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ON THE SPIDERS FROM SAUR MT. RANGE, EASTERN KAZAKHSTAN (Arachnida: Araneae)

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Abstract: The spider (Araneae) fauna of the Saur Mt. Range of Kazakhstan is investigated, a list is given. The following taxa (Araneae) are described: Aphileta centrasiatica ESKOV n. sp., Lepthyphantes saurensis ESKOV n.sp., Minicia pallida ESKOV n.sp., Sauron ESKOV n. gen., Sauron fissocornis ESKOV n. sp., Silometopus asiaticus ESKOV n.sp., Tibiaster wunderlichi ESKOV n. sp., Trichoncus steppensis ESKOV n. sp., Walckenaeria kazakhstanica ESKOV n. sp., Zodarion nenilini ESKOV n. sp., Zelotes mikhailovi MARUSIK n. sp., Alopecosa akkolka MARUSIK n. sp., Alopecosa saurica MARUSIK n. sp., Evippa sibirica MARUSIK n. sp., Pardosa dzheminey MARUSIK n. sp., Pardosa nenilini MARUSIK n. sp., Pardosa pseudolapponica MARUSIK n. sp., Chalcoscirtus platnicki MARUSIK n. sp., Titanoeca eca MARUSIK n. sp., Titanoeca minuta MARUSIK n. sp.; Pardosa jeniseica ZYUZIN, 1991 is revised.

1. Introduction

Saur is an isolated latitudinally directed mountain range situated inb both,. the former USSR (Kazakhstan) and China (Xinjiang); its length is ca. 120km and its maximal altitude is 3816m. Both, short, high Saur and long, low Tarbagatai Mt. Ranges are usually designated as the one of the four main mountain systems in the eastern Middle Asia, together with Pamir-Alai, Tien-Shang and Dzhungar Alatau. Saur-Tarbagati Mt. System is separated from any mountains by extensive plains.
This region is very interesting from the zoogeographical view point. First, the humid climate of Saur sharply contrasts with arid climate of surrounding hemi-desert plains (all the numerous rivers taking a source at Saur mountains disappear in these hemi deserts). As a result this range is a single locality between Altai and Dzhungar Mts., separated by ca. 500km where a forest vegetation exists. Second, Saur is situated strictly between Middle Asia and South Siberian mountains. Hence a remarkable mixture of various zoogeographical elements may be anticipated in the Saur fauna: xeric (i.e. steppe and desert) and mesic (i.e. forest and meadow) ecological elements on the one hand, and of Siberian Ancient-Mediterranean (Mediterranean-Middle Asia) and Central Asia (Tibetian-Mongolian) regional elements on the other hand.
However, any data on the spider fauna of this region were absent up today. This paper basing on recent collectings is a pioneer investigation of such "blanck space" on the "arachnological map".

2. Material and investigated region

The paper is based mainly on the spider collection made by one of the authors (KE) in the following 5 points of Zaisan District of East Kazakhstan Area in May-June 1990 (see Map 1):
(1) Dzeminey River canyon in environs of Zaisan Town.
(2) Akkolka Valley, mainly in environs of Akkoin Village. The valley is situated between Saikan and Main Saur Ranges. Akkolka Spring is a temporary stream existing in summer only in its lower flow. The altitude of valley bottom is 1400-1500m.
(3) Karaungur River Valley, mainly in environs of Karaungur Village. Karaungur River is a right tributary of Kenderlyk River.
(4) Sarybulak River. Northern foothills of Saur Mountains, ca. 15km W of China-Russia frontier.
(5) Saikan Pass (altitude 1820m). Middle portion of Saikan Mt. Range forming a northernmost edge of Saur Mountains.

The above mentioned materials were added by the collectings of S.L. ZONSHTEIN, S.A. OVCHINNIKOV and V.A. TANASEVITCH in August 1989:

(6) Valley of Dzeminey River at its middle flow in Kek-Bulek Canyon.

The spider fauna was investigated in following biotopes:

1. Dry stony steppe. The background of the vegetation is formed by various species of Artemisia and Salsoleae, as well as by xerophilous graminea (e.g. Stipa); the presence of Reaumuria on sands and Caragana on rocks should be mentioned. The steppe is the most common landscape in Akkolka (2) and Sarybulak valleys (4), the only investigated landscape at Dzheminey Canyon (1), and present in Karaungur Valley (3).
2. The separate hygrophilous inclusions in the steppe landscape are small Carex swamps and wet meadows with Salix bushes along streams. Such biotopes exist at more or less horizontal sections of Akkolka (2), Karaungur (3), and Sarybulak (4) valleys.
3. Mountain larch forests. Sparse forests formed by Larix sibirica without any other tree species, resticted to northern mountain slopes at altitude 1500-2300m. A green moss layer in such forest is weakly developed. The forests were investigated at Saikan Pass (5) and in valley of middle Dzheminey (6).
4. Mountain meadows, coexisting with the above mentioned larch forests at the same altitude at northern slopes. Numerous species of flowers (e.g. Lilium martagon, Paeonia anomala, Trollius asiaticus) form the background of the vegetation; Rosa and Spiraea thikets should be mentioned. Such biotope was investigated at Saikan Pass (5) and in Karaungur Valley (3).
5. Valley deciduos forests, existing as ribbons along the river in Karaungur Valley (3). The forests are formed mainly by trees, Salix and Populus, as well as by sparse Betula, with a dense underwood of various bushes (e.g. Crategus, Lanicera). The presence of thick leaf-litter should be mentioned.

The material forming the base of the present contribution mainly belongs to the collection of the Zoological Museum of Moscow State University (ZMMU), some para- and non-types were given to the collection of J. WUNDERLICH (JW, Straubenhardt). The major part of Gnaphosid spiders were given to Dr. V.I. OVTCHARENKO (Zoological Institute, Leningrad) and still untreated; the last material is not listed in this paper.

3. Description of the new and little known taxa

Aphileta centrasiatica ESKOV sp. n. (Figs.23-24)

Material. Holotype ♀ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka Valley, small Carex swamp

along spring, 28.VI. 1990, K. ESKOV.

Derivatio nominis. The new species is named after the situation of its type locality in Central Asia.

Description. Total length (♀) 2.6. Carapace yellowish-grey, its length/width 0.98/0.7. Chelicerae with 3 promarginal teeth. Legs dark yellow, length of joints of leg I/IV 0.65/0.78+0.23/0.25+0.55/0.68+0.5/0.6+0.4/0.45; tibial spines 2/2/272, Tm I in 0.35, Tm IV absent. Abdomen dark grey, almost black. Female genitalia: figs.23-24.- ♂ unknown.

Diagnosis: The new species can be distinguished from its single congener, boreal trans-Holarctis A. misera (O. PICKARD-CAMBRIDGE) by the more widely separated receptacula as well as by the absence of a prolateral spine on Tibia I (cp. WIEHLE, 1956).

Lepthyphantes saurensis ESKOV sp. n. (figs.15-16)

Material. Holotype ♀ (ZMMU), Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mountain Range, Karaungur River (Basin of Kenderlyk River), floodland forest of Populus, 6.VI.1999 (K. ESKOV). Paratypes: 2♀ (ZMMU), same biotope, 18.-23.VI. 1990 (K. ESKOV); 1♀ (ZMMU), Karaungur River Valley, subalpine meadow, 1800m, 19.VI. 1990 (K. ESKOV).

Derivatio nominis. The new species is named after the situation of its type locality at saur Mt. Range.

Description. Total length of ♀ 2.38-2.90. Carapace yellow with dark grey medial spots and almost black edge, its legth/width in ♀ 1.03-1.08/0.80-0.83. Legs yellow, grey annulated, length of joints I/IV 1.38/1.30+0.28/0.28+1.25/1.05+1.25/1.08+0.85/0.73; tibia I-IV besides dorsal and lateral spines, with 3-2-1-1 ventral spines respectively, all metatarsi with a single spine. Abdomen dark grey with a white dorsal pattern. Female genetalia as in figs.15-16.- ♂ unknown.

Diagnosis (♀). By the shape of the epigyne the new species seems to be close to L. triramus CHAMBERLIN & IVIE, and can be distinguished by the wider scapus, as well as by the annulated leg joints (cp. CHAMBERLIN & IVIE, 1947).

Minicia pallida ESKOV sp. n., fig.14.

Material: Holotype ♀ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Karaungur River Valley, subalpine meadow, 1800m, 19.VI. 1990 (K. ESKOV).

Derivatio nominis. The new species is named after its pale coloration.

Description (♀). Total length 1.78. Carapace pale yellow with black spots surrounding eyes, its length/width 0.65/0.53. Chelicerae with 4 promarginal teeth. Legs pale yellow, length of joints of legs I/IV 0.45/0.53+0.20/0.20+0.35/0.40+0.28/0.38+0.20/0.23; dorsal tibial spines 1/1/1/1, tibia I and II with 2 ventral rows of robust spines; Tm I in 0.90, Tm IV present. Abdomen white without any pattern. Female genitalia fig.14. ♂ unknown.

Diagnosis (♀). By the shape of the epigyne the new species seems to be close to M. kirghizica TANASEVITCH from Tien-Shang Mts., Middle Asia, and M. alticola TANASEVITCH from Caucasus. M. pallida sp.n. may be distinguished by anteriorly narrowed medial plate of epigyne, as well as by pale coloured body with white colourous abdomen (cp. TANASEVITCH; 1989; 1990).

Sauron ESKOV, gen. n.

Type species: Sauron fissocornis ESKOV, sp. n.

Derivatio nominis. The new species is named after the personage of "The Fellowship of the Ring" by J.R.R. TOLKIEN.

Definition. Small, dark-coloured erigonines. Male carapace with noumerous rounded pits lined along radial furrows, its cephalic portion with the conical elevation surmounted by the two strong setae, both splitted terminally. Chelicerae unmodified. Tibial spines 1/1/1/1, Tm I in 0.80, Tm IV present. Abdomen unmodified. Palpal tibia with a single trichobothrium and two ectal outgrowths. Tegulum vertical. Suprategulum long, right and longitudinal, with a wide, partially membraneous suprategular apophysis. Embolic division simple, moderately thick embolus coiled as a ring. Epigyne protruded, with more or less posteriorly situated triangular medial plate. Vulva with long entrance ducts under large rounded receptacula.

Diagnosis. By the shepe of the male genitalia, as well as by the leg spinulation, the new genus clearly belongs to the Pelecopsis-group of genera of MILLIDGE (1977), and seems to be particularly closely related to Pelecopsis SIMON and Yakutopus ESKOV. Sauron gen.n. can be distinguished by the two ectal outgrowth of male palpal tibia, long and stright suprategulum, and produced epigyne; the shape of male cephalic elevation of the new genus provided with two terminally splitted horns seems to be unique.

Composition and distribution. Only the type species known from the eastern Kazakhstan.

Sauron fissocornis ESKOV, sp.n., figs. 1-8.

Material. Holotype ♂ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka Valley, leaf litter under Salix bushes, 25.VI. 1990 (K. ESKOV). Paratypes: 1♂2♀ (JW), 2♂12♀ (ZMMU) - together with holotype.

Derivatio nominis: From Latin fissus - splitted, and cornis - horn, according to shape of the male cephalic portion of the species.

Description. Total length of ♂/♀ 1.33-1.58/1.43-1.78. Carapace brownish-yellow with greyish-brown medial spot, its length/width 0.55-0.68/0.50-0.60 in male, 0.58-0.70/0.50-0.60 in female; ♂ carapace as in fig. 1-2. Chelicerae with 4 promarginal teeth. Legs brownish-yellow, medial portions of femora and tibiae greyish-brown; length of joints of legs I/IV 0.48/0.53+0.20/0.20+0.40/0.50+0.33/0.40+0.25/0.25 in male, 0.48/0.58+0.20/0.20+0.38/0.53+0.30/0.45+0.23/0.28 in female. Abdomen grey. ♂♀ genitalia: figs.3-8.

Silometopus asiaticus ESKOV, sp. n., figs.10-13.

Material. Holotype ♂ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka Valley, leaf litter under Salix bushes, 25.VI. 1990 (K. ESKOV). Paratypes: 1♂2♀ (JW), 7♂12♀ (ZMMU) - together with holotype.

Derivatio nominis. The new species is named after the situation of its type locality in Asia.

Description. Total length of ♂/♀ 1.25-1.43/1.38-1.63. Carapace yellowish-brown with dark grey medial spot and radial stripes, its length/width 0.58-0.63/0.48-0.53 in male, 0.63-0.70/0.50-0.58 in female; male carapace as in fig.10. Legs dark yellow, length of joints of legs I/IV 0.48/0.53+0.15/0.15+0.38/0.48+0.28/0.38+0.28/0.30 in male, 0.48/0.53+0.15/0.15+0.38/0.48+0.28/0.38+0.28/0.30 in female; tibial spines 1/1/1/1, Tm I in 0.73, Tm IV present. Abdomen grey. ♂♀ genitalia as in figs. 11-13.

Diagnosis By the shape of the male palpal tibia and embolic division, the new species is particularly close to S. uralensis TANASEVITCH and sibiricus ESKOV, both from Siberia. S. asiaticus can be distinguished by a conic cephalic elevation of male carapace, extremely long and laterally curved outgrowth of male palpal tibia, and trapeziform medial plate of epigyne (cp. TANASEVITCH, 1985; ESKOV 1989).

Tibiaster wunderlichi ESKOV, sp. n., figs. 19-22

Material. Holotype ♂ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Karaungur River (basin of Kenderlyk River), floodland forest of Populus, 18.-22.VI. 1990 (K. ESKOV). Paratypes: 1♀ (ZMMU) - together with holotype; 1♂2♀ (ZMMU) - Saur Mt. Range, Akkolka Valey, stony steppe, 27.VI. 1990 (K ESKOV).

Derivatio nominis. The new species is gladly named after the German arachnologist JÖRG WUNDERLICH.

Description. Total length of ♂/♀ 1.38-1.45/1.50-188. Carapace greyish-brown, its length/width 0.60-0.63/0.50/0.53 in male, 0.68-0.70/0.50-0.53 in female; ♂ carapace unmodified. Legs brownish-yellow, length of joints of legs I/IV 0.55/0.63+0.18/0.18+0.45/0.50+0.40/0.48+0.228/0.30 in male, 0.58/0.65+0.18/0.18+0.48/0.53+0.43/0.50+0.30/0.33 in female; tibial spines 2/2/1/1, Tm I in 0.53, Tm IV present. Chelicerae with 4 promarginal teeth. Abdomen dark grey, almost black. ♂♀ genitalia: figs. 19-22.

Diagnosis. The new species is clearly distinguished from its single congener, T. djanybekensis TANASEVITCH from western Kazakhstan by the presence of a dorsal row of teeth on the palpal tibia as well as by the presence of a trichobothrium on metatarsus IV (cp. TANASEVITCH, 1987).

Trichoncus steppensis ESKOV sp. n., figs.17-18

Material. Holotype ♀ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka Valley, dry stony steppe, 8.VI. 1990 (K. ESKOV).

Derivatio nominis. The new species is named after its biotope, the steppe.

Description (♀). Total length 1.95. Carapace greyish-yellow, its length/width 0.80/0.65. Legs dark yellow with dark tibia, length of joints of legs I/IV 0.65/0.8+0.23/0.23+0.58/0.68+0.48/0.58+0.40/0.43; tibial spines 1/1/1/1, longer than 2d of the joints, Tm I in 0.45, Tm IV absent. Abdomen grey, dorsally with strong protuded setae. ♀ genitalia: figs. 17-18; ♂ unknown.

Diagnosis. By the presence of strong protuded setae on abdomen the species clearly belongs to the species group I of DENIS (1965) and seems to be particularly close to monticola DENIS from Spain; steppensis can be distinguished by orthogonal (not triangular) medial septa of epigyne in lateral view (cp. DENIS, 1965).

Walckenaeria kazakhstanica ESKOV sp. n., figs. 25-26

Material. Holotype ♀ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan distr., Saur Mt. Range, Karaungur River (basin of Kenderlyk River), floodland forest of Populus, 18.-23.VI. 1990 (K. ESKOV). Paratype: 1♀ (ZMMU) - together with holotype.

Derivatio nominis. The new species is named after the situation of its type locality (Kazakhstan).

Description (♀). Total length 2.00-2.05. Carapace reddish-brown, its length/width 0.88-0.93-0.60-0.63. Legs pale orange, length of joints I/IV 0.65/0.68+0.20/0.20+0.58/0.63+0.45/0.55+0.30/0.33; tibial spines 2/2/1/1, Tm I in 0.43, Tm IV present, tarsal claws pectinate. Abdomen grey, genitalia: figs.25-26. ♂ unknown.

Diagnosis: By the shape of the female genitalia the new species seem to be closely related to the european-siberian nudipalpis (WESTRING) and obtusa (BLACKWALL), and can be distinguished by concave posterior edge of medial plate of the epigyne, as well as by the position of Tm I less than 0.5 (cp. WIEHLE, 1960).

Zodarion nenilini ESKOV, sp. n., figs. 27-29

Material. Holotype ♂ (ZMMU): Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka Valley, stony steppe, 26.VI. 1990 (K. ESKOV). Paratypes: 1♀ - together with holotype; 1♀ - Saur Mt. Range, Karaungur River (basin of Kenderlyk River), steppe, 18.-23.VI. 1990 (K. ESKOV).

Derivatio nominis. The new species is named after my late friend and colleague A. B. NENILIN.

Description. Total length of ♂/♀ 3.58/2.88-3.20. Carapace pale yellow with yellowish-brown spot and almost balck eye area, its length/width 1.50/1.28 in male, 1.13-1.45/0.9-1.08 in female. Sternum pale yellow, with numerous hairs. Legs yellow, without distinct spines. Abdomen ventrally dirty-white, dorsally coffe-coloured with a caudad longitudinal chain of four triangular dirty-white spots. ♂♀ genitalia: figs. 27-29.

Diagnosis. By the shape of male palpal tibia outgrowth the new species clearly belongs to the species-group comprising 5 Asiatic species: asiaticus TYSTCHENKO fromKazakhstan, continentalis ANDREEVA & TYSTCHENKO, bekuzini NENILIN, proszynskii NENILIN & FET- all from the Soviet Middle Asia, and chaoyangensis ZHU & ZHU from Manchuria, China. By the shape of ♂♀ genitalia, as well as by the body colouration nenilini is particularly close to Asiaticum, and can be distinguished by the bifurcated appendadge of the ♂ palpal tibia, and more wide and short aperture of the epigyne (cp. MARIKOVSKY & TYSTCHENKO, 1970).

Zelotes mikhailovi MARUSIK, sp.n. figs.30, 34-35, 41

Material: Holotype ♂ and paratype ♀ (ZMMU), Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Karaungur River (Kenderlyk River basin), dry stony steppe, 18-22.06.1990 (K. Yu. ESKOV)

Derivatio nominis: The new species is gladly named after my friend and colleague Kirill G. MIKHAILOV (ZMMU, Moscow).

Description (♂♀): Total length 5.0/5.5. Carapace: 2.35/2.80 long, 1.73/2.05 wide. Eye sizes and interdistances: AME 0.04/0.04, ALE 0.09/0.10, PME 0.06/0.07, PLE 0.08/0.09, AME-AME 0.09/0.09, AME-ALE 0.03/0.02, PME-PME 0.10/0.11, PME-PLE 0.07/0.09, ALE-PLE 0.10/0.09, MOQ 0.21/0.26 long, frontal width 0.17/0.21, back width 0.23/0.26. Femur II 1.53/1.1.71 long. Leg spination in male: IV: femur d.3, p.1 or 2, r.1, tibia p.2,r.4, v.2-2-2, metatarsus p.2ap., r.2, v.2-2-2; III: tibia p.3, r.2, v.2-2-2, metatarsus p.5, r.4, v.2. Carapace brown with black margins, female darker than male. Abdomen greyish in male and grey in female, ventrally lighter. Legs dark, with pale metatarsi and tarsi. Palp figs.30,34-35, epigyne fig.41.

Diagnosis: Z. mikhailovi sp.n. belongs to the puritanus group (subgroup sensu PLATNICK, 1983), which is represented in the Palaearctic by: Z.puritanus CHAMBERLIN (Alps,NE Siberia, and SW Siberia), Z. potanini SCHENKEL (South Siberia, North China and Japan), Z.gusakovskii CHARITONOV (Tajikistan), Z. keumjeungsanensis PAIK (Korean Peninsula) and new one, according to PLATNICK & SONG (1986) 3 other species belong to this group: Z.yutian PLATNICK et SONG, Z. hummeli SCHENKEL, Z. tsai PLATNICK et SONG. The new species is closely related to Z. potanini and Z. puritanus, which are sympatric (former in biotope, latter in Karaungur River Valley), from which it can be distinguished by the shape of tegular apophisis, embolar projection, direction of median apophisis and by the long and parallel lateral epigynal margins and very wide apical epigynal "pocket" (ridge) (see figs. 41-44).

Alopecosa akkolka MARUSIK, sp.n. figs.53-55

Material: Holotype ♀ (ZMMU) and paratype 1 ♀ (ZMMU), Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka River (basin of Kenderlyk River), dry stony steppe, 8.06.1990 (K. Y. ESKOV).

Derivatio nominis: The specific name is a noun in apposition after the type locality.

Description: Female. Total length 17.5 -22.0. Carapace: 9.5-10.5 long, 7.2-7.5 wide, brown with dark brown strips around median

groove, covered with whitish and black hairs. Ocular area whitish and covered with white hairs. Frontal eye row is equal to PME-PME row width. Sternum: 4.5 long, 3.3-3.5. Sternum, labium, maxillae, coxae and chelicerae black or dark-brown. Abdomen brownish-grey with undistinct pattern from medial-apical lanceolate spot and a series of transverse stripes. Abdomen ventrally: apical 3/4 black, basal 1/4 grey-yellowish. Legs light-brown. Chelicerae with 3 dents prolaterally and 3 retrolaterally. Epigyne (figs. 53-55) covered with dense black hairs, so females look like as immatures.- ♂ unknown.

Diagnosis: A. akkolka sp.n. looks like as a representative of Lycosa genus thank to its great size and habitats. It is somewhat similar to that of A. luteocuneata (SCHENKEL) and A.aerosa (SCHENKEL) from which can be easily separated by the greater size and different epigynal septum.

Alopecosa saurica MARUSIK sp.n. figs. 55-56

Material: Holotype ♀ (ZMMU), and paratypes 3 ♀ (1 ZMMU, 2 JW), Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Karaungur River (Kenderlik River basin), Populus forest in valley, 18-23.06.1990 (K.Yu.ESKOV).

Derivation nominis: The specific name is a noun in apposition after the type locality.

Description: Female. Total length 9.8-12.5. Carapace: 5.0-5.5 long, 3.8-4.0 wide., light-brown with two wide dark brown bands, marginal light-brown bands two time thiner than dark bands, light parts covered with whitish hairs, dark bands covered with red whitish and black hairs. Ocular area grey and covered with whitish hairs. PME-PME row is wider than frontal one. Sternum, labium, maxillae brown. Chelicerae dark-brown or black, with 3 dents prolaterally and 2 retrolaterally. Abdomen grey with indistinct pattern, lateral sides of dorsum with wide dark spots; ventrally yellow. Legs: coxae light-yellow, other segments yellow-grey-brown with darker half-rings and bands. Epigyne (figs. 55-56) covered with black and white hairs, septum: 0.43 wide, 0.26 long.- ♂ unknown.

Diagnosis: Epigyne of the A. saurica sp.n. is somewhat similar to those of A. schmidti (HAHN), A. mariae (DAHL), A. taeniopus (KULCZYNSKI) and A. aerosa (SCHENKEL) from which it can be easily distinguished by the shape of epigynal septum.

Evippa sibirica MARUSIK, sp.n. figs. 58-62

Material: Kazakhstan, East Kazakhstan area: Holotype ♂ and paratypes 7♂ & 7♀ (ZMMU), Saur Mt. Range, Akkolka River valley (Kenderlyk River basin), dry stony steppe, 5-9.06.1990 (K.Yu.ESKOV); paratypes: 7♂ and 7♀ (JW), same locality, 10-28.06.1990 (K.Yu.ESKOV); 1♂ (ZMMU), same locality, mountain grassy swamp, 6.06.1990); 5♂, 1♀ (ZMMU), Saur Mt. Range, Karaungur River Valley (Kenderlyk River basin), dry stony steppe, 18-28.06.1990 (K.Yu.ESKOV); 8♂ and 1♀ (ZMMU), environs of Zaisan Town, Djeminey Canyon, 2-7.06. 1990.

Derivatio nominis: The specific name is in appositon to area of distribution (NE Kazakhstan belongs to SW Siberia).

Description. Measurements: ♂/♀. Total length 5.1-6.3/6.0-8.5. Carapace: 2.5-3.5/ 2.9-4.0 long, 1.9-2.5/2.0-2.7 wide. Male. Carapace from dark-grey to grey-brown without pattern, sternum coloured as carapace. Abdomen mouse-grey dorsally, and orange-grey ventrally. Legs ochrous with indistinct ventral half-rings. Females colouration same as in males. Cephalic part of carapace is elavated in both sexes. Palp (figs. 58-61) with long embolus semicovered by tegulum, and big tegular apophisis-conductor, epigyne (fig. 62) with long septum and small basal part of the septum.

Diagnosis: New species can be easily distinguished from other Evippa species by the long both epigynal septum and embolus. E. sibirica sp.n. is related to Evippa sp. from NW Kazakhstan (Uralsk Area) (fig.3) which has longer septum.

Pardosa dzheminey MARUSIK, sp.n. fig. 88

Material: Holotype ♀ (ZMMU), Kazakhstan, East-Kazakhstat Area, Zaisan Distr., environs of Zaisan Town, Djeminey Pass, 2-4.06. 1990 (K.Yu.ESKOV).

Derivatio nominis: The specific name is a noun in apposition after the type locality.

Description: Female. Total length 7.6. Carapace: 3.2 long, 2.5 wide, brownish-grey with black margins and median yellow band, which is heart-like in the apical part, laterally near margins with some light-brown spots. Sternum light-brown, with light stripe apically. Abdomen grey, with lanceolate median-apical spot and series of small round spots. Abdomen ventrally witish. Coxae witish, legs pale-yellow with grey halfrings and stripes. Epigyne as in fig. 88, septum 0.71 long, 0.26 wide.- ♂ unknown.

Diagnosis: P. dzheminey sp.n. is related to P. ferruginea (L.KOCH) from which it can be distinguished by the longer apical and shorter basal parts of the septum.

Pardosa jeniseica ZYUZIN, 1991 figs. 64-65

Material: ♂ (ZMMU), Kazakhstan, East-Kazakhstan Area, Zaisan

Distr., Karaungur River valley (Kenderlyk River basin), valley Populus forest, 18-23.06.1990 (K.Yu.ESKOV)

Description: Male. Total length 6.9. Carapace: 3.8 long, 2.9 wide, brown-grey with thin light-brown median band, black ocular area, black margins and series of brown spots submarginally. Abdomen black, covered with whitish hairs, lanceolate spot distinct red-brown. Sternum brown, covered with whitish hairs. Labium brown-black. Maxillae and coxae yellow-grey. Legs: femora yellow-grey ventrally, brown-black dorsally with yellow half-rings, tibia light-brown with yellow rings, metatarsi and tarsi pale yellow. Tibia, metatarsi and tarsi on the legs I with pro- and retromarginal rows of dense and long hairs. Palp (figs.64-65) with long tegular apophysis.

Diagnosis: P. jeniseica belongs to the P. chionophila group (sensu ZYUZIN, 1979). This species can be distinguished from P. chionophila by the longer hairs on leg I (more than 4 diameters of tibia, while in latter species hairs are about 1 diameter), and also in having shorter both cymbium and tegular apophysis, different shape of terminal apophysis and epiconductor (Figs.64-76).

Distribution: Widespread Siberian species. Saur Mt. Range is southwesternmost point of distribution.

Pardosa nenilini MARUSIK, sp.n. figs. 68-71

Material: Holotype ♂ and paratypes 1♂ 9f (1♂, 4♀ ZMMU; 5♀ JW), Kazakhstan East-Kazakhstan Area, Zaisan Distr., Akkilka River valley (Kenderlyk River basin), grass swamp near spring, 9-10.06.1990 (K.Yu.ESKOV); 2♀, same locality and biotop, 27.06.1990 (K.Yu.ESKOV).

Derivatio nominis: This species is named after my late friend and colleague Andrei B. NENILIN.

Measurements: male/female. Total length 6.4-7.6/6.5-9.0. Carapace: 3.3-3.6/3.5-4.1 long, 2.6-2.8/2.5-3.1 wide.

Description: Male. Carapace brown, ocular area sowewhat darker than thorax but not black, clypeus lateral sides of cephalic part and median band (from apical part of the groove to basal end of carapace) yellow. Sides of thorax with light brown band of the same width as marginal brown one. Abdomen grey-brown with poor lanceolate spot or without it dorsally, and redish-brown ventrally. Sternum brown. Palps black with small brown spots. Chelicerae yellow with brown band. Coxae ventrally brown with yellow spot basally. Legs yellow: first pair lighter than other 3 pairs, femora I with dorsal dark band only, all other femora with ventral and dorsal bands, tibia and metatarsi light-brown. Palp as in figs.68-70.
Female. Colouration nearly the same as in male, but lighter. Carapace with yellow lateral bands, but not with light brown as in male. Abdomen with more distinct lanceolate spot. Legs darker, femur I with both lateral and dorsal brown bands. Epigyne (fig. 71) with weakly sclerotized septum. Septum: 0.56-0.64 long, 0.36-0.37 wide apically, 0.50 wide basally.

Diagnosis: The new species probably belongs to modica group. The female of P. nenilini sp.n is similar to those of P. podhorskii (KULCZYNSKI) (NE Siberia and NW America), and can be distingushid from the latter by wider epigynal septum, and characteristic lateral corners. Males of P. podhorskii are also similar to males of new species, but they can be separated by the shape of tegular and terminal apophyses. P. nenilini sp.n is related to Chinese species P. soccata YU et SONG probably, from which it can be easily distinguished by the shape of epigynal scape and terminal and tegular apophyses.

Pardosa pseudolapponica MARUSIK, sp.n. figs.

Material: Holotype ♀ and paratypes 1♂ (both in ZMMU) and 2♀ (ZMMU), Kazakhstan, East-Kazakhstan Area, environs of Zaisan Town, Djeminey Canyon, 2-4.06.1990 (K.Yu.ESKOV).

Measurements: male/female. Total length 7.5/7.3-7.9. Carapace: 3.7/3.6-3.7 long, 2.6/2.7-2.8 wide.

Description: Male. Carapace brown with blackish stripes and spots laterally, median band uniformly brown. Abdomen balck with indistinct reish-brown lanceolate spot dorsally, and black ventrally. Sternum, coxae dorasally, palps, chelicerae laterally black. Coxae ventrally grey. Legs yellow, femora ventro-basally greyish, and dorsally with dark-brown band and half-rings, tibia with dark stripe dorsally. Palp as in figs.72-75.
Female. Carapace somewhat lighter than in male, without light bands, median band basally (behind the groove) yellow brown. Abdomen grey-brown with somewhat lighter median band, lanceolate band undistinct. Abdomen light-brown ventrally. Sternum brown. Coxae dorsally near black. Legs darker than in male light-brown, femora and tibia with dark dorsal half-rings, femora with yellow stripes laterally. Epigyne (fig.76-77) with long narrow septum.

Diagnosis: P. pseudolapponica sp.n. is closely related to P. lapponica (TRORELL) and P. paralapponica SCHENKEL. Female of new species can be distingushed from those of the related species by the shape of epigynal scape and fovea, as well as by carapace pattern. Males of P. seudolapponica and that of P. lapponica can be separated by the shape of tegular and terminal apophysis. Males of the new species have shorter and thicker tegular apophysis. Females of P. pseudolapponica is similar to P. uncifera SCHENKEL also, from which it can be distinguished by the thiner epigynal septum and different shape of epigynal fovea.

Chalcoscirtus platnicki MARUSIK, sp.n. figs.91-92

Material: Holotype ♂, Kazakhstan, East-Kazakhstan Area, Zaisan Distr., foothils of Saur Mt. Range, Sarybulak River, steppe, 7.06.1990 (K.Yu.ESKOV).

Derivatio nominis: The new species is gladly named after the well known American arachnnologist Dr. N.I.PLATNICK.

Description: Male. Total length 2.47. Carapace: 1.26 long, 0.86, black-brown, ocular area black. Eye sizes and interdistances: AME 0.21, ALE 0.13, PME 0.03, PLE 0.10, ALE-PME 0.17, PME-PLE 0.11, eye I row 0.71, eye III row 0.89, ocular area length 0.46. Sternum dirty-brown. Abdomen black with dark-brown scutum dorsally, and grey ventrally. Chelicerae brown. Legs black, while coxae and metatarsi yellow-grey, and tarsi pale yellow. Palp (figs.91-92) with long tibial apophysis and very long spirally curved embolus. Female unknown.

Diagnosis: New species belongs to C. asiaticus group (sensu MARUSIK, 1991b), all species of which have long tibial apophysis and long spirally curved embolus. C. platnicki sp.n. can be easily distinguished from related species C. asiaticus CHARITONOV, C. minutus MARUSIK and C. paraansobicus MARUSIK by the largest size of embolus, down part of which tuchs the lowest loop of the seminal duct. In 3 former species down part of embolus tuchs the median loop only.

Distribution: Known from type locality only. Zaisan Distr. is north-easternmost point of distribution of C. ansobicus species group, which was knwon from Tajikistan (C.asiaticus, C.minutus) and Kirghizia & Dzhambul Area (C.paraansobicus) (MARUSIK, 1990).

Titanoeca eca MARUSIK, sp.n. figs.93-100

Material: Holotype ♂, and paratypes 2♂ & 4♀ (ZMMU), Kazakhstan, East-Kazakhstan Area, Zaisan Distr., Saur Mt. Range, Akkolka River Valley (Kenderlyk River basin), dry stony steppe, 5-27.06.1990 (K.Yu.ESKOV); paratype 1♂ (JW), same river basin, Karaungur River, dry stony steppe, 18-22.06.1990 (K.Yu.ESKOV); paratypes 3♀ (JW), same area and district, Saur Mt. Range, Saikan Pass, 1880 m, alpine meadow, 27.06.1990 (K.Yu.ESKOV).

Derivatio nominis: "Eca" is combination of letters, derived from 3 last letters of the generic name.

Description: Measurements (male/female). Total length 2.9-4.4/4.5-6.2. Carapace: 1.45-2.12/2.12-2.18 long, 0.82-1.50/1.38 wide (male carapace length and width are not variable, two forms large and small are present in one sample). Male. Carapace dirty-brown with dark margins and radial stripes. Abdomen black. Sternum and legs brown. Palp as in figs.93-96, two different shapes of palps are present within one sample: with cymbium 0.5 and 0.6 long.

Female. Colouration same as in male or lighter: carapace light brown, with brown stripes and margins, abdomen light-brown or black, ventrally darker. Epigyne as in figs.97-100, with unusual shape of receptacules.

Diagnosis: The new species belongs to the group I (quadriguttata) (sensu LEHTINEN, 1967). It is related to other siberian representatives T. schineri L.KOCH, T. sibirica L.KOCH and T. nivalis SIMON, but most closely related to T. asimilis SONG et ZHU, known from Shanxi, China. T. eca sp.n. can be easily separated from all siberian species by the shape of both male palp and epigyne, while from T. asimilis by the shape of tibial apophyses and receptacules.

Titanoeca minuta MARUSIK, sp.n. figs. 101-103

Material: Holotype ♀ (ZMMU), Kazakhstan, East Kazakhstan Area, environs of Zaisan Town, Djeminey Canyon, 2-4.06.1990 (K. Yu. ESKOV).

Description: Female. Total length 3.1. Carapace: 1.43 long, 0.99 wide, pale-brown with grey margins and radial stripes. Sternum darker, black-brown. Abdomen grey. Legs grey-yellowish with grey spots. Epigyne as in figs.101-103.

Diagnosis: T. minuta sp.n. can be easily recognized by the unique shape of spermateca. It belongs to the new species group probably.

4. Check list of the spiders collected on Saur Mt. Range, and their biotopic distribution

	Steppe				Larix forests		Alpine Meadows		Carex Salix swamps & bushes			Valley deciduous forests
Localities of collecting (Map 1)	1	2	3	4	6	5	3	5	2	3	4	3
	2	3	4	5	6	7	8	9	10	11	12	13

AGELENIDAE (1)
Agelena labyrinthica: 4: 1♀, 9:1♂

ARANEIDAE (9)
Aculepeira packardi: 3: 2♀, 6: 1♀*
Argiope bruennichi: 8: 1j
Araniella opistographa:13: 1♂,
Cyclosa oculata: 3: 5♂♀, 10: 1♂
Hypsosinga albovittata: 9: 1♂
H.pygmaea: 1: 1♀
Larinioides patagiatus: 2: 2♀, 10: 1♀, 12: 2♀
Mangora acalypha: 2: 2♀
Neoscona adianta: 10: 1♂

CLUBIONIDAE (6)
Cheiracanthium sp.: 8: 1♀, 9: 2♀
Clubiona diversa: 8: 1♀
C. genevensis: 3: 1♂
C. lutescens: 6: 1♂*, 13: 6♂♀
C. cf. dvoraki: 13:1♀
C. cf. maracandica: 10: 1♀

DICTYNIDAE (4)
Achaeodictyna consecuta: 8: 2♀, 9: 3♂♀
Brigittea latens: 2: 1♀
Dictyna arundinacea: 3: 5♀, 9: 3♂♀
Lathys puta?: 2: 1♀

ERESIDAE (1)
Eresus niger?: 3: 3♂, 9: 1♀

GNAPHOSIDAE (31)
Berlandina spasskyi: 3: 7♂♀, 4: 1♀
Callilepis nocturna: 2: 2♀, 3: 3♂♀, 8:1♀, 12: 2♀
Drassodes lapidosus: 11:1♀
D. cf. neglectus: 6: 2♀*
D.villosus: 11:1♀
D. cf. lapidosus: 3: 3♀, 11: 2♂♀
Drassodes sp. 1: 2: 1♂"
Gnaphosa denisi: 3: 6♂♀, 13: 2♂♀
G. muscorum: 6: 1♀*, 13: 6♂♀
G. cf. lapponum: 6: 3♂*
G. cf. lucifuga: 3: 1♂"
G. cf. sticta: 3: 2♂♀", 13: 1♀"
Gnaphosa sp. 1: 2: 1♀", 3: 1♀"
Gnaphosa sp. 2: 2: 1♀", 3: 1♀"
Haplodrassus signifer: 3: 4♂♀, 9: 1♀
Leptodrassus nemoralis: 3: 1♀, 5: 4♂♀
Micaria dives: 2: 1♀
M. pulicaria: 2: 2♂♀, 6: 1♀*, 13: 3♂♀
M. rossica: 3: 7♂♀, 4: 1♂
Poecilochroa variana: 13: 2♀
Synaphosus sp.: 6: 1♀*
Zelotes barkol?: 6: 1♀*
Zelotes declinans: 2: 1♂
Z.hui: 6: 1♂*
Z.mikhailovi sp.n.: 3: 1♀", 4: 1♂
Z.longipes: 3: 1♀
Z.pseudoapricorum: 2: 1♀
Z.potanini: 3: 4♂♀, 4: 3♂♀
Z.puritanus: 4: 1♂
Z.pygmaeus: 2: 1♀
Z.yutian: 13: 1♂

HAHNIIDAE (1)
Hahnia ononidum: 13: 27♂♀

LINYPHIIDAE (66)

Acartauchenius scurrilis: 2: 1♀
Agyneta conigera: 7: 1♀
A. fuscipalpis: 3: 7♂♀
A. similis: 6: 1♂*
A. pseudosaxatilis: 9: 1♀
Agyneta sp. 1: 6: 1♀*
Allomengea scopigera: 6: 3♂♀*
Aphileta centrasiatica: 11: 1♀
Arachosinella strepens: 13: 7♂♀
Araeoncus caucasicus: 13: 5♂♀
Bolyphantes index: 6: 2♂*
Centromerus aequalis: 6: 1♂*
Ceratinella wideri: 9: 1♀
Ceratinopsis romanus: 3:1♀
Collinsia caliginosa: 6: 2♂♀*
C. japonica: 1=: 4♂♀, 13: 28♂♀
Dicymbium nigrum: 6: 2♀*
Diplocephalus cristatus: 13: 1♀
Entelecara erythropus: 13: 11♂♀
Erigone atra: 2: 1♀, 9: 1♀
E. piechocki: 10: 4♀
Gonatium rubens: 7: 2♂♀
Gongylidium rufipes: 13: 1♀
Hilaira montigena: 6: 1♀*
Hypomma bituberculata: 9: 1♀
Latithorax thaleri: 7: 2♀
Lepthyphantes altus: 6: 1♂*, 13: 5♂♀
L. amotus: 8: 2♂♀, 9: 3♀
L. cornutus: 9: 1♀
L. improbulus: 6: 2♂♀*
L. nigriventris: 6: 16♂♀*
L. obscurus: 3: 1♀
L. saurensis sp.n.: 8: 1♀, 13: 3♀
L. tienshangensis: 6: 28♂♀*, 9: 1♂
Maso sundevalli: 13: 9♀
Micrargus herbigradus: 6: 1♂*
Microlinyphia impigra: 6: 1♀*
Microlinuphia pusilla: 9: 1♀, 10: 3♀
Microneta viaria: 13: 1♀
Minicia marginella: 9: 1♀
M. pallida sp.n.: 8: 1♀, 10: 1♀
Neriene clathrata: 6: 1♀*, 13: 1♀
N. emphana: 13: 5♀
Oedothorax retusus: 6: 16♂♀*, 11: 19♂♀, 13: 19♀
Oedothorax sp.: 13: 4♀
Panamomops mengei: 7: 1♀
Pelecopsis mengei: 6: 3♂♀*, 7: 1♀
Pelecopsis paralleloides: 10: 21♂♀
Porrhomma pallidum: 6: 1♀*
P. pygmaeum: 13: 10♀
Pseudocyba miracula: 13: 12♂♀
Sauron fissocornis sp.n.: 10: 18♂♀
Savignia frontata: 10: 3♀, 13: 1♀

Scotargus pilosus: 1♂*
Scotinotylus alpigenus: 7: 5♀
Silometopus asiaticus: 10: 23♂♀
Tibiaster wunderlichi: 3: 3♂♀, 13: 2♂♀
Trichoncus steppensis: 3: 1♀
Trichoncus vasconicus: 9: 1♀
Walckenaeria atrotibialis: 13: 1♀
W. kazakhstanica sp.n.: 13: 2♀
W. kochi: 13: 2♀
W. unicornis: 13: 1♀
W. wunderlichi: 3: 1♀
Zornella cultrigera: 6: 3♀*

LIOCRANIDAE (1)
Phrurolithus pullatus: 3: 1♀

LYCOSIDAE (15)
Arctosa cervina: 13: 1♀
Alopecosa akkolka sp.n.: 3: 2♀
A.cursor: 3: 1♀
A.pulverulenta: 6: 1♀*, 4♂♀
A.saurica sp.n.: 13: 4♀
A. cf. albostriata: 3: 1♂
Evippa sibirica sp.n.: 2: 9♂♀, 3: 35♂♀, 6: 2♂♀, 10: 1♂
Pardosa agrestis: 2: 1♀, 10: 14♂♀, 12: 3♂♀
P. dzheminey sp.n.: 2: 1♀
P. fulvipes: 6: 1♂*
P. jeniseica: 13: 1♂
P. cf. lapponica: 6: 5♂♀*
P. nenilini sp.n.: 10: 13♂♀
P.pseudolapponica sp.n.: 2: 4♂♀
P. thaleri: 2: 1♂, 3: 3♂♀, 6: 3♂♀*, 9: 3♂♀, 13: 2♂♀
Pardosa sp.1: 6: 1♂*
Pirata hygrophilus: 6: 2♀*
Trochosa terricola: 13: 1♀

OXYOPIDAE (1)
Oxyopes ramosus?:3: 1♀, 13: 1♀

PHILODROMIDAE (9)
Philodromus cespitum: 1=: 6♂♀
P. emarginatus: 2: 1♀
P. histro: 2: 1♂, 10: 1♀
Thanatus arenarius
T. coloradensis: 2: 1♂, 3: 6♂♀, 4: 2♂, 9: 1♂, 13: 3♂♀
T. vulgaris: 5: 1♀, 13: 1♂
Thanatus sp. 1: 3: 1♀
Thanatus sp. 2: 3: 1♀
Tibellus maritimus: 9: 2♀

SALTICIDAE (14)
Aelurillus v-insignitus: 2: 1♂
Chalcoscirtus platnicki sp.n.: 5: 1♂
C. tanasevichi: 2: 2♀, 3: 6♂♀, 9: 1♀
Dendryphantes sp.: 3: 1♀

Evarcha cf. laetabunda: 8: 2♀
Euophrys aequipes: 8: 1♀
E. cf. frontalis: 6: 1♂*
E. petrensis: 2: 1♀
Heliophanus auratus: 2: 1♀
H. patagiatus: 2: 13♂♀, 12: 1♀, 13: 5♂♀
Phlegra fasciata: 2: 1♂
P. fuscipes: 4: 1♂
Philaeus chrysops: 2: 6♂♀, 8: 2♀
Yllenus hamifer: 3: 7♂♀, 5: 2♀

THERIDIIDAE (14)
Arctachaea nordica: 8: 2♀
Crustulina sticta: 2: 1♀, 4: 1♀
Dipoena torva?: 10: 1♀
D. tristis: 3: 1♂, 10: 1♀
Enoplognatha serratosignata: 6: 2♀*
Latrodectus tredecimguttatus: 2: 3j
Robertus arundineti: 2: 1♀, 6: 1♀, 13: 1♀
Steatoda albomaculata: 3: 11♂♀, 5: 3♀
S. castanea: 2: 1♀
S. dahli: 2: 1♀
S. phalerata: 2: 1♂, 3: 1♀, 9: 1♀
Theridion impressum: 3: 6♂♀,6: 1♀*, 8: 5♀, 9: 13♂♀, 10: 4♂♀
T. petraeum: 5: 1♀, 8: 4♂♀, 9: 1♀
T. simile: 9: 1♀

THOMISIDAE (16)
Diaea suspiciosa: 13: 1♀
Heriaeus horridus: 2: 2♂, 3: 1♀
Ozyptila lugubris: 3: 5♀j
O. praticola: 10: 1♀
O. pseudoblitea: 9: 1♀
O. rauda: 9: 2♀
Pistius undulatus: 2: 1♂
Synaema utotchkini: 5: 1♂
Thomisus onustus: 13: 1♂
Xysaticus audax: 9: 1♂
X. bifasciatus: 9: 1♂
X. bonneti: 6: 5♀*
X. cristatus: 3: 1♂
X. dzhungaricus: 10: 5♂♀, 13: 2♂♀
X. ninnii: 5: 1♂
X. cf. marmoratus: 2: 1♀

TITANOECIDAE (2)
Titanoeca eca sp.n.: 3: 7♂♀, 4: 1♂, 9: 3♀
T. minuta sp.n.: 2: 1♀

ULOBORIDAE (1)
Uloborus walckenaerius: 2: 1♀

ZODARIIDAE (1)
Zodarion nenilini sp.n.: 3: 2♂♀, 4: 1♀

ZORIDAE (1)
Zora sp.: 13: 2♀

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* - specimens collected by A.V.TANASEVICH in 1989
" - specimens are in ZIL, not reexamined.

5. Geographical distribution of the spiders listed from Saur

Acartauchenius scurrilis (O. PICKARD-CAMBRIDGE) - European-Middle Asian range,
Agyneta conigera (O. PICKARD-CAMBRIDGE) - European-Siberian range,
Agyneta fuscipalpis (C. KOCH) - European-Middle Asian range,
Agyneta pseudosaxatilis TANASEVITCH - Siberian range (ESKOV 1988),
Agyneta similis KULCZYNSKI - Siberian-Scandinavian range,
Agyneta sp. - seems to be known only from the studied locality,
Allomengea scopigera (GRUBE) - trans-Holarctic range,
Aphileta centrasiatica sp. n. - known only from the type locality,
Arachosinella strepens DENIS - previously known only from mountains of Middle Asia: Hindukush (Afganistan) and North Tien-Shang (former USSR) (TANASEVITCH, 1989),
Araeoncus caucasicus TANASEVITCH - previously known the Caucasus only,
Bolyphantes index (THOREL) - European-Siberian range,
Centromerus aequalis (C. KOCH) - European range,
Ceratinella wideri (THORELL) - European-Siberian range,
Ceratinopsis romanus (O. PICKARD-CAMBRIDGE) - trans-Palearctic range,
Collinsia caliginosa (L. KOCH) - previously only known from Siberia and the high altitudes in Pamir Mts. in the Soviet Middle Asia (ESKOV, 1990),
Collinsia japonica (Oi) - Japan, the Soviet Far East, and Himalaya (ESKOV, 1990),
Dicymbium nigrum (BLACKWALL) - European-Middle Asian range,
Diplocephalus cristatus - European range,
Entelecara erythropus (WESTRING) - European range; the record of this species from Siberia (ESKOV, 1988) is erraneous,
Erigone atra BLACKWALL - trans-Palearctic range,
Erigone piechocki HEIMER - previously known from the mountains of western Mongolia only (HEIMER, 1987),
Gonatium rubens (BLACKWALL) - European-Siberian range,
Gongylidium rufipes (SUNDEVALL) - European range,
Hilaira montigena montigena (L. KOCH) - mountains of southern Palearctic from the Alps to North Tien-Shang (ESKOV, 1987),
Hypomma bituberculata (WIDER) - trans-Palearctic range,
Latithorax thaleri ESKOV - Siberian range (ESKOV, 1988),
Lepthyphantes altus TANASEVITCH - previously known from North Tien-Shang Mts. in the Soviet Middle Asia only (TANASEVITCH, 1989),
Lepthyphantes amotus TANASEVITCH - previously known from high altitudes of the Caucasus (TANASEVITCH, 1990),
Lepthyphantes cornutus SCHENKEL - European range,
Lepthyphantes improbulus SIMON - mountains of southern Europa: Pyrenees, Apenines, Alps, Caucasus (TANASEVITCH, 1990),
Lepthyphantes obscurus (BLACKWALL - European-Siberian range,
Lepthyphantes saurensis sp. n. - known from the type locality only,
Lepthyphantes tienshangensis TANASEVITCH - previously known from Tien-Shang Mts. in the Soviet Middle Asia (TANASEVITCH, 1989),
Maso sundevalli (WESTRING) - trans-Holarctis range,
Metopobactrus prominulus (O. PICKARD-CAMBRIDGE) - European range,
Micrargus herbigradus (BLACKWALL) - European-Siberian range,
Microlinyphia impigra (O. PICKARD-CAMBRIDGE) - trans-Holarctic range,
Microlinyphia pusilla (sundevall) - trans-Holarctic range,
Microneta viaria (BLACKWALL) - trans-Holarctic range,
Minicia marginella (WIDER) - European-Siberian range,
Minicia pallida sp.n. - known from the type locality only,
Neriene clathrata (SUNDEVALL) - trans-Holarctic range,
Neriene emphana (WALCKENAER) - trans-Palearctic range,
Oedothorax retusus WESTRING - Eurupean-Siberian range,
Oedothorax sp. - known from thze studied locality only,
Panamomops mengei SIMON - European range,
Pelecopsis mengei (SIMON) - European-Siberian range,
Pelecopsis paralelloides TANASEVITCH - previously known from the Kopet-Dag Mt. Range from the Soviet Middle Asia only (TANASEVITCH, 1989),
Porrhomma pallidum JACKSON - European-Siberian range,
Porrhomma pygmaeum (BLACKWALL) - European-Siberian range,
Pseudocyba miracula TANASEVITCH - Siberian range (ESKOV, 1989),
Sauron fissocornis gen.n.sp.n. - known from the type locality only,
Savignia frontata (BLACKWALL) - European-Siberian range,
Scotargus pilosus SIMON - European-Middle Asian range,
Scotonitylus alpigenus (L. KOCH - European-Siberian range,
Silometopus asiaticus sp. n. - known from the type locality only,
Tibiaster wunderlichi sp.n. - known from the type locality only,
Trichoncus steppensis sp.n. - known from the type locality only,
Trichoncus vasconicus DENIS - European range,
Walckenaeria atrotibialis (O. PICKARD-CAMBRIDGE) - trans-Holarctic range,
Walckenaeria kazakhstanica sp.n. - known from the type locality only,
Walckenaeria kochi (O. PICKARD-CAMBRIDGE) - European-Siberian range,
Walckenaeria unicornis (O. PICKARD-CAMBRIDGE) - European-Siberian range,
Walckenaeria wunderlichi TANASEVITCH - previously known from the Soviet Middle Asia only (TANASEVITCH, 1989),
Zornella cultrigera (L. KOCH) - boreal trans-Holarctic range,
Zodarion nenilini sp.n. - known from the type locality only.

Agelena labyrinthica (CLERCK) - transpalearctic range.
Aculepeira packardi (THORELL) - circumholarctic range.
Argipe bruennichi (SCOPOLI) - transpalarctic disjunctive (in Siberia) range, north-easternmost point of distribution in Euro-Middle Asian part of the range.
Araniella opostographa (KULCZYNSKI)- European-Middle-Asian range, esternmost point of distribution.
Cyclosa oculata (WALCKENAER)- European-Middle-Siberian range.
Hypsosinga albovittata (WESTRING) - transpalearctic range.
H.pygmaea (SUNDEVALL) - circumholarctic range.
Larinioides patagiatus (CLERCK) - circumholarctic range.
Mangora acalypha (WALCKENAER) - European-Middle-Asian range, northeasternmost of distribution.
Neoscona adiantum (WALCKENAER) - transpalaeractic range.
Cheiracanthium sp.
Clubiona diversa O. PICKARD-CAMBRIDGE - transpalearctic range.
Clubiona genevensis L. KOCH - from Europe east to Tuva and China (MIKHAILOV, personal communication).
C. lutescens WESTRING -whole Palearctic and Pacific coast in North America (DONDALE, REDNER, 1982).
Clubiona sp. (cf. dvoraki) - is is a new species which is distributed in South West Siberia: Tuva and Kazakhstan Area (MIKHAILOV, personal communication).
Clubiona sp. (cf. marcandica) - it is a new species (MIKHAILOV, personal communication).
Achaeodictyna consecuta (O.P.-CAMBRIDGE) - East-Palearctic range.
Brigittea latens (FABRICIUS) - European-Middle-Asian range, north-easternmost point of distributiopn.
Dictyna arundinacea (LINNAEUS) - circumholarctic range.
Lathys puta (O.P.-CAMBRIDGE) ? - transpalearctic range.
Eresus niger (PETAGNA) ? - transpaleractic range.
Berlandina spasskyi PONOMARYOV? - Middle-Asian range (from Karakalpakia (OVTSHARENKO,1982) east to Saur Mt. Range, which is north-easternmost point of distribution.
Callilepis nocturna (LINNAEUS) - transpalearctic range.
Drassodes lapidosus (WALCKENAER) - transpaleractic range.
D.villosus (THORELL) - transpalearctic range.
D. cf. lapidosus.
D. cf. neglectus KEYSERLING - it is closely related to neglectus but belongs to a different and probably new species.
Drassodes sp. 1.
Gnaphosa denisi (SCHENKEL) - South-West- Siberian range (including China), first record in the USSR, northwesternmost point of distribution.
G.muscorum (L.KOCH) - circumholarctic range (OVTSHARENKO, MARUSIK, 1988),
G. cf. lapponum - this species is related to the European lapponum and belongs probably to a new species.
G. cf. lucifuga - this species is somewhat similar to lucifuga and belongs probably to a new species.
G. cf. sticta - it is similar to the transpalearctic sticta and belongs probably to a new species.
Gnaphosa sp. 1.
Gnaphosa sp. 2.
Haplodrassus signifer (C.L.KOCH) - circumholarctic range.

Leptodrassus nemoralis SPASSY (figs.45-47) - from East Ukrain (OVTSHARENKO, 1982) to Saur Mt. Range, which is north-easternmost point of distribution.
Micaria dives (LUCAS) - European-Middle Asian range, Saur Mt. range is easternmost point of distribution.
Micaria pulicaria (SUNDEVALL) - circumholarctic range.
Micaria rossica THORELL - circumholarctic range.
Poecilochroa variana (C.L.KOCH) - transpalearctic ? range (according to published records, see OVTSHARENKO, 1982. All specimens from Soviet Far East belong to different species, so Saur Mt. Range is easternmost point of distribution probably).
Synaphosus sp. - East Kazakhstan Area is nothernmost point of distribution of Synaphosus in Asia.
Zelotes barkol PLATNICK & SONG ? - was known from Xinjiang, China (PLATNICK, SONG, 1986), Mongolia (OVTSHARENKO, OYUUNZHARGAL, 1988) and Tuva (MARUSIK, LOGUNOV, in press), Saur Mt. Range is the westernmost point of distribution.
Zelotes declinans (KULCZYNSKI) (figs.48-50) - Central-European-West-Siberian range, Zaisan district is north-easternmost record.
Z.hui PLATNICK et SONG - East Middle Asia (Xinjiang (PLATNICK, SONG, 1986) and Saur Mt. Range only, which is norternmost point of distribution and first in the USSR.
Z.mikhailovi sp.n - type locality only.
Z.longipes (L.KOCH) - transpalearctic range.
Z.pseudoapricorum SCHENKEL - only two records: Gansu,China (PLATNICK, SONG, 1986) and Saur Mt. Range, which is the north-westernmost point of distribution and first in the USSR.
Z.potanini SCHENKEL (figs.32,37-38,42-43) - South-Siberian range (including Mongolia, North China and Japan), westernmost record.
Z.puritanus CHAMBERLIN (figs.33,39-40,44) - holarctic disjunctive (in West Europe, and from Ukrain to SW Siberia) range, south-westernmost point in Siberia.
Z.pygmaeus MILLER (fig.52) - Central-European-SW-Siberian range, first record in the USSR and easternmost point of distribution.
Z.yutian PLATNICK et SONG - two records only: Xinjiang, China (PLATNICK, SONG, 1986) and Saur Mt. Range, which is northernmost point of distribution and first record in the USSR.
Hahnia ononidum SIMON - transpalearctic range (records from North America correspond to H.inornata).
Arctosa cervina SCHENKEL (fig.57) - eastpalearctic range (China and Saur Mt. Range, which is north-westernmost point of distribution), first record in the USSR.
Alopecosa akkolka sp.n. - type locality only.
A.cursor (HAHN) - European-Middle-Asian range, north-easternmost point of distribution. In USSR was known from Uzbekistan (CHARITONOV, 1969), Azerbaijan (DUNIN, 1984) and Crimea (personal data).
A.pulverulenta (CLERCK) - transpalearctic range.
A.saurica sp.n. - type locality only.
A. cf. albostriata - this species belongs to one of the species described by SCHENKEL (1926, 1953, 1963) from China.
Evippa sibirica sp.n. - type locality only.
Pardosa agrestis (WESTRING) - European-West-Siberian range, easternmost record?.
P.dzheminey sp.n. - type locality only.
P. fulvipes (COLLET) ? - European-West Siberian range?, Saur Mt.

Range is easternmost point of distribution.
P.jeniseica ZYUZIN (figs.64-65) - Siberan range, southwesternmost point of distribution.
P.nenilini sp.n. - type locality only.
P.pseudolapponica sp.n. - type locality only.
P.thaleri BUCHAR ? (figs.89-90) - from Nepal north to Saur Mt. Range, which is the northernmost record.
P. sp. - a single male specimen belongs to a new species.
Pirata hygrophilus THORELL - European-Middle Siberian range. From Siberia, Irkutsk Area it was recorded by IZMAILOVA (1989). Saur Mt. Range is the southernmost point of distribution in Asia.
Trochosa terricola THORELL - transpalearctic range.
Oxyopes ramosus (PANZER) ? - circumholarctic range.
Philodromus cespitum (WALCENAER) - circumholarctic range.
P.emarginatus (SCHRANK) - transpalearctic range.
P.histrio (LATREILLE) - circumholarctic range.
Thanatus arenarius THORELL - European-West-Siberian range, easternmost record.
T.coloradensis KEYSERLING - North America, Central Europe and West Siberia, early was recorded in USSR as T.alpinus KULCZYNSKI.
T.vulgaris SIMON - circumholarctic range.
Thanatus sp. 1.
Thanatus sp. 2.
Tibellus maritimus (MENGE) - circumholarctic range.
Aelurillus v-insignitus (CLERCK) - transpalearctic range.
Chalcoscirtus platnicki sp.n. - type locality only.
C.tanasevichi MARUSIK - East Kazakhstan (MARUSIIK, 1991a), Zaisan District is north-easternmost point of distribution.
Dendryphantes sp. - it is a new species, which will be described by LOGUNOV from Mongolia, Tuva (LOGUNOV, personal information) and Saur Mt. Range (westernmost point of distribution).
Evarcha cf. laetabunda (C.L.KOCH) - it is a new species with Siberian range (LOGUNOV, personal communication).
Euophrys aequipes (O.P.-CAMBRIDGE) - European-West-Siberian range.
E. cf. frontalis - it is a new species widely distributed in Siberia: from Kolyma River to the East, west to Tuva and Saur Mt. Range.
E.petrensis C.L.KOCH - European-West-Siberian range, easternmost record.
Heliophanus auratus C.L.KOCH - European-Middle-Siberian range.
H.patagiatus THORELL - transpalearctic range.
Phlegra fasciata (HAHN) - transpalearctic range.
P.fuscipes KULCZYNSKI - European-Middle-Siberan range.
Philaeus chrysops (PODA) - transpalearctic range.
Yllenus hamifer SIMON - South-West Siberia (including Xinjiang, China and Mongolia (PROSZYNSKI, 1990)), north-westernmost record.
Arctachaea nordica (CHAMBERLIN et IVIE) - from South Ural east to NW America.
Crustulina sticta (O.P.-CAMBRIDGE) - transpalearctic range.
Dipoena torva (THORELL) ? - European-West-siberian range, easternmost record.
D.tristis (HAHN) - European-West-Siberian range, easternmost point of distribution.
Enoplognatha serratosignata L. KOCH - Siberian range, southwesternmost record.

Latrodectus tredecimguttatus (ROSSI) - European-Middle-Asian range, north-easternmost record.
Steatoda albomaculata (De GEER) - circumholarctic range.
S.castanea (CLERCK) - transpalearctic range.
S.dahli (NOSEK) - from Israel north-aest to Saur Mt. Range, which is north-easternmost point of distribution. In USSR was known from Azerbaijan and West Uzbekistan (MARUSIK, 1989).
S.phalerata (PANZER) - transpalearctic range.
Robertus arundineti (O.P.-CAMBRIDGE) - European-Middle-Asian range (ESKOV, 1986), East-Kazakhstan area is north-westernmost point of distribution.
Theridion impressum L.KOCH - transpalearctic-NW-American range.
T.petraeum L.KOCH - transpalearctic range.
T.simile C.L.KOCH - Europe, Middle Asia and North America, easternmost record in Palearctic.
Diaea suspiciosa O.P.-CAMBRIDGE - East Middle Asia (Xinjiang, Tajikistan, Kirghizia and East Kazakhstan (MARUSIK, LOGUNOV, 1990), north-easternmost point of distribution.
Heriaeus horridus TYSHCHENKO - North Middle Asia, easternmost record.
Ozyptila lugubris (KRONEBERG) - Middle Asia, north-westernmost point of distribution. SCHENKEL's record from China (1936) refers to a different species probably.
O.praticola (C.L.KOCH) - transpalearctic range with two records in America: Pacific and Atlantic coasts (DONDALE, REDNER, 1975)
O.pseudoblitea SIMON - east-palearctic range, from Turgay Area east to Pekin.
O.rauda SIMON- - European-Middle-Siberian range. SCHENKEL's (1936) record from China refers to O. utotchkini MARUSIK.
Pistius undulatus KARSCH - eastpalearctic range, from Kurgan Area east to Japan (LOGUNOV, 1990).
Synaema utotchkini MARUSIK et LOGUNOV - East Middle Asia, north-westernmost point of distribution.
Thomisus onustus WALCKENAER - transpalearctic range.
Xysaticus audax (SCHRANK) - transpalearctic range.
X.bifasciatus (C.L.KOCH) - European-Middle-Siberian range.
X.cristatus (CLERCK) - European-Middle-Siberian range.
X.dzhungaricus TYSHCHENKO - Middle Asian range, north-easternmost point of distribution.
X.ninii THORELL - Central-European-West-Siberian range, easternmost point of distribution.
X. cf. marmoratus KULCZYNSKI.
Titanoeca eca sp.n. - type locality only.
T.minuta sp.n. - type locality only.
Uloborus walckenaerius LATREILLE - transpalearctic range.
Zora sp.

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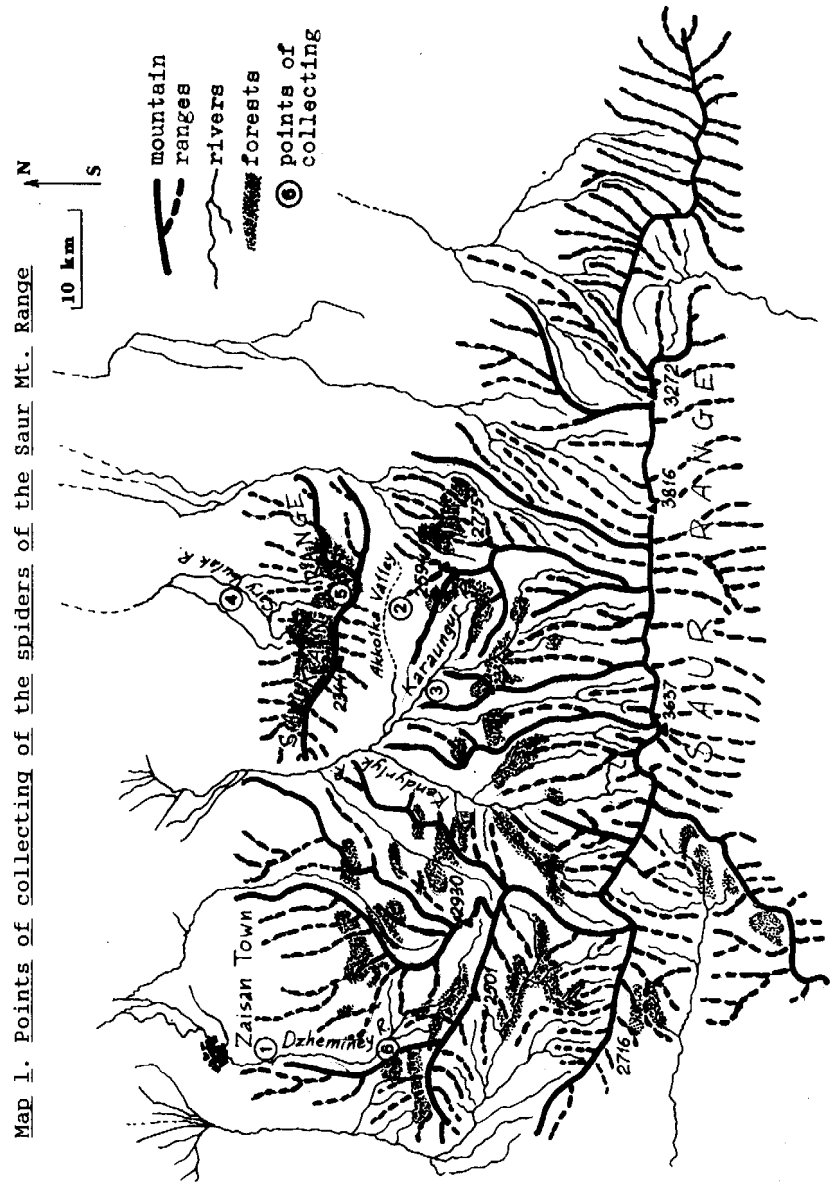
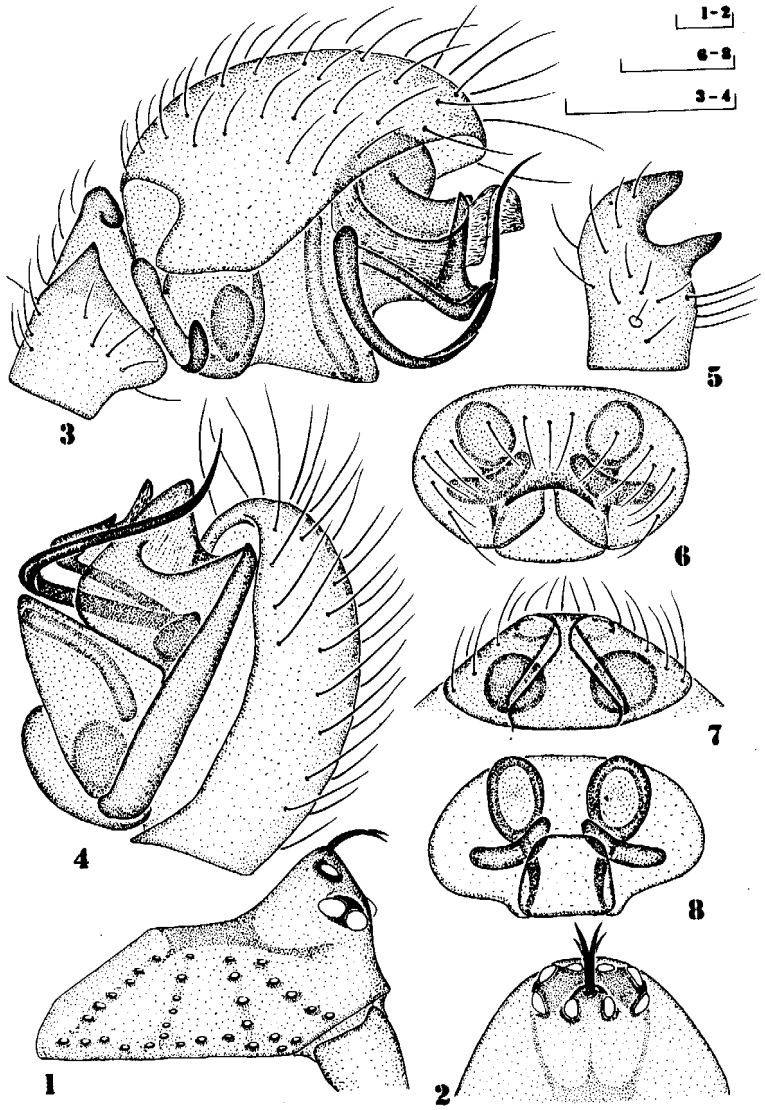
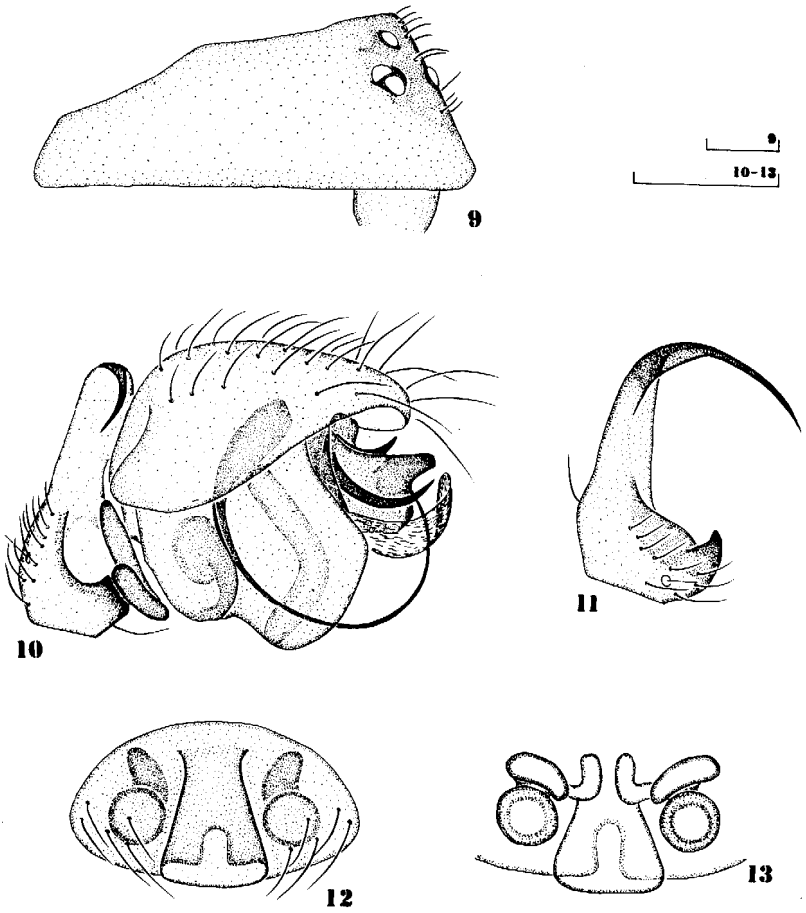


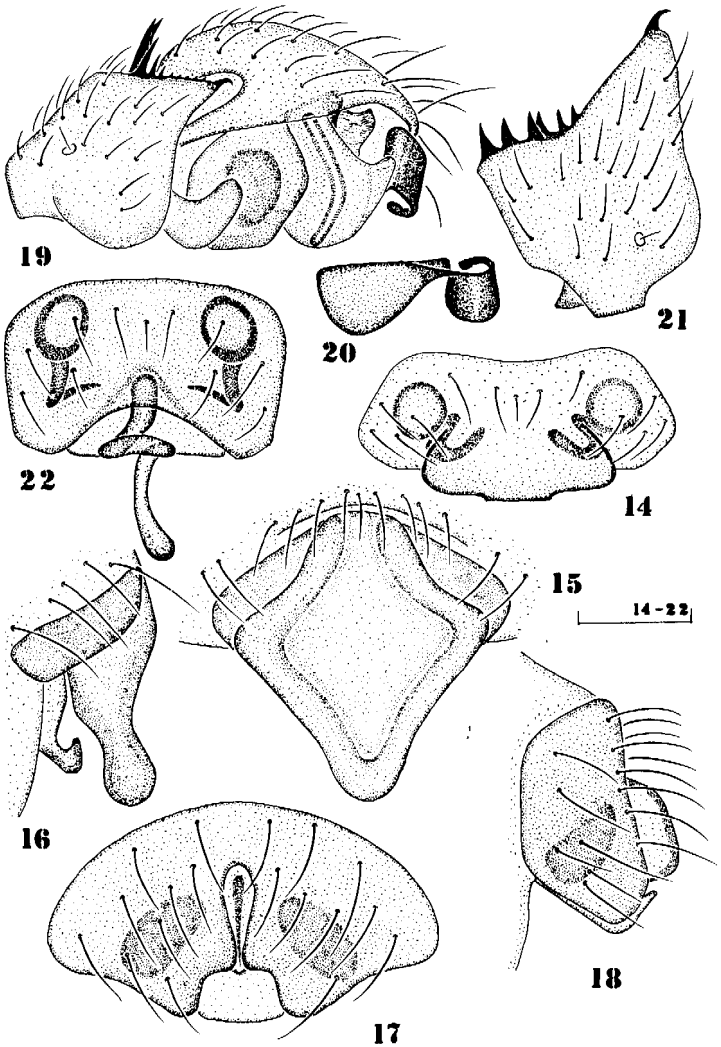
Map 1. Points of collecting of the spiders of the Saur Mt. Range



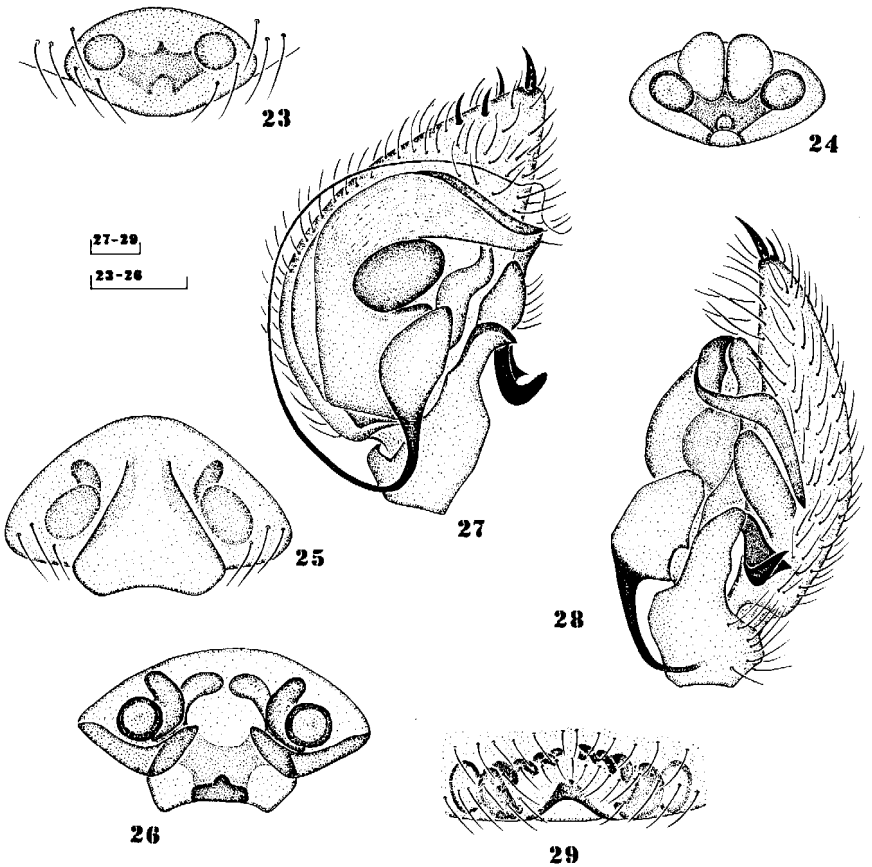
Figs.1-8: Sauron fissocornis gen.n.sp.n. 1-2) ♂-carapac, lateral and dorsal view; 3-4) ♂-palp, ectal and ventromesal view; 5) ♂ palpal tibia, dorsal view; 6-7) ♀, epigyne, frontal and posterior view; 8) vulva.- Scale = 0.1mm.



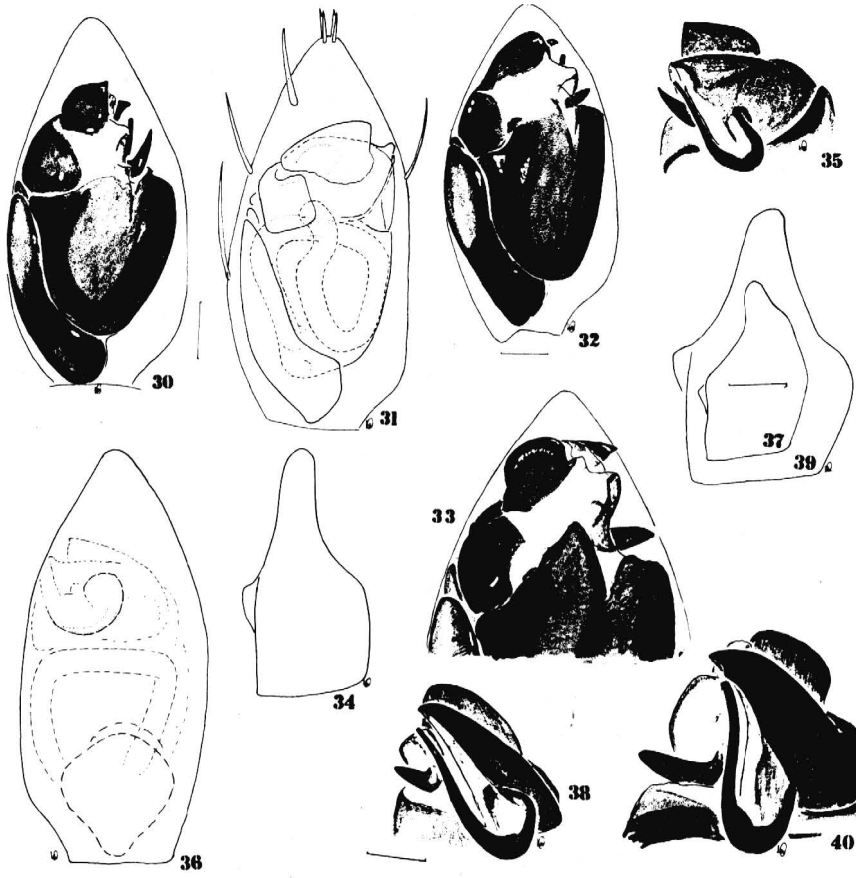
Figs.9-13: Silometopus asiaticus sp.n. 9) ♂-carapace, lateral view; 10) ♂-palp, ectal view; 11-12) ♂ palpal tibia, dorsal view; 12) ♀, epigyne and vula.- Scale = 0.1mm.



Figs.14-22: Minicia pallida sp.n. (14), Lepthyphantes saurensis sp.n. (15-16), Trichoncus steppensis sp.n. (17-18), Tibiaster wunderlichi sp.n. (19-22); 14,15,17,22: epigyne, frontal view; 16,18: epigyne, lateral view; 19: ♂-palp, ectal view; 20: embolic division, ventral view; 21: ♂ palpal tibia, dorsal view. Scale = 0.1mm.

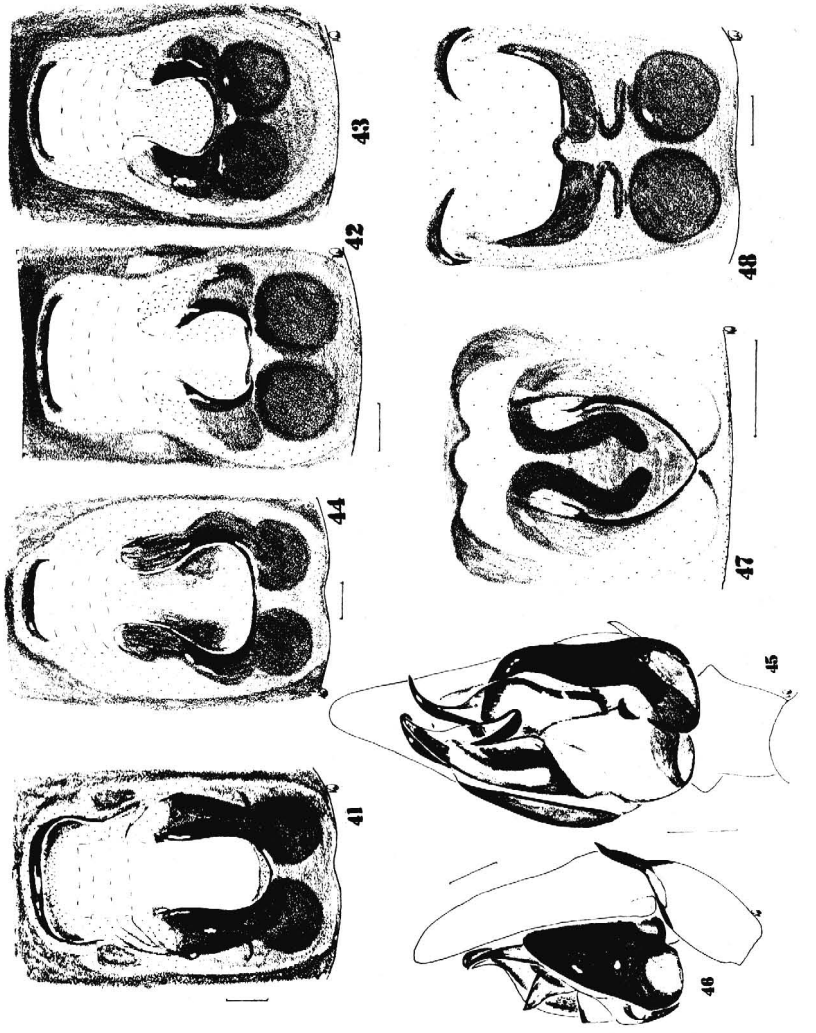


Figs.23-29: Aphileta centrasiatica sp.n. (23-24), Walckenaeria kazakhstanica sp.n. (25-26), Zodarion nenilini sp.n. (27-29); 23,25, 29: epigyne; 24,26: vulva; 28: ♂-palp, ventral view; 29: ♂-palp, ectal view.- Scale = 0.1mm.



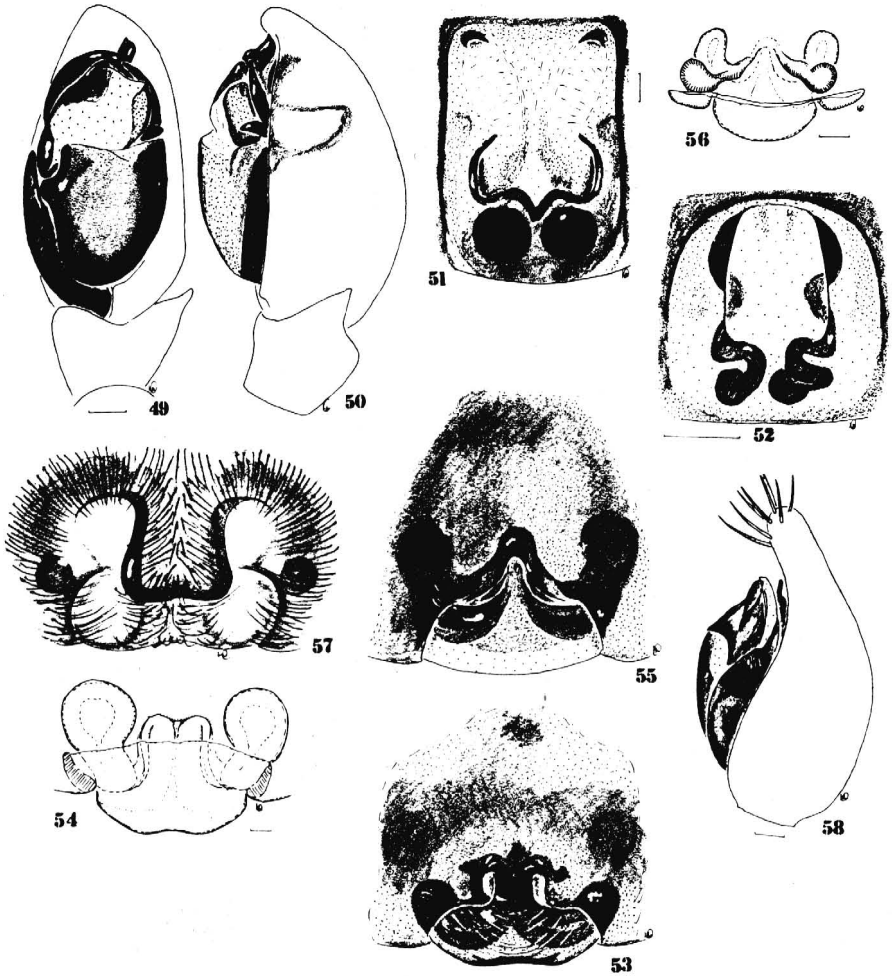
Figs.30-33: ♂-palp of Zelotes mikhailovi sp.n. (30), Z. gusakovskii (31), Z. potanini (32) and Z. puritanus (33). 30-32: ventral view, 33: apical part, ventral view.

Figs.34-40: ♂-palp of Zelotes mikhailovi sp.n. (34-35), Z. gusakovskii (36), Z. potanini (37-38) and Z. puritanus (39-40). 34, 37,39: tibia, retrolateral view, 36: dorsal view, 35,38,40: embolic division, retroapical view.



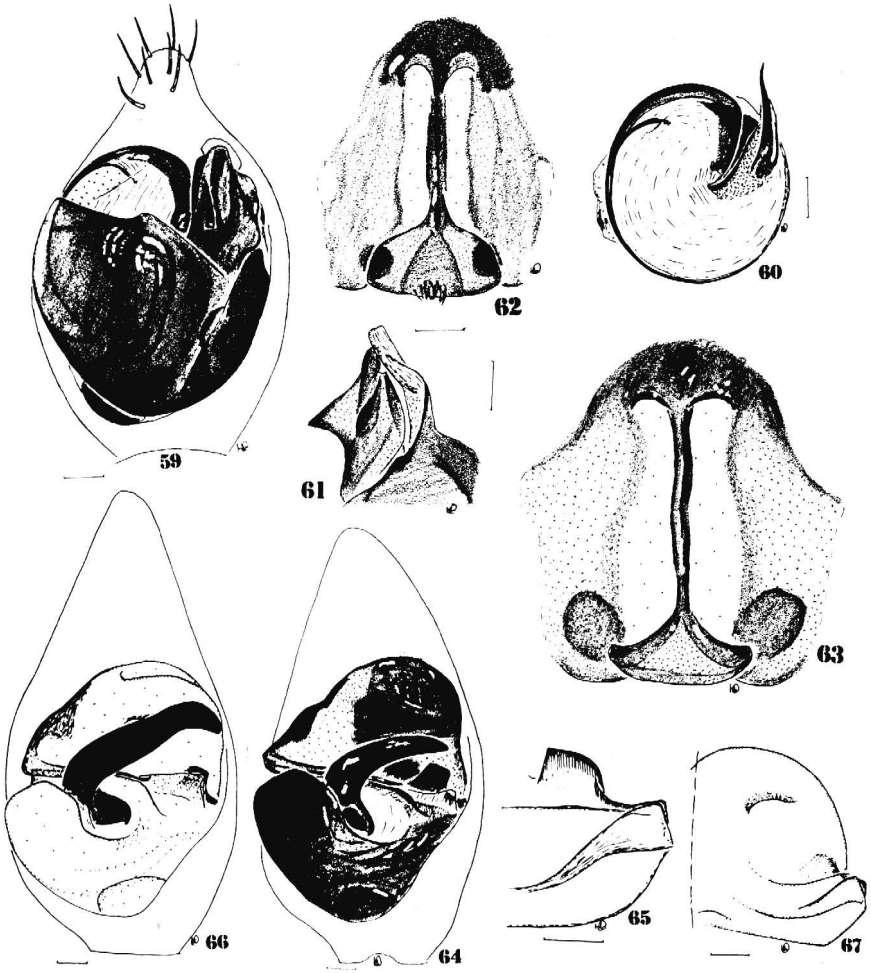
Figs.41-44: Epigyne of Zelotes mikhailovi sp.n. (41), Z. potanini (42-43) and Z. puritanus (44), ventral view. 44: specimen from the Magadan Area.

Figs.45-48: Leptodrassus nemoralis (45-47) and Z. declinatus (48). 45-46: ♂-palp, ventral and retrolateral view, 47,49: epigyne, ventral view.



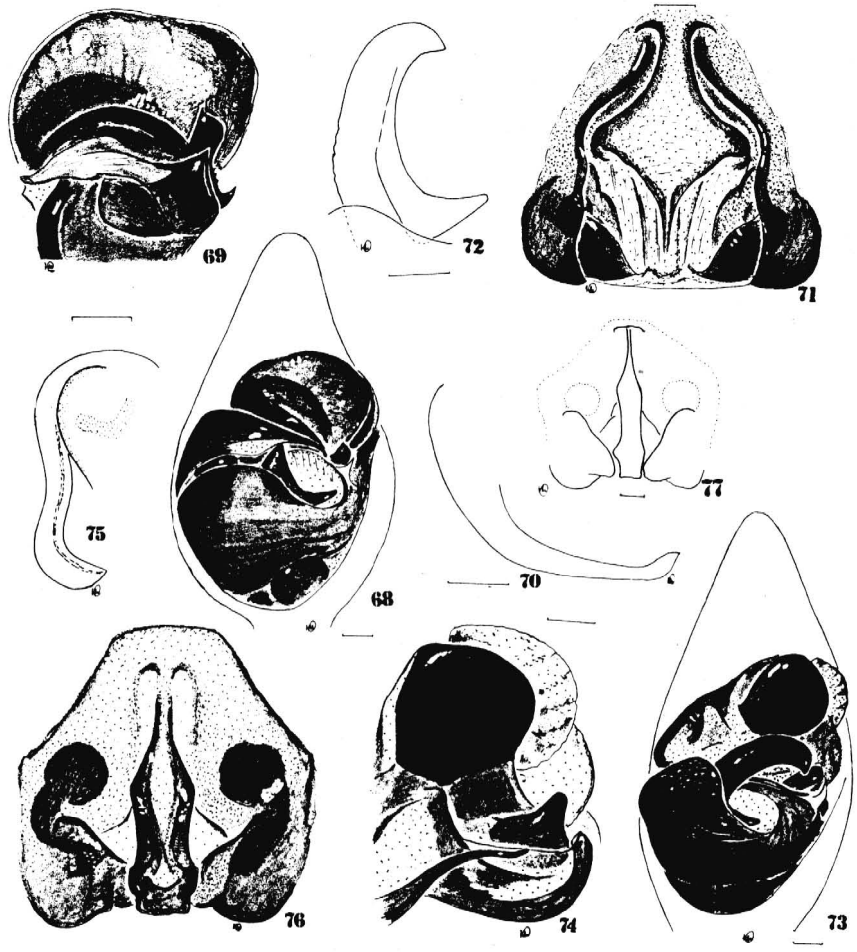
Figs.49-52: Zelotes declinatus (49-50), Z. pseudoapricorum (51) and Z. pygmaeus (52). 49,50: ♂-palp, ventral and retrolateral view, 51-52: epigyne, ventral view.

Figs.53-58: Alopecos akkolka sp.n. (53-54), A. saurica sp.n. (55-56), Arctosa cervina (57) and Evippa sibirica sp.n. (58). 53,55, 57: epigyne, ventral view, 54,56: epigyne, dorsal view, 58: ♂-palp, retrolateral view.



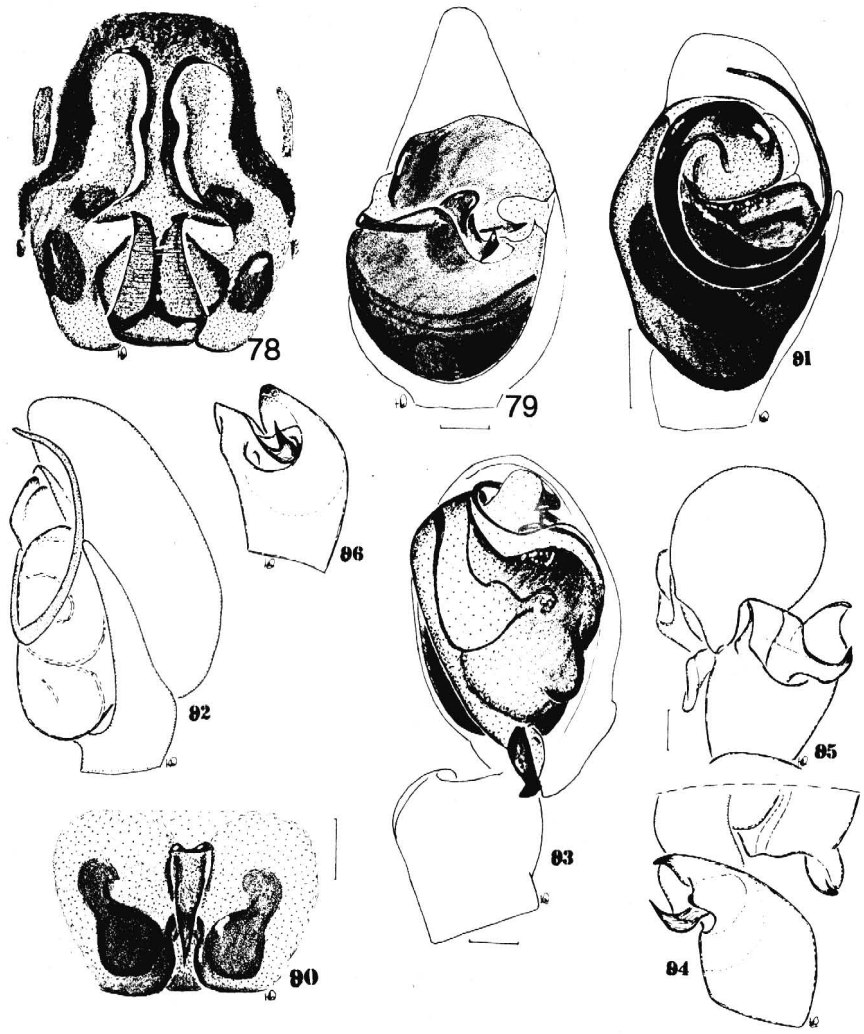
Figs.59-63: Evippa sibirica sp.n. and Evippa sp. (63) from Ural`sk Area. 59: ♂-palp, ventral view, 60: embolus and conductor, ventral view, 61: tegular apophysis, 62-63: epigyne, ventral view.

Figs.64-67: ♂-palp of Pardosa jeniseica (64-65) and P. chinophila (66-67). 64,66: ventral view, 65,67: terminal part of the bulbus.



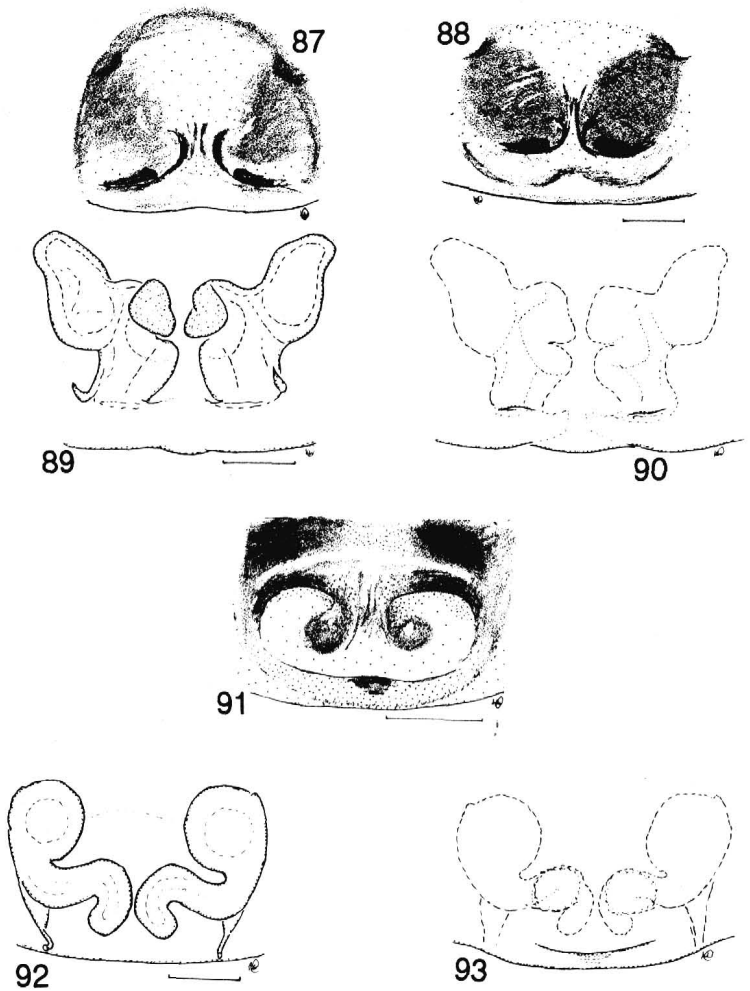
Figs.68-72: Pardosa nenilini sp.n. (68-71) and P. pseudolapponica sp.n. (72). 68: ♂-palp, ventral view, 69: terminal part of the ♂-palp, 70: embolus, apical view, 71: epigyne, ventral view, 72: tegular apophysis.

Figs.73-77: Pardosa pseudolapponica sp.n., 73: ♂-palp, ventral view, 74: terminal part of the ♂-palp, 75: embolus, apical view, 76-77: epigyne, ventral view.



Figs.78-82: Pardosa dzhemineyi sp.n. (88), P. thaleri (78-80) and Chalcoscirtus platnicki sp.n. (81-82). 78-80: epigyne, ventral view, 79-81: ♂-palp, ventral view, 82: ♂-palp, retrolateral view.

Figs.83-86: ♂-palp of Titanoeca eca sp.n. 83: ventral view, 84: part of the ♂-palp, prolateral view, 85: apical view, 86: tibia.



Figs.87-93: Epigyne of Titanoeca eca sp.n. (87-90) and T. minuta sp.n. (91-93). 97-98,101: ventral view, 89,92: epigyne after maceration, dorsal view, 90-93: epigyne after maceration, ventral view.