1♀, East-Kazakhstan Area, Ulansk and Samarsk Districts, Kaindinski Forest, 26-28.08.1985 (A.B. NENILIN et al.) (IZA).

Distribution: Circumholarctic range.

Xysticus mongolicus SCHENKEL, 1963

Material examined: Kazakhstan, 1♂, Taldy-Kurgan Area, Panfilof Distr., 65 km from Nizhni Pidzhim, Moiynkum Sands, 6.10.1989 (IZA).

Distribution: From Alma-Ata (MARUSIK, LOGUNOV, 1990) and Taldy Area on the west, east to China.

Xysticus minor CHARITONOV, 1946

Material examined: Kirghizia, 1♂, Talass Distr., Chichikan River, 07.1986 (A.Z.) (JW). Turkmenistan: 4♀, Kurkulab, 20-27.05.1977 (G.K.) (ZMMU). SW Kopetdag: 1♂, Khodzakhala, 400 m, 1-18.11.1981 (N.M.YERMAKOV) (ZMMU); 1♂, Kara-Kala, 300 m, 14-23.03.1985 (T.L.) (JW); 1♂, Syunt-Khasardagh Reserve, 10-20.12.1984 (T.SORGINA) (ZMMU). 1♂, Central Kopetdag, Kurgaudan Canyon, 19-26.03.1980 (G.K.) (ZMMU); 1♂, 1♀, Krasnovodsk Area, Chil'mamedkum Sands, 1985 (E.KHASHNIKOV) (ZMMU); 1♂, W Turkmenia, Chil'mamedkum Sands (desert), Ubyk Vill., 5.11.1984 (E.KHAGIKOV) (ZMMU); 2♂, Badkhs, Kysyl-Djar, 17-18.02.1978 (KRIVOKHATSKI) (ZMMU); 1♂, Repetek, 7.03.1982 (KRIVOKHATSKI) (ZMMU); 1♂, 1♀, same locality, 31.03.-4.04.1989 (O.L.) (BI); 1♂, Environs of Ashkhabad, Bezenji, 04.1980 (G.K.) (ZMMU); 6♂, same locality, 25.07.1979 (G.K.) (ZMMU); 1♂, same locality, 30-31.10.1990 (V.V.DUBATOLOV) (BI). Tajikistan: 4♀, Kurkulab, 20-27.05.1977 (G.K.) (JW); 2♀, Shugnanski Mt. Range, environs of Khorog, Sangou-dara, 3800-4000 m, 15.10.1970 (PIS); 1♂, 5♀, Aktau Mt. Range, environs of Garavuti, 02.-06.1973 (A.K.) (BI); 1♂, 1♀, environs of Gandzhyno, Aruk-Tau Mt. Range, 29.10.1969 (T.DOMRACHOVA) (PIS); 1♂, Pamir, Sarezskoye Lake, Irkht meteorological station, 2.08.1989 (A.V.ABRAMOV) (BI).

Distribution: Widespread in Middle Asia, from South Kazakhstan south to Afghanistan [ROEWER (1961) mentioned this species as *X. acerbus*, female and male in SMF, examined], from Krasnovodsk Area on the west, east to Tajikistan.

Xysticus ninnii THORELL, 1872

X. ninnii: UTOTCHKIN, 1968: figs. 107-109.
X. ninnii: THALER, 1981: figs. 54-56 (♂).

Material examined: Kazakhstan: 1♂, Pavlodar Area, Yermakovsk Distr., environs of Aksu Vill., Irtysh River Valley, 26.06.1990 (O.L.) (BI); 1♂, East Kazakhstan Area, Zaisan Distr., Sarybulak River, 7.06.1990 (K.E.) (IBPN). Turkmenistan: 4♂, Central Kopetgadh, Germab, 16-22.06.1982 (G.K.) (ZMMU); 2♂, SW Kopetdagh, Syunt-Khasardagh Reserve, 05.1982 (N.U.) (ZMMU).

Distribution: Europe and Middle Asia.

Xysticus ovtsharenkoi MARUSIK et LOGUNOV, 1990

Material examined: Uzbekistan, 1♀, Karaulbazar, 25.08.1980 (A.B. NENILIN) (ZMMU). Turkmenistan: SW Kopetdagh: 5♂, Peredovoy Mt. Range, 1000 m, 20.06.1985 (S.T.ZABELIN) (3♂ ZMMU; 2♂ JW); mm, near Kizil-Arvat, 800 m, 20.06.1983 (V.F.) (ZMMU); 4♂, Syunt-Khasardagh Reserve, 18.06.1982 (N.U.) (BI). 1♂, W Kopetdagh, El'dere Canyon, 23.05.-3.06.1980 (V.F.) (JW); 1♂, Central Kopetdagh, Mirzadagh, 22.06.-2.07.1981 (G.K.) (ZMMU); 1♂, Central Kopetgadh, Germab, 16-22.06.1982 (G.K.) (JW); 1♂, Ashkhabad, Bekrava, 3.04. 1977 (G.K.) (BI). Tajikistan: 1♀, Turkestan Mt. Range, near Kusavli-Say, 30.09.1970 (PIS); 1♂, Dushambe-Khorog Road, 10 km of Kom-somolabad, 3.07.1970 (PIS); 1♂, 1♀, Ramit, 1-7.07.1967 (PIS); 1♀, Beshkentak Canyon, 26-30.05.1967 (PIS); 1♂, 1♀, Kondara, Kvak, 23.06.1967 (PIS); 1♀, Kondara, 29.07.1948 (Ye.LUPPOVA); 1♀, Takob, Mel'nichny (Mill) Say, 5.07.1966 (PIS); 1♀, Maikhura River near coinfluence with Kaznokh, 2400 m, 07.1967 (T.KURBANOVA) (PIS); 2♀, Pamir, Manem Kishlak 12 km from Khorog, 11.07.1976 (A.KONONENKO) (PIS); 1♀, Pyandz River Valley, Spring 1970 (E.A.) (PIS); 1♀, Khorog botanical garden, 2320 m, 23.06.1970 (L.ZHARKOVA) (PIS); 1♀, North slope of Alay Mt. Range, Sokh River Valley, 1600 m, 24.06.1970 (PIS); 2♂, Aktau Mt. Range, Gandzhyno Vill., 24.06.1969 (T.DOMRACHOVA) (PIS); 1♀, environs of Gandzhyno, Aruk-Tau Mt. Range, Barsovoye Canyon, 8.06.1969 (T.DOMRACHOVA) (PIS); 1♀, Ghissar Mt. Range, Takob Canyon, 1850m, 17.07.1969 (E.A.) (PIS).

Distribution: South Middle Asia: Turkmenistan and Tajikistan, female from Uzbekistan belongs to *X.turlan* possibly.

Xysticus palpimirabilis MARUSIK et CHEVRIZOV, 1990

X.palpimirabilis MARUSIK et CHEVRIZOV, 1990: 89-91, figs. 1-6 (♂).

Material examined: Kirghizia, holotype ♂, Terskey-Alatoo Mt. Range, Chon-Kysyl-Su River basin, 2400 m, 26.06.1966 (P.V.) (ZMMU).

Distribution: Type locality only (MARUSIK, CHEVRIZOV, 1990).

Xysticus robustus (HAHN, 1831)

X.robustus: UTOTCHKIN, 1968: figs. 130-131.

Material examined: Kazakhstan, 1♂, Pavlodar Area, Kyzyl-Tau Reserve, 30.06.1989 (O.L.) (BI).

Distribution: Europe and North-East Kazakhstan.

Xysticus striatipes L.KOCH, 1870

Material examined: Kazakhstan, Pavlodar Area: 2♂, environs of Pavlodar, 20.06.1988 (O.L.) (JW); 1♀, same locality, 2.05.1990 (O.L.) (JW); 1♂, 45 km N of Pavlodar, 19.09.1989 (O.L.) (JW); 1♀, Kyzyl-Tau Reserve, 15.08.1989 (O.L.) (BI); 2♂, 2♀, environs of Yaminyeyevski Sovkhoz, 12.09.1989 (O.L.) (BI); 6♂, Maisky Distr., Kirovski Sovkhoz, 10-15.08.1989 (O.L.) (BI); 1♂, Bayanaul Distr., Alka-Mergen Lake, 24.08.1990 (O.L.) (ZMMU). Kirghizia, 1♂, Tyan-Shang, Issyk-Kul' Lake hollow, Pokrovka Village, 1700 m, 24.08. 1965 (P.V., ZLOBIN) (PIS).

Distribution: Transpalearctic range.

Xysticus tristrami (O.P.CAMBRIDGE, 1872) Figs. 52-54

Material examined: Kazakhstan: 1♂, Dzhambul Area, Moyinkum Distr., 17 km E of Khantau, Khantau Mt. foothill of Sunkar Mt., 12.06.1990 (A.F., A.Z.) (BI); 5♀, Alma-Ata Area, Yli Distr., Kapchagai Town, 18-27.05.1988 (A.Z.) (BI). Turkmenistan, 1♀, Krasnovodsk Area, Chimanmedkum Sands, 05.1985 (E.KHASHNIKOV) (ZMMU). Tajikistan: 1♂, Dushanbe, 06.1968 (Ya.G.RAMAZANOVA) (PIS); 1♂, Karatau Mt. Range, Ak-Kutal'Mt. Range, 23.04.1974 (K.N.) (BI); 2♀, Aktau Mt. Range, Garavuti, 14.03.-17.04.1974 (A.K.) (BI).

Distribution: From the Saudi Arabia on the West east to Tajikistan.

Material examined: Kazakhstan: 1♀, Chimkent Area, Tyul'kubas Distr., Aksu-Djabagly Reserve, 10.07.1973 (A.K.) (JW); Dzhambul Area: 13♂, Krasnogorsk Distr., 17 km NW Kenen Vill., Chu-Ili Mt. Range, 14-15.06.1990 (A.F., A.Z.) (6♂ JW; 7♂ BI); 1♂, 1♀, Moyinkum Distr., 17 km E Khantau Vill., Khantau Mt., foothills of Sunkar Mt., 12.06.1990 (A.F., A.Z.) (BI).

Measurements (mm).

Female. Carapace: 3.3-3.8 long, 3.2-3.8 wide, clypeus 0.40-0.49, MOA-WA 0.64-0.79, MOA-WP 0.69-0.86, MOA-L 0.61-0.69, chelicerae 1.06-1.33, AME 0.09-0.10, ALE 0.19, PME 0.10, PLE 0.15, AME-AME 0.44-0.60, AME-ALE 0.27-0.37, PME-PME 0.46-0.64, PME-PLE 0.53-0.64.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	3.1-2.4	1.4-1.8	2.3-2.5	2.1	0.9-1.0
II	2.7-3.4	1.5-1.9	2.1-2.4	1.9-2.1	0.9-1.0
III	2.0-2.3	1.0-1.3	1.4-1.6	1.3-1.4	0.8
IV	2.1-2.6	1.1-1.2	1.5-1.8	1.5-1.6	0.8-0.9

Description. Colouration variegated, dorsally darker (red-brown with yellow spots), ventrally lighter (yellow with red-brown spots). Carapace basally with yellow trapezial spot. Carapace and abdomen dorsally covered with thick near clavate spines (setae). Chelicerae and palps prolaterally with numerous spines. Leg I spination: v. 2-2-1-2-2-2-2ap; metatarsus p. 1-1-1-1-1-2ap, r. 1-1-1-1-2ap, v. 2-2-2-2-2-2. Epigyne as in figs. 55-56.

Diagnosis: Females of *X.turlan* are very similar to that of *X.ovtsharenkoi* from which they can be separated by the shape of epigynal scape.

Distribution: South-Central Kazakhstan. The range of this species does not overlap with that of closely related species, *X.ovtsharenkoi*.

Material examined: Kazakhstan: 1♂, Taldy-Kurgan Area, Panfilovsk Distr., 31 km from Sholakai Vill., Karakim Sands (Desert), 07.10.1989 (A.Z.) (BI). Turkmenistan, 1♂, Krasnovodsk Area, Chimamedkum Sands, 10.1985 (E.KHASHNIKOV) (ZMMU).

Distribution: From West Kazakhstan and Turkmenistan northeast to East Kazakhstan Area.

X.viduus: UTOTCHKIN, 1968: figs. 30-33 (♀ and ♂).

Material examined: Kazakhstan: 1♀, Environs of Pavlodar, Irtysh River Valley, 23.09.1990 (O.L.) (JW); 1♀, Pavlodar Distr., Zyrya Sovkhoz, 27.06.1990 (O.L.) (BI).

X.furcillifer SCHENKEL, 1936: 140-142, figs. 49a & b, holotype ♀ from "Sud-Kansu, Ardjuan, Min-shan", China in NRS, examined. Syn.n.

Material examined: Tajikistan, 2♂, Anzob Pass, 3500 m, 23.06.1967 (V.C.) (PIS); 12♀, Anzob, Summer 1967 (V.C.) (PIS).

Description. Male. Total length 3.9-4.3. Carapace: 1.8 long, 1.6-1.7 wide, dark brown or grey-brown, a white median band ends in the anterior part of the slope; because of the anterior brown V-shaped mark, the median band looks like a V-shaped mark; sides of thorax with numerous longitudinal yellow spots. Clypeus with 7 long macrosetae. Sternum light, with brown dots. Abdomen dirty white. Femora and patellae I and II brown, except for promarginal sides which are white. Femur I with 3 prolateral spines. Palp as in figs. 57-58. Embolus long, curved in a spiral, with exposed apical part, base of embolus with a distinct embolic spine. Tegular apophysis absent, but at basal part of tegulum there is a strong tegular projection.

Female. Measurements. Carapace: 2.20 long, 2.10 wide, MOA-WA 0.54, MOA-WP 0.56, MOA-L 0.49, clypeus 0.21, chelicerae 0.83, AME 0.08, ALE 0.14, PME 0.06, PLE 0.10, AME-AME 0.41, AME-ALE 0.21, PME-PME 0.43, PME-PLE 0.4.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.55	0.90	1.18	1.10	0.68
II	1.68	0.90	1.18	1.08	0.70
III	1.30	0.63	0.78	0.73	0.55
IV	1.40	0.55	0.70	0.80	0.65

Description. Carapace sandy-coloured with brownish stripes and two basal dark red-brown triangle spots basally. Sternum sandy-coloured with red-brownish dots. Labium red-brown, maxillae and chelicerae sandy-coloured. Abdomen uniformly grey-sandy, branchial opercula red-brown. Legs sandy-coloured with red-brown dots and stripes. Epigyne as in figs. 59-60.

Diagnosis. *X.xysticiformis* undoubtedly belongs to the *labradorensis*-group of *Xysticus* recently revised (MARUSIK, 1989). By the shape of the tegulum, the new species is similar to the representatives of the *sibiricus*-subgroup in having no tegular ridge, but it is distinguished easily from all the representatives of the *labradorensis*-group by the strong projection of the tegulum. During copulation, this projection probably plays a role analogous to the strong basal tegular ridge of *X.labradorensis* KEYSERLING, *X.deichmanni* SOERENSEN, *X.albidus* GRESE and *X.nenilini* MARUSIK. The

thin embolus is somewhat similar to that of *X.rugosus* BUCKLE et REDNER, but the presence of the embolic spine and exposed apical part of the embolus indicate that *X.xysticiformis* belongs to the *labradorensis*-subgroup (for diagnosis of the subgroups, see below). - The holotype of *X.furcillifer* is smaller than specimens from Middle Asia, but size of epigyne are equal.

Remarks. As *X.xysticiformis* belongs to the *labradorensis*-group and is also related to *X.zonssteini*, we would like to remark at length about the composition and diagnosis of the *labradorensis*-group and its two subgroups, which were defined by MARUSIK, 1989.

Diagnosis of the *labradorensis*-group. The *labradorensis*-group contains the species in which the males have no tegular apophyses, the base of the embolus is situated in the retrolateral apical part of the bulbus, the embolus is always spirally, and the palpal tibia has two apophyses of characteristic shape.

Composition: *X.labradorensis* KEYSERLING 1877 (Labrador and Manitoba), *X.deichmanni* SORENSEN 1898 (Greenland, Canadian High Arctic across to the Yukon Territory), *X.albidus* GRESE 1909 (hyparctic and Arctic belts of the Palaearctic), *X.nenilini* MARUSIK 1989 (Yakutia and South Siberia), *X.bonneti* DENIS 1938 (European Mountains, South Ural and SW Siberia), *X.rugosus* BUCKLE et REDNER 1964 (Rocky Mountains of USA and Canada, Siberia (Upper Kolyma and Tuva), *X.sibiricus* KULCZYNSKI 1908 (Siberia), *X.potamon* ONO 1978 (Nepal), *X.torsivus* TANG et SONG 1988 (China), *X.zonssteini* MARUSIK 1989 (Tien-Shang), *X.daisetsuzanus* ONO 1988 (Hokkaido) and *X.xysticiformis* CAPORIACCO, 1935 (Karakoram and Tien-Shang).

By the shape of both the embolus and tegulum, it is easy to divide the *labradorensis*-group into two subgroups. The *labradorensis*-subgroup has the apical part of embolus exposed, base of embolus turned apically (except for *X.potamon*), the base of embolus usually with a spine (denticle), and the tegulum usually with strong tegular ridge. The component species are: *X.labradorensis*, *X.deichmanni*, *X.albidus*, *X.daisetsuzanus*, *X.nenilini*, *X.xysticiformis*, *X.torsivus* and probably *X.potamon*.

The *sibiricus*-subgroup has the embolus spiralled in one plane, the tegulum without a strong, basal tegular ridge or with small apical one, embolic spine absent. The component species are: *X.sibiricus*, *X.bonneti*, *X.rugosus* and *X.zonssteini*.

Distribution: Mountains of Kirghizia, Tajikistan, South Kansu and Karakoram Mt. Range.

Xysticus zonssteini MARUSIK, 1989 Figs. 61-62

X.zonssteini MARUSIK, 1989: 141-142, figs. 2 (1-4) (♂), in ZMMU.

Material examined: Kirghizia, 1♀, Kungey-Alatau Mt. Range, Toru-Aigyr, 14.05.1970 (A.K.) (BI); 1♂, 45 km W from Sary-Tash, Alay

Valley, 2850 m, 8.10.1970 (E.A.) (PIS). Tajikistan: 3♂, North slope of Alaiski Mt. Range, Naukat Research Station, upper flow of Mazar-Say River, 2400-3200 m, 1970 (L.ZHYLTSOVA) (PIS).

Measurements (mm).

Female. Carapace: 1.83-1.93 long, 1.73-1.90 wide, clypeus 0.17-0.20, MOA-WA 0.41-0.44, MOA-WP 0.44-0.51, MOA-L 0.40-0.45, chelicerae 0.64, AME 0.07, ALE 0.13, PME 0.06, PLE 0.09, AM E-AME 0.28-0.30, AME-ALE 0.18-0.21, PME-PME 0.33-0.38, PME-PLE 0.36-0.41.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	1.30-1.53	0.73-0.83	0.98-1.05	0.85-0.93	0.48-0.58
II	1.43-1.50	0.73-0.85	0.98-1.00	0.93	0.53-0.55
III	1.05-1.15	0.50-0.55	0.63	0.55-0.58	0.46-0.48
IV	1.15-1.18	0.50-0.63	0.73-0.78	0.65-0.68	0.55

Description. Carapace red-brown with a median yellow band, sternum cream-coloured with red-brownish dots. Maxillae, labium and chelicerae red-brown to cream-coloured, abdomen cream-coloured, dorsally with two wide longitudinal orange bands, ventrally with red-brown dots. Leg I spination: femur d.0-1-1-0 or 0-0-0-0, p.0-1-1-0, tibia v.2-2-2, metatarsus p.0-1-2ap., v.2-2. Epigyne as in figs. 61-62.

Diagnosis. Females can be easily distinguished from all other representatives of the *labradorensis*-group and *sibiricus*-subgroup by the shape of the epigynal fovea and receptacles.

Xysticus lindbergi ROEWER, 1961 Figs. 63-64

Material examined: Paratype 1 ♀, RII/13686, no. 675 from Afghanistan, in SMF.

Total length 8.0. Carapace: 4.1 long, 3.9 wide, red-brown. Abdomen grey. Sternum yellow with red-brown spots. Legs red-brown with white spots and stripes. Chelicerae and clypeus with numerous macrosetae. Femur I with 3 prolateral spines, tibia I with 8 pairs of ventral spines, metatarsus - with 7. Epigyne as in figs. 63-64.

Diagnosis: *X.lindbergi* can be easily distinguished from all other *Xysticus* females from Middle Asia by the oval shape of the fovea and the shape of receptacles. This species is very similar to *X.sabulosus* (sensu TULLGREN, 1944, and ROBERTS, 1985).

Distribution: Known from type locality only.

Xysticus soederbomi SCHENKEL, 1936 Figs. 65-67

Material examined: Paratype 1♀, No 415 from "S.W.Mongol.", in NRS.

Total length 9.5. Carapace: 3.7 long, 3.4 wide. Entire body discoloured by alcohol and uniformly yellow. Chelicerae with numerous macrosetae. Femur I with 3 prolateral spines, tibia with 4 pairs and metatarsus with 6 pairs of ventral spines. Epigyne as in figs. 65-67.

Diagnosis: Related to X.turkmenicus sp.n., from which it can be distinguished by the greater size of the fovea, smaller distance between fovea, and longer seminal ducts.

Distribution: Known from type locality only. The record of PAKHORUKOV & UTOTCHKIN (1977) (p. 92, fig.4 (f)) of X.soederbomi from the North Ural was based on a different species.

Because of possibility to check many faunistic records given by FET (with co-authors) from Turkmenistan, and by ANDREEVA from Tajikistan, we were able to correct some determinations and to compile a new check list of Middle Asian thomisids, which was based on MIKHAILOV's unpublished catalogue.

Checklist of Thomisidae from Middle Asia and Kazakhstan: Diaea suspicosa, Heriaeus buffonopsis, H.capillatus, H.charitonovi, H.fedotovi, H.horridus, H.oblongus ?, H.spinipalpus, Misumena vativa ?, Misumenops armata, M.tricuspidatus, M.turanica, Monaeses israelensis, Ozyptila atomaria, O.conostyla, O.lugubris, O.praticola, O.pseudobitea, O.rauda, O.scabricula, O.tricoloripes, Pistius undulatus, Runcinia lateralis, R.tarabayevi, Stiphropus strandi, Synema globosum, S.ornatum?, S.plorator, S.tadzhikistanicum, S.utotchkini sp.n., Thomisus onustus, T.zyuzini, Tmarus horvathi, Xysticus acerbus, X.altaicus?, X.abramovi sp.n., X.audax, X.bakanas, X.baltistanus, X.bifasciatus, X.caspicus, X.concinnus, X.cristatus, X.dzungaricus, Xembriki, X.ephippiatus, X.inaequalis, X.kaznakovi, X.kempeleni, X.kochi, X.kuzgi, X.lapidarius, X.lineatus, X.loeffleri, X.luctuosus, X.minor, X.mongolicus, X.ninni, X.ovadan sp.n., X.ovtsharenkoi, X.palpimirabilis, X.pseudoluctuosus sp.n., X.pygmaeus, X.robustus, X.striatipes, X.taukumkurt, X.tristrami, X.turkmenicus sp.n., X.turlan, X.tyshchenkoi sp.n., X.ulkan sp.n., X.ulmi, X.urgumchak, X.viduus, X.xysticiformis, X.zonshteini, X. cf. inaequalis, X. cf. obesus.

North Kazakhstan is quite different zoogeographically from south part and from all other Asian republics. For this reason in the text given below we used abbreviations "K", meaning North Kazakhstan mainly, and "MA", meaning Middle Asia except for North Kazakhstan.

Misidentified species:

Coriarachne depressa MA - X.zonshteini,
Diaeа dorsata - D.suspicosa,
Heriaeus hirsutus (= H.hirtus or H.oblongus) - misidentification,
H.hirtus MA - misidentification, H.hirtus distributed in Mediterranean east to Yugoslavia, (LOERBROKS., 1983),
H.mellotei K - H.oblongus, distribution of H.mellotei Far East only,
H.oblongus K, MA - MA ?, FET's (1983) not H.oblongus,
Misumena vatia K, MA - MA ? (D.suspicosa or R.tarabayevi),
Misumenops tricuspidatus K, MA - MA ? (D.suspicosa or R.tarabayevi),
Monaeses caudicola MA ? - M.israelensis,
M.paradoxus MA - M.israelensis,
Ozyptila blackwalli MA - ???,
O.brevipes MA - ???,
O.horticola MA - O.atomaria,
O.sanctuaria - O.conostyla,
Pistius truncatus K - P.undulatus,
Synaema plorator K, MA - K and MA (except SW Turkmenistan) S.
utotchkini sp.n.,
Thomisus albus - T.onustus and T.zyuzini,
Tmarus piger K - T.piger or T.rimosus (latter was recorded from Kurgan Area by LOGUNOV, 1990),
X.altaicus K - ?,
X.caperatus MA - X.ovadan sp.n.,
X.cribratus MA - X.loeffleri,
X.croceus FOX K ? - X.obscurus COLLET,
X.graeucus K ? (SPASSKY, SHNITNIKOV, 1937),
X.lalandei - X.loeffleri,
Xysticus luctuosus - K, but different species in Tajikistan,
X.nataliae K - misidentification,
Xysticus obesus - X.sp. (species mentioned by CHARITONOV, 1969, fig. 10, ANDREEVA, 1976, and in MARUSIK, LOGUNOV, 1990 belongs to the different species, holotype female of X.obesus in NRS (or Helsinki?), examined,
X.rectilineus MA, - X.loeffleri,
X.robustus K, MA, - in K (in MA X.loeffleri),
X.sabulosus K, MA - X.tyshchenkoi sp.n.

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REFERENCES

DIPPENAAR-SCHOEMAN, A.S. An annotated check-list of crab spiders (Araneae: Thomisidae) of Saudi Arabia. - Fauna of Saudi Arabia, 10: 20-30, figs. 1-8.

DONDALE, C.D., REDNER, J.H. The genus Ozyptila in North America (Araneida, Thomisidae). - J. Arachnol., 2: 129-181, figs. 1-107.

DUNIN, P.M., 1984. Fauna and ecology of spiders (Aranei) of the Apsheron Peninsula (Azerbaijan SSR). - Fauna and ecology of arachnids, Perm State University: 45-60, figs. 1-14. (In Russian).

FET, V.Ya., 1982. New for the USSR spider species from Kopetdag, Oxyptila tricoloripes STRAND, 1913 (Aranei, Thomisidae). - Izv. Akad. Nauk Tukmen. SSR (Biol. Nauk), 5: 74-75.

HIPPA, H., S.KOPONEN, I.OKSALA, 1986. Revision and classification of the holarctic species of the Ozyptila rauda group (Aranea, Thomisidae). - Ann. Zool. Fennici, 23: 321-328, figs. 1-3(21).

LEVY, G., 1975. The spider genera Synema and Ozyptila in Israel (Araneae: Thomisidae). - Isr. J. Zool., 24: 155-175, figs. 1-33.

LEVY, G., 1976. The spider genus Xysticus (Araneae: Thomisidae) in Israel. - Isr. J. Zool., 25: 1-37, figs. 1-64.

LOGUNOV, D.V., 1990. New data on spiders from the families Atypidae, Araneidae, Pisauridae and Thomisidae of the USSR fauna. - Arthropods and helminths, Novosibirsk: 33-43, figs. 1-5. (In Russian).

MARUSIK, Yu.M., 1988. New species of spiders (Aranei) from the Upper Kolyma. - Zool. Zh., 67(10): 1469-1482, figs. 1-7. (In Russian).

MARUSIK, Yu.M., 1989. Two new species of the spider genus Xysticus and synonymy of crab spiders (Aranei, Thomisidae, Philodromidae)

from Siberia. - Zool. Zh., 68(4): 140-144, figs. 1-2(17). (In Russian).

MARUSIK, Yu.M., 1989. New data on fauna and synonymy of spiders from USSR. - Fauna and ecology of spiders and scorpions. Moscow: 39-52. (In Russian).

MARUSIK, Yu.M., D.V. LOGUNOV, 1990. The crab spiders of the Middle Asia USSR (Aranei, Thomisidae). 1. Descriptions and notes on distribution of species. - Korean Arachnol., 6(1): 31-62, figs. 1-58.

MARUSIK, Yu.M., B.P.CHEVRIZOV, 1990. Three new crab spiders from the Asian part of the USSR (Arachnida, Araneae: Thomisidae). - Reichenbachia Mus. Tierkd., Dresden, 27(15): 89-93, figs. 1-11.

ONO, H., 1986. Spiders of the families Clubionidae, Gnaphosidae and Thomisidae from Noto Peninsula and the Southern Part of Ishikawa Prefecture, Japan. - Mem. Natn. Sci. Mus., Tokyo, 19: 167-174, figs. 1-13.

ONO, H., 1985. Revision einiger Arten der Familie Thomisidae (Arachnida, Araneae) aus Japan. - Bull. Natn. Sci. Mus., Tokyo, Ser. A, 11(1): 19-39, figs. 1-51.

ONO, H., 1988. A revisional study of the spider family Thomisidae (Arachnida, Araneae) of Japan. - National Sci. Museum, Tokyo: 2+ii+252, figs. 1-225.

ONO, H., Yu.M.MARUSIK, D.V.LOGUNOV, 1990. Spiders of the family Thomisidae from Sakhalin and the Kurile Islands. - Acta Arachnol., 39(1): 7-19, figs. 1-52.

PAKHORUKOV, N.M., UTOTCHKIN, A.S., 1977. Four new species of spiders (Aranei) to USSR fauna from North Ural. - Vestnik Zoologii, 4: 91-92, figs. 1-4. (In Russian).

ROBERTS, M.J., 1985. The spiders of Great Britain and Ireland. Volume 1: Atypidae to Theridiosomatidae. Harley Books, Colchester, England, 1-229.

SCHENKEL, E., 1936. Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas. - Arkiv för Zoologi, 29A(1): 1-314, figs. 1-110.

SCHENKEL, E., 1963. Ostasiatische Spinnen aus dem Museum d'Historie Naturelle de Paris. - Mem. Mus. Nat. d'Hist. Naturelle, Serie A. Zoologie, 24(1): 1-288, figs. 1-161.

SPASSKY, S.A., SHNITNIKOV, V.N., 1937. Materials to the spider-fauna of Kazakhstan. - Proc. of Kazakh Department Acad. Sci. USSR, 2: 265-300, figs. 1-13. (In Russian, with German summary).

THALER, K., 1981. Bemerkenswerte Spinnenfunde in Nordtirol (Österreich). - Veröff. Mus. Ferdinandea Innsbruck, 61: 105-150, figs.

TULLGREN, A., 1944. Svensk Spindelfauna. Fam. 1-4: Salticidae, Thomisidae, Philodromidae och Eusparassidae. - Entomologiska Foreningen i Stockholm: 1-138, figs. 1-48, and pl. 1-18 (figs. 1-247).

TYSHCHENKO, V.P., 1965. A new genus and new species of spiders (Aranei) from Kazakhstan. - Entomol. Obozr., 44(3): 696-704, figs. 1-11. (In Russian).

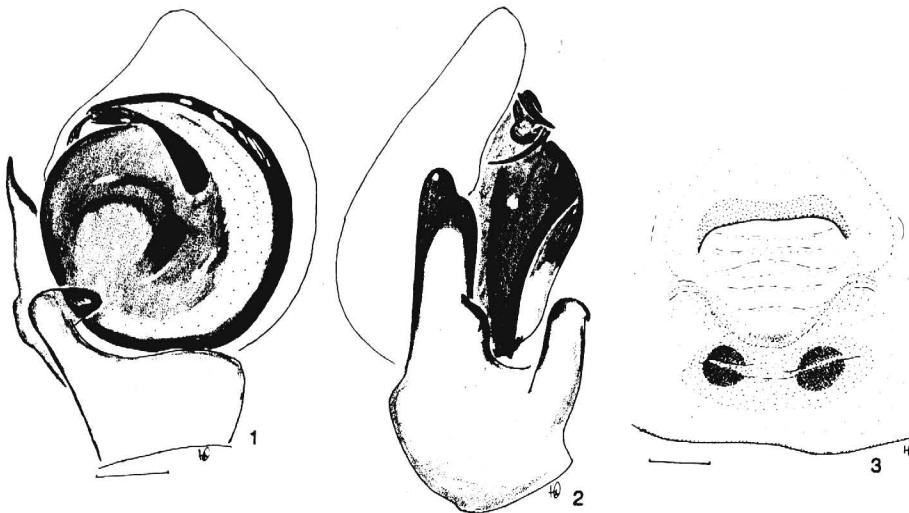
TYSHCHENKO, V.P., 1971. Identification book of spiders of the USSR European part. Leningrad, 1-281, figs. 1-904. (In Russian).

UTOTCHKIN, A.S., 1960a. Spiders of the genus Synaeama, the group globosum (F.) in the USSR. - Zool. Zh., 39(7): 1018-1024, figs. 1-6. (In Russian).

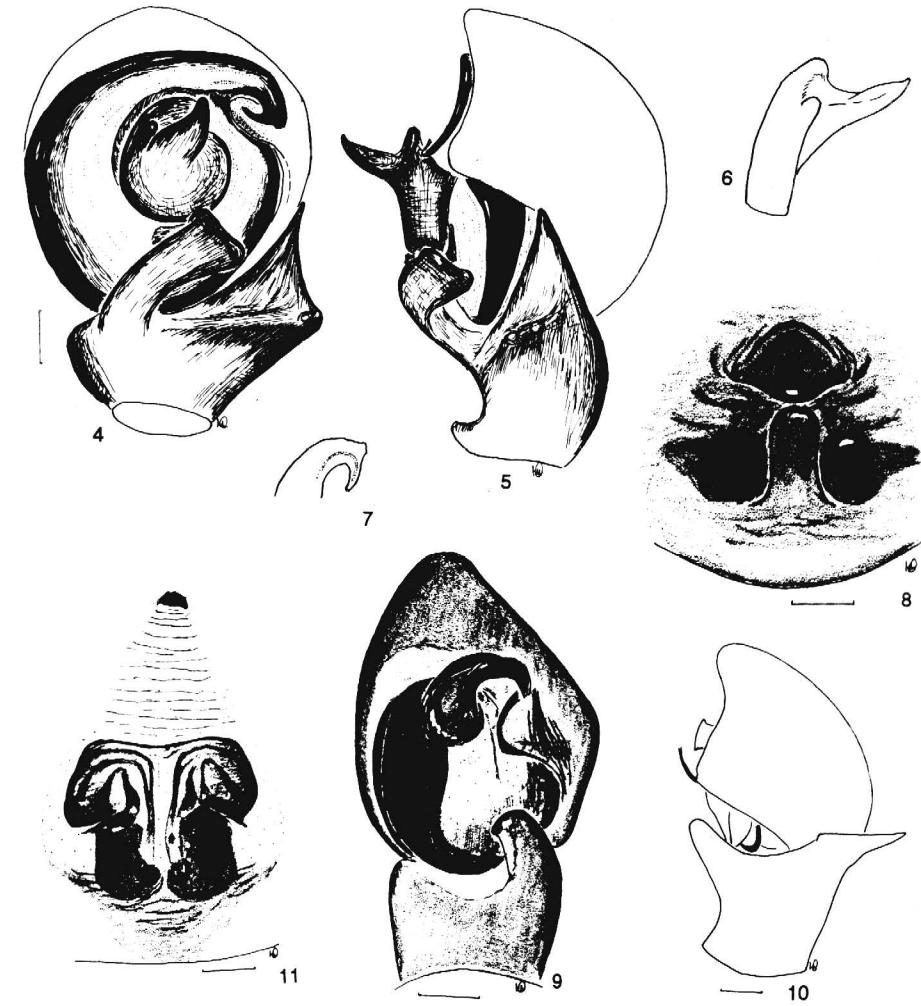
UTOTCHKIN, A.S., 1960b. Spiders belonging to the genus Synaeama, the group plorator (O.P.CAMBR.) in the USSR. - Zool. Zh., 39(3): 375-379, figs. 1-8. (In Russian).

UTOTCHKIN, A.S., 1968. The spider genus Xysticus of the USSR fauna. - Perm State Univ., 1-73, figs. 1-134. (In Russian).

UTOTCHKIN, A.S., 1965. Materials on the spider genus Heriaeus (Aranei, Thomisidae) of the USSR. - Proc. Zool. Inst., Acad. Sci., USSR, 139: 105-113, figs. 1-30. (in Russian).



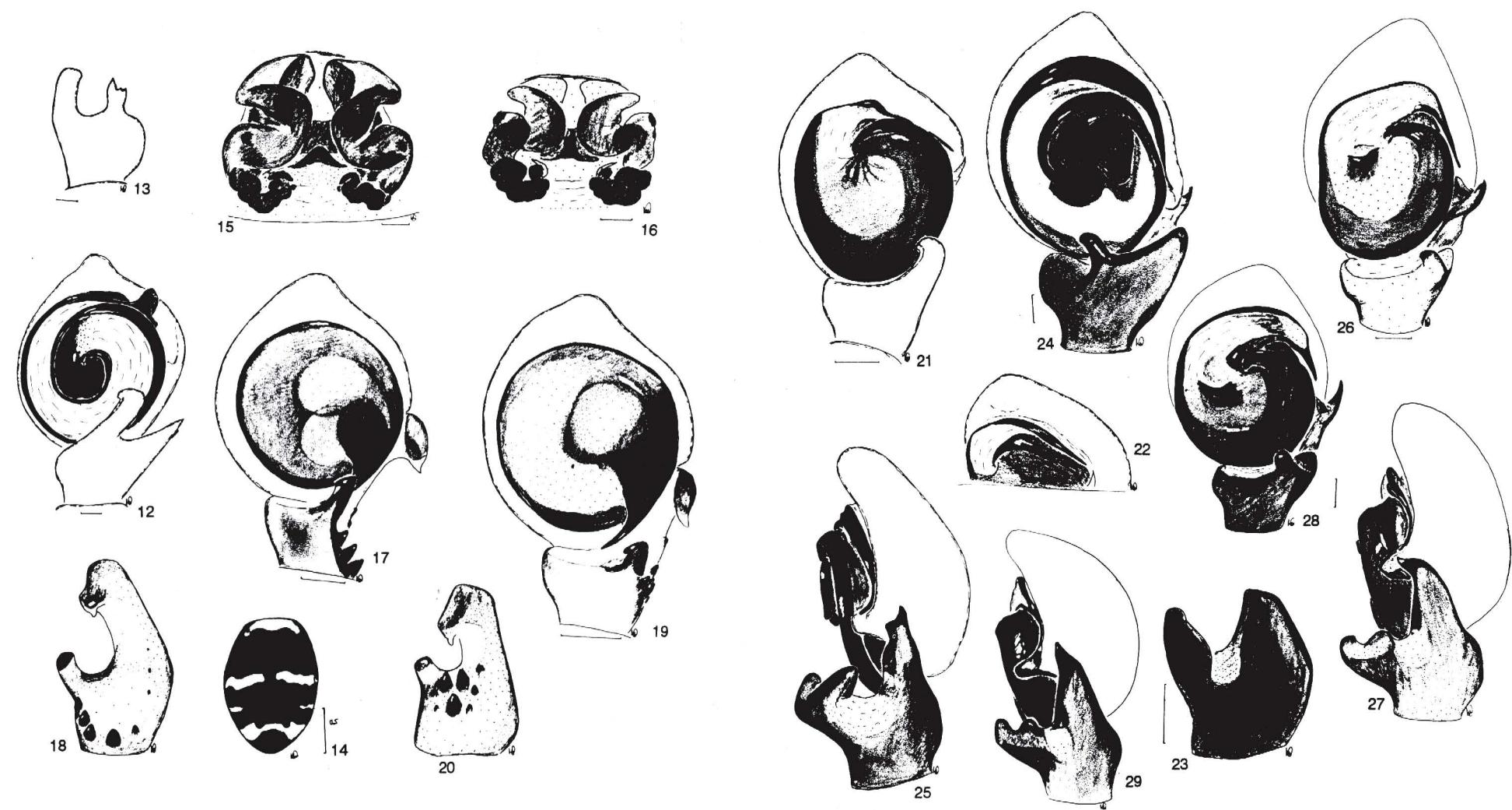
Figs. 1-3. Heriaeus horridus TYSHCHENKO; 1) ♂-palp, ventral view, 2) ♂-palp, retrolateral view, 3) ♀, epigyne, ventral view.



Figs. 4-7. Oxyptila conostyla HIPPA et al. (specimen from Georgia, Caucasus); 4) ♂-palp, ventral view, 5) ♂-palp, retrolateral view, 6) tegular apophysis, prolateral view, 7) tip of embolus, ventral view.

Fig. 8. Ozyptila tricoloripes STRAND, epigyne, ventral view.

Figs. 9-11. Stiphropus strandi SPASSKY (specimens from Turkmenistan); 9) ♂-palp, ventral view, 10) ♂-palp, retrolateral view, 11) ♀, epigyne, ventral view.



Figs. 12-15. *Synema utotchkini* sp.n.; 12) ♂-palp, ventral view, 13) tibial apophyses, 14) ♂-abdomen, dorsal view, 15) ♀, epigyne, dorsal view.

Fig. 16. *Synema plorator* O.P.-CAMBRIDGE; 16) ♀, epigyne, dorsal view.

Figs. 17-18. *Thomisus onustus* WALCKENAER; 17) ♂-palp, ventral view, 18) palpal tibia, retrolateral view.

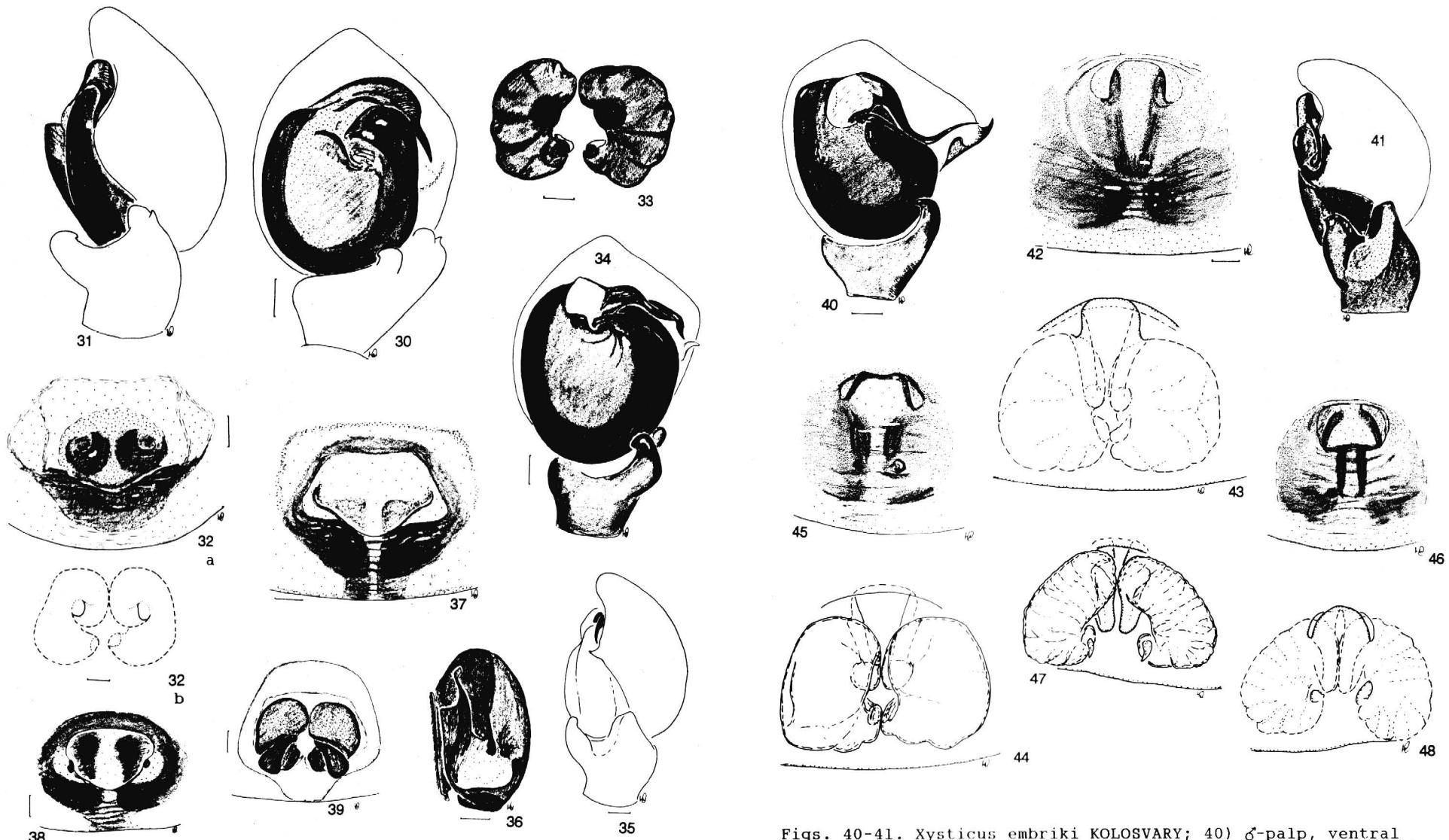
Figs. 19-20. *Thomisus zyuzini* MARUSIK et LOGUNOV; 19) ♂-palp, ventral view, 20) palpal tibia, retrolateral view.

Figs. 21-23. *Xysticus abramovi* sp. n.; 21) ♂-palp, ventral view, 22) apical part of ♂-palp, 23) palpal tibia, retrolateral view.

Figs. 24-25. *Xysticus ovadan* sp. n.; 24) ♂-palp, ventral view, 25) ♂-palp, retrolateral view.

Figs. 26-27. *Xysticus pseudoluctuosus* sp.n.; 26) ♂-palp, ventral view, 27) ♂-palp, retrolateral view.

Figs. 28-29. *Xysticus luctuosus* (BLACKWALL) (specimen from Tuva); 28) ♂-palp, ventral view, 29) ♂-palp, retrolateral view.

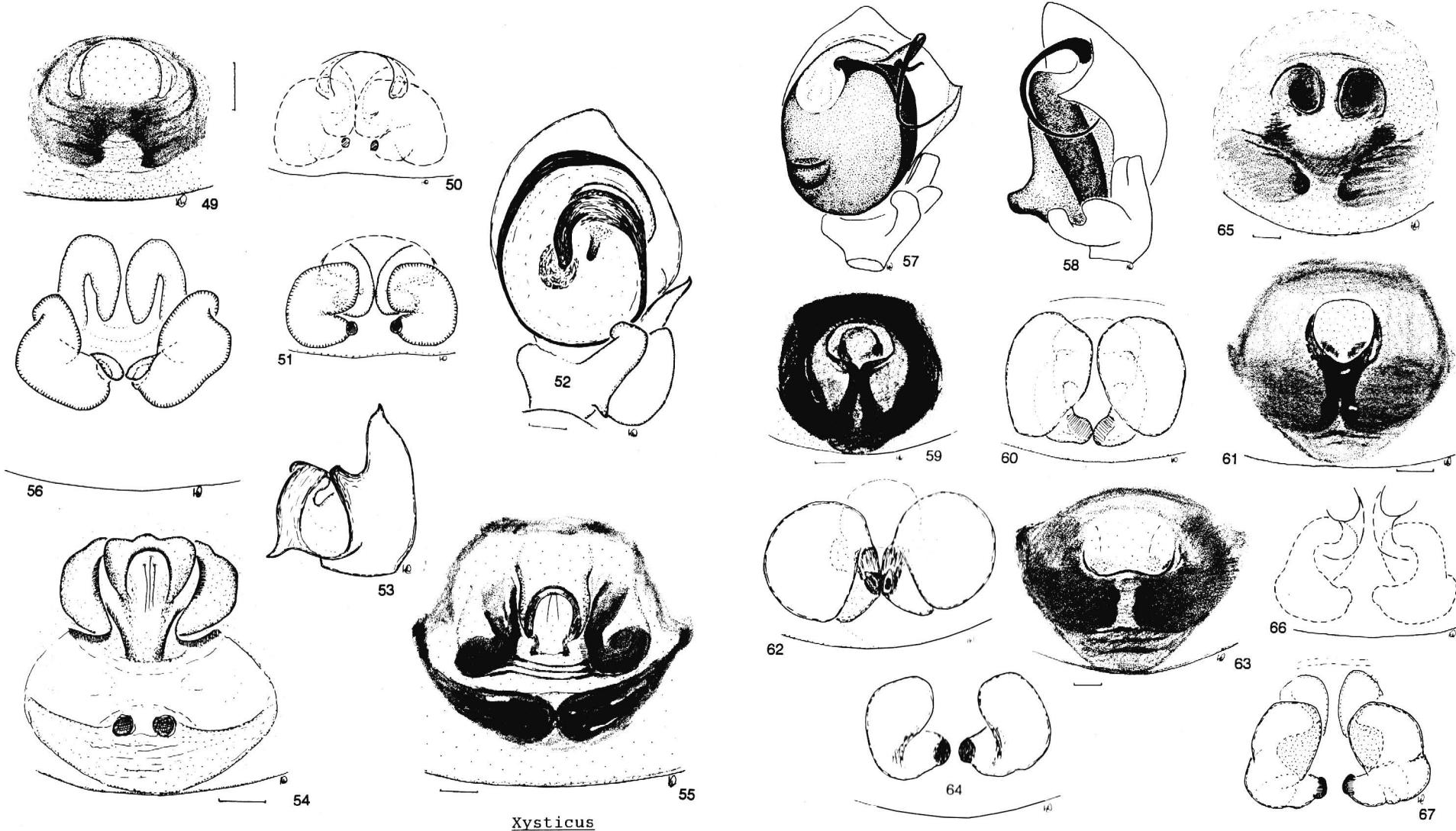


Figs. 30-33. *Xysticus turkmenicus* sp.n.; 30) ♂-palp, ventral view, 31) ♂-palp, retrolateral view, 32a) ♀, epigyne, ventral view, 32b) epigyne after maceration, ventral view, 33) epigyne, dorsal view.

Figs. 34-39. *Xysticus tyshchenkoi* sp.n.; 34) ♂-palp, ventral view, 35) ♂-palp, retrolateral view, 36) embolus from above, 37) ♀, epigyne, ventral view, 38) epigyne, ventral view, 39) epigyne, dorsal view.

Figs. 40-41. *Xysticus embriki* KOLOSVARY; 40) ♂-palp, ventral view, 41) ♂-palp, retrolateral view.

Figs. 42-48. *Xysticus inaequalis* KULCZYNSKI; 42) ♀, epigyne, ventral view (Chimkent Area), 43) epigyne after maceration, ventral view (Chimkent Area), 44) epigyne, dorsal view (Chimkent Area), 45) epigyne, ventral view (Alma-Ata Area, Kurty Distr.), 46) epigyne, ventral view (Alma-Ata Area, Ili Distr.), 47) epigyne after maceration, ventral view (Alma-Ata Area, Ili Distr.), 48) epigyne, dorsal view (Alma-Ata Area, Ili Distr.).



Xysticus

Figs. 49-51. *Xysticus cf. inaequalis* KULCZYNSKI; 49) ♀, epigyne, ventral view, 50) epigyne after maceration, ventral view, 51) epigyne, dorsal view.

Figs. 52-54. *Xysticus tristrami* (O.P.-CAMBRIDGE); 52) ♂-palp, ventral view, 53) palpal tibia, retrolateral view, 54) ♀, epigyne, ventral view.

Figs. 55-56. *Xysticus turlan* MARUSIK et LOGUNOV; 55) ♀, epigyne, ventral view, 56) epigyne, dorsal view.

Figs. 57-60. *Xysticus xysticiformis* (CAPORIACCO); 57) ♂-palp, ventral view, 58) ♂-palp, retrolateral view, 59) ♀, epigyne, ventral view, 60) epigyne, dorsal view.

Figs. 61-62. *Xysticus zonssteini* MARUSIK, ♀; 61) epigyne, ventral view, 62) epigyne, dorsal view.

Figs. 63-64. *Xysticus lindbergi* ROEWER, ♀; 63) epigyne, ventral view, 64) epigyne, dorsal view.

Figs. 65-67. *Xysticus soderbomi* SCHENKEL, ♀; 65) epigyne, ventral view, 66) epigyne after maceration, ventral view, 67) epigyne, dorsal view.