GNAPHOSID SPIDERS FROM TUWA AND ADJACENT TERRITORIES, RUSSIA

(Aranei: Gnaphosidae)

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Onaphid faunas of Tuva and adjoining areas till last time were very poorly studied if compared with those of NE Siberia, China, Mongolia. No species were recorded from Tuva. During two years of arachno-entomological expeditions undertaken by the Zoological Museum of Biological Institute, Novosibirsk, 46 species were found in Tuva and not less than 51 in the whole SW Siberia around Tuva. Five of them and one genus are new to science and 11 to fauna of Russia, and one genus (Echmenus) is new to Siberia. Numerous Micaria species were not included in the paper as whole material was sent for revision to Kirill G. MIKHAILOV (Moscow), and S.DANILOV (Ulan-Ude).


All measurements are given in mm, scale = 0.1 mm, if not otherwise indicated.

All materials have been shared between the collections of the Zoological Museum of the Biological Institute (BI), Novosibirsk, Institute for Biological Problems of the North (IBPN), Magadan, American Museum of Natural History (AMNH), New York and private collection of JÖRG WUNDERLICH (JW), Straubenhardt.

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The following lists summarize new facts given in this paper.

New taxa described:
Berlandina schenkelii sp.n
Berlandina ubsnurica sp.n
Drassodes longispinus sp.n
Echmenus sibiricus sp.n
Gnaphosa tuvinica sp.n
Tuvadrassus gen.n
Tuvadrassus tegulatus gen.n sp.n

Unknown males described:
Gnaphosa gracilior KULCZYNISKI
Gnaphosa proxima KULCZYNISKI
Tuvadrassus tegulatus (SCHENKEL)

New synonyms and combinations:
Drassodes tegulatus SCHENKEL, 1963 = Tuvadrassus tegulatus comb.n.

Species new for the USSR:
Berlandina potanini SCHENKEL
Drassodes lesserti SCHENKEL
Drassodes kaszabii LOKSA
Drassodes pseudolesserti LOKSA
Drassodes serratidens SCHENKEL
Gnaphosa denisi SCHENKEL
Gnaphosa glandifera SCHENKEL
Gnaphosa gracilior KULCZYNISKI
Tuvadrassus tegulatus (SCHENKEL)
Zeolites barozi PLATNICK et SONG
Zeolites yutian PLATNICK et SONG.

TAXONOMIC SURVEY OF THE SPECIES

Berlandina potanini SCHENKEL, 1963 Figs. 1-3
Material examined: Tuva: KZ: 1Q, 5-7 km W of Kyzyl, Yenisei
River Valley, 700 m, 4-7.06.1989 (D.L.); Q, environs of Kyzyl, 700 m, 7.05.1990 (D.L.). OV: Q, north bank of Usbu Nur, 750 m, 12.06.1989 (D.L.).

Measurements. Total length: 6.5-7.5. Carapace: 2.5-2.9 long, 1.8-2.1 wide. Eye sizes and interdistances: AME 0.09, ALE 0.10, PME 0.08, PLE 0.08. All eyes closely separated, only PMA-PMA is about one diameter, MQ 0.39-0.43 length, 0.43-0.49 front width, 0.51-0.56 back width.


Male unknown.

Diagnosis and comments. B. potanini can be easily separated from all other representatives of the genus by the shape of epigynal fovea (Figs. 1-3). Female from Ovyur District was collected together with male, which is very small and has different leg spination (see description of B. ubsunurica sp.n.).

Distribution. South Siberian range, early was known from North China SCHENKEL (1936) (as B. plumalis (O.P.-CAMBRIDGE); 1963). Mongolia (personal information). Tuva is the first record in the USSR and northwesternmost point of distribution.

Berlandina schenkelii sp.n. Figs. 4-7

Material examined. Tuva: ER: Q, environs of Erzin Vill., 1000 m, Tses-Khem River Valley, 24.05.1990 (D.L.). MT: Q, 5-8 km SE of Mugur-Aksy Vill., Kargy River Valley, 1700-1900 m, 18.05.1990 (D.L.); Q, same locality, 10-25.05.1989 (Ye.I. KHELEBOLOV). PK: Q, Q, 10 km SE of Seseerig Vill., 1100-1200 m, 2.05.1990 (D.L.).

Measurements (male/female). Total length: 4.9-6.3/7.0-8.0. Carapace: 2.3-2.8/3.0-3.3 long, 1.7-2.0/2.3-2.4 wide. Eye sizes and interdistances: AME 0.07/0.09, ALE 0.10/0.12, PME 0.09/0.11, PLE 0.09/0.10. All eyes closely separated, MQ 0.34-0.41/0.46 length, 0.37-0.41/0.46-0.47 front width, 0.44-0.51/0.53-0.60 back width.


Female. Colouration same as in male. Legs spination: leg I: femur d1-1, p0-0-1, tibia v1-2-2-ap., metatarsus v1-2-1-2-2-ap.; leg II: femur d1-1, p0-0-1, tibia v1-1-lap., metatarsus v2-2-1-2-ap., or 2-2-2-ap.; legs III and IV with numerous spines as in male. Epigyne as in Figs. 6-7.

Diagnosis. This new species can be easily distinguished from all other Berlandina species by the very long tibial and median apophyses, shape of embolic division and epigyne.

Distribution. Tuva only.

Berlandina ubsunurica sp. nov. Figs. 8-10


Measurements. Total length: 4.3. Carapace: 1.85 long, 1.48 wide. Eye sizes and interdistances: AME 0.06, ALE 0.09, PME 0.07, PLE 0.10, all eyes closely separated, PME-PME is about one their diameter, all other interdistances less, MQ 0.31 length, 0.34 front width, 0.36 back width.


Female unknown.

Diagnosis and comments. New species is related to B. charitonovi PONOMARJOW, 1979, from which it can be easily distinguished by the shape of embolus and tibial apophysis. A single male was taken from the same collecting sample as one female of B. potanini. As male is much smaller, has different colouration and spination we suppose that the two sexes belong to different species.

Distribution. Type locality only.

Callilepis nocturna (LINNAEUS, 1758)

Distribution. Transpalaeartic range, from West Europe to NE Siberia.

Drassodes lapidosus (WALCKENAER, 1802)


Distribution. Transpalaeartic range (OVTSHARENKO, MARUSIK, 1988), from West Europe to NE Siberia.

Drassodes lesserti SCHENKEL, 1936


Comments. This species was described by SCHENKEL in 1936 (p.254-255, fig. 83) and in 1963 (p.31, fig.12) under same name. Both female holotypes belong to one species. Redescription of the female and description of the male was published by LOKSA (1965). According to our materials males described as D. lesserti by LOKSA belong to a different species (D. neglectus). Males find together with D. lesserti females in Tuva can be distinguished from sympatric species by the characteristic shape of both embolus and trilobal apophysis. Males of D. lesserti has palpal spines shorter than in D. longispinus sp.n. but longer than in D. serratidens. Females of this species can be easily separated from other Drassodes species by the shape of epigynal fovea and septum.

Distribution. North China (SCHENKEL, 1936, 1963), Mongolia (LOKSA, 1965) and Tuva (first record in the USSR).

Drassodes kaszabi LOKSA, 1965

Material examined: Tuva: MT: 1Q, 45-50 km W of Mugur-Aksy Vill., upper flow of Kargy River, Kholuchtug nature limit, 2200-2300 m, 20.05.1990 (O.L.).

Comments. Description of this species was based on a one female (LOKSA, 1965). A single female with the same epigyne was found in Tuva. Females of D. kaszabi can be easily distinguished from other Drassodes species by the great epigynal fovea and small septum. According to drawings of D. licenti SCHENKEL, 1953, described from East Mongolia this species is closely related to D. kaszabi or belongs to the same species. But as SCHENKEL's types described in 1953 were lost, we were unable to compare the two species.

Distribution. Earlier this species was known from Mongolia (LOKSA, 1965) only, Tuva is a first record in USSR.

Drassodes serratidens SCHENKEL, 1963

Comments. Firstly we determined females of this species as D. ndamicus SCHENKEL, 1963. But after the males were recognized as D. serratidens we have found that the female of latter species described by SCHENKEL, belongs to a different species. Both males and females from Tuva has very characteristic abdominal pattern (see fig. 14 in SCHENKEL, 1963) unusual for Drassodes. So D. ndamicus is a synonym of D. serratidens. As no holotype was selected by SCHENKEL for the latter species it would be possible to designate the female as lectotype. In this case names for both species will be valid. We leave this procedure for the first reviser of Asian Drassodes or SCHENKEL's materials. Males of D. pseudoeserti described by LOKSA (1965) from Ulan-Bator, Mongolia are similar to that of D. serratidens and may belong to the same species, while females are quite different. Males of D. serratidens are easily distinguishable by the shape of median and tibial apophyses, embolus and short tibial spines. Females can be easily separated from other species by the shape of epigynal fovea, margins of the fovea and septum.

Distribution. Early was known from China (SCHENKEL, 1963) only, first record in the USSR

Drassodes neglectus (KEYSERLING, 1887)


Distribution. Siberian-American range (OVTVSHARENKO, MARUSIK, 1988), Tuva is westernmost point of distribution.

Drassodes pseudoeserti LOKSA, 1965 ?


Distribution. Early this species was known from Ulan Bator, Mongolia, only (LOKSA, 1965). Tuva and Khakassia are northwesternmost points of its distribution.

Drassodes longispinus sp.n. Figs. 26-33

Material examined: Tuva: KZ: Holotype ♂, environs of Kyzyl, 700-900 m, 17.05.1990 (D.L.); paratypes: 5m, 1Q, environs of Kyzyl, 700-900 m, 20.05.-3.07.1989 (D.L.); 1Q, same locality, 17.05.-1.07.1990 (D.L.); 1Q, 65 km W of Kyzyl, Otku-Dash Natural limit, 10.05.1990 (D.L.). PK: 1Q, 5-7 km NW of Seseserig Vill., 1000-1400 m, 24-25.07.1989 (D.L.). TD: 1Q, Azass Reserve, environs of Azass Lake, 21-22.06.1989 (D.L.). UK: 1Q, 1Q, 8 km S of Torgalyg Vill., 1100-1250 m, 9.05.1990 (D.L.); 1Q, 5 km E of Shagonar Town, Khayirkan Mt., 10.05.1990 (D.L.).

Description: Total length 9.6-13;0/9.0-14.7. Carapace: 4.0-6.0/ 4.4-6.25 long, 2.9-4.2/2.85-4.4 wide. Colouration common for Drassodes. Abdomen with indistinct heart-line. Palp with relatively short embolus and long seminal duct (Figs. 26-30), epigyne with small fovea and short margins (Figs. 32-33). Male chelicera as in Fig. 31.

Diagnosis and comments. The new species has unique for Drassodes longispinus long and curved into some loops seminal duct of the male bulbus. This character, as well as long tibial spines on the male palp, shape of embolus, tibial apophysis, and structure of female epigyne and vulva are diagnostic for D. longispinus sp.n.. Females of this species are very similar to that of D. pseudoeserti, and can be separated by greater size of the body and epigyne and by rounded base of the scape.

Distribution. Tuva only.

Drassodes villosus (THORELL, 1856)


Distribution. Transpalaearctic range (OVTVSHARENKO, 1982).
Echeneus sibiricus sp. n. Figs. 34-36

Material examined: Holotype \( \d \), Tuva: MT: 3-4 km SE of Mugur-Aksy Vill., 1800-1850 m, 16-20.05.1990 (D.L.).

Description. Male. Total length 3.0. Carapace: 3.0 long, 2.15 wide. Eye sizes and interdistances: AME 0.16, ALE 0.14, PME 0.13, PLE 0.14, AME-AME 0.08, AME-ALE overlapping, PME-PME 0.10, PME-PLE 0.09, ALE-PLE 0.07, MOQ length 0.40, MOQ frontal width 0.37, MOQ back width 0.36. Carapace orange-brown. Abdomen yellow-grey with short red-brown scutum and 3 pairs of muscle dots and with dense cluster of long curved erect setae at the anterior end. Sternum orange, as in Drassodes with many small angles. Legs light-brown, tarsi I-IV lighter than other segments. Tarsi IV, palpal patella and apical part of femur pale. Cymbium and palpal tibial brown. Leg spinulation: femur I pl, II-III p3, patella III-IV pl and r1, tibia III and IV d7, p3, r2, v2-2-2, metatarsus III p4, r4 and pv3, metatarsus IV p5, r5, v2-2-2-2. Palp (Figs. 34-36) long with elongate abopphi, large median apophysis and curved large lobes.

Diagnosis and comments. E. sibiricus sp.n. can be easily separated from European E. angustifrons (WESTRING) by long the tibial abopphi and the large median apophysis. We had no possibility to compare our specimen with the type species of the genus: E. angustifrons and we placed new species into Echeneus according to the diagnosis given in GRIIM (1985) and T.Y.-SCHENK (1971). Structure of the male genitalia are given poor in the drawings of GRIIM (1985) and TULLGREN (1946). And it is difficult to compare the shape of median abopphi and embolus. So we are not sure about placement of new species in correct the genus.

Note. SIMON (1895) described from SW Siberia two Gnaphosa species: G. potanini and G. mongolica. We examined only one of them, G. potanini (Fig. 37) which is deposited in Museum National d'Histoire Naturelle, Paris. So, one the species listed below can belongs to G. mongolica, holotype of which we were unable to re-examed. G. mongolica were recorded from Mongolia (LOKS, 1965, no drawings) and East-Kazakhstan Area (SAVEL'-YEVYA, 1972, figs. 1-2). Types of G. mongolica were not reexamined by both authors. Drawings in the paper of SAVEL'-YEVYA are similar to G. punctata.

Gnaphosa borea KULCZYNSKI, 1908


Distribution. Siberian-american range (OVTSHARENKO, MARUSIK, 1988). Tuva is south-westernmost point of distribution.

Gnaphosa denisi SCHENKEL, 1963 Figs.81-82


Comments. Recently (SONG, 1987) G. acuria SCHENKEL, 1963 and G. eduita were synonymized with G. denisi. According to drawings of G. licenti SCHENKEL, 1953 this species belongs to the same species as G. denisi probably. As SCHENKEL's types of 1953 were lost we can not compare types of both species.

Distribution. Earlier the species was known from China only (SONG, 1987). Within Soviet Union this species was also found in East-Kazakhstan Area (Saur Mt. Range).

Gnaphosa glandifera SCHENKEL, 1963 Figs. 38-39


G. charitonovi SCHENKEL, 1963: 75-76, fig. 41, holotype from China, in MNHN, not examined. Probably syn.n. G. mandschurica SCHENKEL, 1963: 71-72, fig. 38, holotype from Mongolia or China, in MNHN, not examined. Probably syn.n.


Comments. Types of G. glandifera and G. holmi with no doubts belong to one species. According to SCHENKEL's (1963) and SONG's (1987) drawings of G. charitonovi and G. mandschurica both species are conspecific with G. glandifera. We selected G. glandifera as a senior synonym of G. holmi because the latter species is a ho- monym of G. holmi TULLGREN (male = G. orites, female = G. mic- ropa), and types of two other species were not reexamined by us.
**Gnaphosa gracilior** KULCZYSKI, 1901  Figs. 40-46

**Material examined:** Khakassia: SH: 1q, 5 km SE of Shira Vill, Shira Lake, 21.06.1990 (D.L., V.M.) TA: 1q, 5 km SW of Khovu-Aksy, Eleger River Valley, 4-6.09.1990 (D.L.). Tuva: ER: 4q, 20 km NW of Erzin Vill., Dus-Khol’ Lake, 800-900 m, 31.05-13.08.1989 (D.L.); 4q, 11f, 20-30 km W of Erzin Vill., Ochhalaun Mt. Range, 1200-1400 m, 27.05-12.08.1989 (D.L.); 1q, 4q, environs of Erzin Vill., 1000 m, 23-26.05.1990 (D.L.); 1q, Tere-Khol’ Lake, Eder-Elezin Sands (Desert), 1150-1200 m, 9.08.1989 (D.L.). KZ: 4q, environs of Kyzyl, 700-900 m, 5.06-22.07.1989 (D.L.); 1q, 5q, same locality, 1.05-1.07.1990 (D.L.). MT: 7q, 33q, 5-8 km SE of Murgur-Aksy Vill., Karay River Valley, 1700-1900 m, 16.05.-11.06. 1990 (D.L., O.L.); 1q, 30-35 km SW of Murgur-Aksy Vill., down flow of Karay River, Semigorki, 1700m, 15.06.1989 (D.L.); 9q, 45-50 km W of Murgur-Aksy Vill., Cholchudug-Khouv Natural limit 2200-2300 m, 17. 05. 1990 (D.L.); 1q, Barlyk River Valley, confluence with Onchay River, 6. 06.1 990 (O.L.). PK: 1q, 5-7 km NW of Seserlig Vill., 1000-1400 m, 2.05. 1989 (D.L.). TK: 5q, 10-12 km NW of Khol’-Oozhu Vill., Belengisch Natural Limit, 1700-1800 m, 9-11.07.1989 (D.L.); 2q, 50 km W of Erzin Vill., Shara-Nur Lake, 3.06.1989 (V.Z.). UK: 6q, 8 km S of Torgaly Vill., 1100-1250 m, 9.05.1990 (D.L.).

**Comments:** Description of this species was based on one female collected in Urga (Ulan-Bator now). Within gnaphosids collected in Mongolia and Tuva we found many species similar to *G. gracilior* and *G. proxima*. When male of both species were found (male of *G. proxima* was recently found near type locality Verkhoyansk, NE Yakutia) it was possible to separate females. *G. gracilior* vary in size of genitalia greatly (see figs. 44-46 and scales). Especially big males and females were found near Kyzyl. Males of the two species can be easily separated by the shape and position of the basal emollient ridge, and also by the shape of median and tibial apophyses. Females can be separated only by structure of the vulva. Epigynial glands are in *G. proxima* thinner, longer and directed to scape, while in *G. gracilior* they are shorter and thicker and directed dorsally.

**Distribution:** Mongolia and Tuva. Tuva is northernmost point of distribution, and first record in the USSR.

**Gnaphosa inconspicua** SIMON 1878  Figs.63-64

**Material examined:** Tuva: ER. 2q, 3-5km S of Erzin Vill., Tes-Khem River Valley, valley forest, 1100m, 14.08.1989 (D.L.); 1q, same locality, 1000-1100m, 24.05.1990 (O.L.).

**Distribution:** Palearctic.

**Gnaphosa leporina** (L.KOCH, 1866)


**Distribution:** European-Middle-Siberian range, from West Europe east to Lena River.

**Gnaphosa muscorum** (L.KOCH, 1866)  Figs. 51-52, 55-56


**Distribution:** Circumholarctic range.

**Gnaphosa nigerrima** L.KOCH, 1878

**Material examined:** Tuva: OV: 4q, Ubsu-Nur Lake, 12.06.1989 (D.L.).

**Distribution:** Transpalaeartic range (OVTSHARENKO, MARUSIK, 1988). Tuva is southernmost point in Siberia.

**Gnaphosa proxima** KULCZYSKI, 1908  Figs. 47-50

**Material examined:** Tuva: ER: 1q, 1q, 3-5 km E of Erzin Vill., 1100-1200 m, 23-25.05.1990 (D.L.). MT: 1q, 3 km E of Murgur-Aksy Vill., 1800-1850 m, 14.06.1989 (D.L.). OV: 1q, 15 km E of Khardagay Vill., Ulatay River Valley, 1000-1100 m, 12.06.1989 (D.L.). TK: 1q, 5 km E of Ak-Erik Vill., Tes-Khem River Valley, 25.05.1990 (O.L.). UK: 1q, 5-7 km E of Shagonar Town, Khaiykan Mt., 10.05.1990 (D.L.).

**Comments:** This species is closely related to *G. gracilior*. We did not find differences in external shape of epigynum but only in size (it is smaller) and position of epigynal glands. Males of *G. proxima* which are described for the first time can be separated by the smaller size of carapace and palp, as well as by smaller tibial apophysis, and shape of emollient ridge.
**Distribution.** Siberian range (OVTSHARENKO, MARUSIK, 1988), Tuva is the southwesternmost point of distribution.

**Gnaphosa punctata KULCZYNSKI, 1901**

**Material examined:** Tuva: ER: 2q, 3q, 20-30 km W of Erzin Vill., Onchalaan Mt. Range, 1200-1400 m, 10.05.-2.06.1989 (D.L.); 1q, same locality, Yamaalgy Mt. Range, 1200-1300 m, 9-10.06.1989 (D.L.); KZ: 7q, 5q, environs of Kyzył, 700-900 m, 20.05.-22.07.1989 (D.L.); 1q, 4q, same locality, 17.05-1.07.1990 (D.L.); 3q, 65 km W of Kyzył, Otuk-Dash Natural limit, 10.05.1990 (D.L.). MT: 1q, 5-8 km SE of Mugur-Aksy Vill., Kargy River Valley, 1700-1900 m, 18.05.1990 (D.L.); 1q, 55 km SW of Mugur-Aksy, Eski-Tolaytay Lake, 9100-2200 m, 14-15.06.1989 (D.L.). OY: 1q, 15 km E of Khandagayty Vill., Ulatay River Valley, 1000-1100 m, 12.06.1989 (D.L.). IČ: 1q, north bank of Ubsu-Nur, 750 m, 12.06.1989 (D.L.). TK: 1q, 1q, environs of Khol'-Oozhu Vill., 1200 m, 8.07.1989 (D.L.); 1q, 50 km W of Erzin Vill., Shara-Nur Lake, 800-900 m, 3.06.1989 (V.Z.). UK: 1q, 1q, 5 km E of Shagonar Town, Khayirkhan Mt., 10.05.1990 (D.L.); 1q, 10-15 km SW of Shagonar Town, Chaaty River, 8.05.1990 (D.L.).

**Comments.** G. punctata was synonymized with Europian G. spinosa KULCZYNSKI, 1897 by LOKSA (1965). Both species were known by females only. Recently, WEISS and MARCU (1988) described the male of G. spinosa. Males collected in Tuva and in Mongolia together with females of G. punctata are quite different from that of G. spinosa. G. punctata were described several times by SCHENKEL from China under different names: G. auriceps SCHENKEL, 1953 (♀ and ♂), G. chauffanoni SCHENKEL, 1963 (♂), G. corifera SCHENKEL, 1963 (♀). So, all 3 species should be synonymized with G. punctata. We leave this procedure to the first revisor of SCHENKEL's gnaphosids or Asian Gnaphosa.

**Distribution.** This species is very common in all collections from Mongolia, and Tuva, early was recorded from Mongolia (KULCZYNSKI, 1901; LOKSA, 1965) and China (SCHENKEL, 1953, 1963) and Kalmykia, USSR (PONOMARYOV, 1981).

**Gnaphosa sticta KULCZYNSKI, 1908**

**Material examined:** Tuva: TK: 1q, 15-20 km NW of Khol'-Oozhu Vill., Kangay-Krykt Mt., 2000-2100 m, 8-9.07.1989 (D.L.).

**Distribution.** Transpalearctic range (OVTSHARENKO, MARUSIK, 1988), Tuva is the southernmost point in Siberia.

**Gnaphosa tuvinica sp. n.** Figs. 57-60

**Material examined:** Tuva: MT: Holotype ♂, 4-5 km SE of Mugur-Aksy Vill., 2000-2500 m, 7.06.1990 (D.L.); 1q, 3-4 km SE of Mugur-Aksy, mountain steppe, 1900 m, 18.05.1990 (D.L.); 5q, =5 km E of Mugur-Aksy Vill., upper flow of Kuge-Davaa River, 2000 m, 18.05.1990 (D.L.).

**Description.** Total length (male/female) 9.7-10.5/10.4-13.6. Carapace: 5.0-5.3/4.3-5.4 long, 3.8-4.0/3.3-4.0 wide. Colouration as in G. muscorum. Abdomen in male dark-grey, and grey in female. Femur I in male with p2, tibia I v2-2-2, in female tibia IV0-1-2, ♂-palp (figs. 57-58) with long embolus and median apophysis, high tegulum, short tibial apophysis. Embolus with small ridge in basal third. Epigyne (figs. 59-60) with relatively long scape, short fovea margins and glands.

**Diagnosis.** The new species belongs to the G. lugubris-group (sensu PLATNICK, SHADAB, 1975). Within south Siberian species of Gnaphosa G. tuvinica sp. n. is similar to G. muscorum, from which it can be distinguished by the more apical position of embolus, absence of erectile basal spur, higher position of tegulum, and by the shape of epigyne. The new species is not similar to any species described by SCHENKEL from China.

**Distribution.** The species known from Mongun-Taiga District only. As G. tuvinica sp. n. It is high mountain species and is probably endemic of Tuva.

**Gnaphosa viehlei SCHENKEL, 1963** Figs.69-70

**Material examined:** Tuva: ER: =20km W of Erzin, Onchalaan Mt. Range, 1100-1800m, 4.06.1990 (D.L.).

**Comments.** This species is similar to muscorum from which it can be separated by the shape of the scape and smaller size.

**Gnaphosa sp. 1** Figs. 61-62

**Material examined:** Khakassia: SH: 19♀, =1 km S of Kommunar Vill., lichen-stony mountain tundra, 1300-1400 m, 23.07.1990 (D.L.). KVR: 6♀, Sayany, Oisky Pass, 8-10 km S od Oisky Lake, 1700-1800 m, 27.06.-10.07.1990 (D.L.).

**Comments.** This probably new species is similar to G. petrobia L.KOCH (see figs. 58-59 in GRIMM, 1985), which is known from Europe only. It is differ from European species by the shape of epigynal fovea margins, wider opening, and by the structure of the vulva.
Gnaphosa sp. 2  Figs. 65-66

Material examined: Tuva: UK: 1 Q, =8 km S of Torgalyg Vill., gravelly bank of the Torgalyg River, 900-950 m, 8-9.05.1990 (D.L.).

Comments. This species is similar to G. davidici SCHENKER, 1963, described from China and belongs to same species probably.

Gnaphosa sp. 3  Figs. 67-68

Material examined: Tuva: MT: 2 Q, Barlyk River Valley near confluence with Onchalan River, 6.06.1990 (O.L.).

Comments. Gnaphosa sp. 3 is similar to G. opitces CHAMBERLIN, G. opaca HERMAN and G. lapponum (L./KOCH) but can be separated from all of them by the shape of epigynal fovea, scape, openings and structure of vulva.

Haplodrassus hiemalis EMERTON, 1909  Figs. 71-75


Comments. H. hiemalis is very similar to H. moderatus.

Diagnosis of both species see below (moderatus).

Distribution. Siberian-american range (OVTSARENKO, MARUSIK, 1988). Khakassia is southwesternmost point of distribution.

Haplodrassus moderatus (KULCZYNSKI, 1897)  Figs. 76-80


Comments. H. moderatus is closely related to H. hiemalis. Females can be easily distinguished by the shape of epigynal fovea margins. Males of two species are very similar. They can be distinguished by the shape of embolus and terminal apophyses. H. moderatus has greater terminal apophysis, pointed embolus and small embolic dent.

Distribution. Transpalearctic range, from Europe east to NE Siberia (environs of Magadan).

Haplodrassus pugnans (SIMON, 1885)


Distribution. Widespread siberian species (OVTSARENKO, MARUSIK, 1988), early was known from Central Siberia, Magadan Area, Japan and China. Tuva is the northwesternmost point of its distribution.

Haplodrassus signifer (C.L./KOCH, 1879)


Distribution. Circumholarctic range (OVTSARENKO, MARUSIK, 1988).

Haplodrassus soeren sensi (STRAND, 1900)

Material examined: Tuva: PK: 1 Q, 5-7 km NW of Seserlig Vill., 1000-1100 m, 24-25.07.1989 (D.L.); 1 Q, West Sayany, Kurushinskii Mt. Range, 10 km NW of Shivilig Vill., 1100-1200 m, 6-8.07.1990 (D.L.). Kyr: 1 q, West Sayany, Oinski Mt. Range, 8-10 km S of Oiskoye Lake, Oisky Pass, 1400 m, 27-28.06.1990 (D.L.).

Distribution. Transpalearctic range (OVTSARENKO, MARUSIK, 1988), from Europe east to Magadan Area.

Phaeoceus braccatus (L./KOCH, 1866)

Material examined: Khakassia: AS: 3 Q, 8 km E Birkichul' Vill.,

Distribution. European-Middle Siberian species.

Tuvadrasinus gen.n.

Type species: Drassodes tegulatus SCHENKEL, 1963.

Diagnosis. The new genus belongs to Drassodinae and is related to Tuvadrasinus and Drassodes. From both genera Tuvadrasinus gen.n. can be separated by the eye spacing (AME approximated on less than diameter), and by the shape of genitalia. Embolic division of Tuvadrasinus gen.n. with terminal apophysis as all Haplograssus species, but it is strongly reduced, and smaller than Embolus. Embolus unlike as in Haplograssus long and thin, but wider than in Drassodes. Seminal duct as in Haplograssus. Transparent unsclerotized conductor situated in retro lateral apical part of tegulum (in Drassodes it is apical-pro lateral, and absent in Haplograssus). Palpal tibia longer than in Haplograssus and shorter than in majority of Drassodes species. It is similar to that in Parasyriscus. Palpal tibial apophysis longer than in Haplograssus and pointed apically. It is longer than in Drassodes also, and has no denticles. As palpal tibia, tibial opophyses is somewhat similar to that in Parasyriscus. Epigyne similar to that in Haplograssus, but anterior ridge (pocket) curved (only few species Haplograssus species have ridge, but it is straight) and has real pocket (see Figs. 86-87) which is absent in Drassodes. Lateral margins of epigynal fovea are nearly parallel and constricted apically in Tuvadrasinus gen.n., while in Haplograssus they are curved and often diverging apically. So Tuvadrasinus gen.n. combines characters of Drassodes (presence of conductor, long palpal tibia) and Haplograssus (presence of terminal and median apophyses, similar shape of seminal duct, distinct lateral and anterior margins of epigynal fovea, etc.)

Tuvadrasinus tegulatus (SCHENKEL, 1963) comb.n. Figs. 83-87

Drassodes tegulatus SCHENKEL, 1963: 40-41, fig. 18 (Q), from Kansu, in MNHN, not examined.

Material examined: Tuva: ER: 1Q, Tere-Khol' Lake, Eder-Elesin Sands, 1150-1200 m, 26.05.1989 (D.L.), MT: 1Q, 45-50 km W of Kurgay-Aksey Vill., upper flow of Kargy River, Khuchug Natural Limit, 2200-2300 m, 20.05.1990 (O.L.); 4-5 km SE of Kurgay-Aksey Vill., 1750-1800 m, desert like steppe, 18.05.1990 (D.L.).

Measurements (male/female). Total length 6.2/0.5-9.0. Carapace: 3.3/3.7 long, 2.5/2.75 wide. Eye sizes and interdistances: AME 0.14/0.16, ALE 0.14/0.14, PME 0.11/0.13, AME-AME 0.13/0.13, AME-PME 0.17/0.19, AME-ALE 0.03/0.03, ALE-PLE 0.14/0.13, PME-PME 0.06/0.06, PME-PLE 0.16/0.24. MOQ length 0.43/0.49, MOQ front length 0.36/0.44, MOQ back width 0.43/0.44.

Description. Colouration same as in Haplograssus and Drassodes: carapace yellow or orange, cephalic part, chelicerae, maxillae and labium brown, sternum yellow-brown, abdomen grey, femora ventrally and coxae pale white. Chelicerae with 2 retromarginal teeth. Coxae I and II longer than III and IV. Leg spination same in male and female. Femora I-III with 1p, 2d, femora III and IV with 1r, metatarsus II with 2v, tibia III and IV v2-2-2, p3, r2, metatarsus III and IV v2-1-2, p2-2, r2-2 (apically with 5 spines 2v, 2p and 2r). Male palp as in figs. 83-85, with 2d on femora, 1p on tibia and 6 on cymbium, terminal apophysis strongly reduced, conductor small and transparent, tibial apophysis long and pointed. Female epigyne (figs. 86-87) with parallel margins of fovea, and sclerotized anterior ridge (pocket).

Diagnosis. T. tegulatus is a single species of the Tuvadrasinus gen.n. It can be easily separated from representatives of related genera by the shape of male palp and epigyne.

Zelotes balitstanus CAPORIACCO, 1935


Distribution. From Karakoram Range at the south through Mongolia and Tuva north to East Yakutia and Upper Kolyma (OVSTHARENKO, MARUSIK, 1988).

Zelotes barkol PLATNICK et SONG, 1986


Distribution. First record in Russia and northwesternmost point of distribution. Earlier it was recorded from China (PLATNICK, 1986).
SONG, 1986) and Mongolia (OVTSHARENKO, personal communication).

**Zelotes fratriris** CHAMBERLIN, 1920


**Distribution.** Siberian-American range (OVTSHARENKO, MARUSIK, 1988). Khakassia is the southwesternmost point of distribution.

**Zelotes cf. fratriris** CHAMBERLIN, 1920

**Material examined:** Tuva: UK: 1Q, 8 km S of Torgalyg Vill., Torgalyg River, 900-950 m, 8-9.05.1990 (D.L.).

**Distribution:** Holarctic.

**Zelotes longipes** (L.KOC, 1866)


**Distribution.** Transpaleartic range (PLATNICK, SONG, 1986).

**Zelotes potanini** SCHENKEL, 1963


10.06.1989 (D.L.); 1G, 50 km W of Erzin Vill., Shara-Nur Lake, 800-900 m, 3.06.1989 (V.Z.). UK: 1Q, 8 km S of Torgalyg Vill., 1100-1250 m, 9.05.1990 (D.L.). KYR: 1Q, 5 km E of Shagornar Town, Khayirkhan Mt., 10.05.1990 (D.L.); 1Q, 10-15 km SW of Shagornar Town, Chahty River, 8.05.1990 (D.L.).

**Distribution.** Widespread Siberian species, north from Central Yakutia, west to East-Kazakhstan Area, south to Mongolia, China and Japan.

**Zelotes puritanus** CHAMBERLIN, 1922

**Material examined:** Tuva: TK: 1Q, 10-12 km NW of Khol'-Oozhu Vill., Belengishtch Natural Limit, 1700-1800 m, 9-11.07.1989 (D.L.).

**Distribution.** Circumholarctic disjunctive range (OVTSHARENKO, MARUSIK, 1988).

**Zelotes sula** LOWRIE et GERTSCH, 1955

**Material examined:** Tuva: PK: 3G, 4Q, 5-7 km NW of Seserlig Vill., 1000-1400 m, 24-25.07.1989 (D.L.); TA: 2G, 5km SW of Khovu-Aksy, 4-6.05.1990 (D.L.). UK: 2Q, 8 km S of Torgalyg Vill., 1100-1250 m, 9.05.1990 (D.L.).

**Distribution.** Siberian-American range (OVTSHARENKO, MARUSIK, 1988). Tuva is the southwesternmost point of distribution.

**Zelotes vutian** PLATNICK et SONG, 1986 Figs. 88-90


**Distribution.** This species is new for USSR fauna. According to our collections it is also present in Buryatia (Selenga Dist.), Saur Mt. Range (East-Kazakhstan Area) and in Central Yakutia. Earlier it was known from China (PLATNICK, SONG, 1986) only.

**Parasymphis quaubris** (SCHENKEL, 1963)

**Material examined:** Tuva: ER: 1G, 5-7 km SW of Erzin Vill., Tes-Khem River Valley, 1000-1100 m, 24.05.1990 (D.L.). KZ: 6G, 5km W of Kyzyl Town, 700 m, 25.05.1989 (D.L.); 4Q, same locality.
Parasyrisca sp. 1


Parasyrisca sp. 2

Material examined: Tuva: MT: QQ in different localities.

Parasyrisca sp. 3


Parasyrisca sp. 4


Addendum: New material was obtained from Altai, environs of Kosh-Agach Vill., Kurai Mt. Range, 16.VI.1971, A. P. KONONENKO leg.: Berlandina schenkeli sp.n., 1♂ paratype.
Drassodes neglectus 1♂.
Gnaphosa braendegaardi, 1♂.
Haplodrassus pugnans, 4♂♀.
Tuvadrassus tequilatus, 1♂.
Zelotes potanini, 10♀♂♀.

REFERENCES


Figs. 4-7. Berlandina schenkei sp.n.: 4) ♂-palp, ventral view; 5) ♂-palp, retrolateral view; 6) Q, epigyne, ventral view; 7) Q, epigyne, dorsal view.

Figs. 8-10. Berlandina ubunuriga sp.n.: 8) ♂-palp, ventral view; 9) ♂-palp, retrolateral view; 10) tibia of the ♂-palp, retrolateral view.

Figs. 11-12. Drassodes kaszabi. Q: 11) epigyne, ventral view; 12) epigyne, dorsal view.
Figs. 13-18. *Drassodes lasserti*: 13) ♂-palp, ventral view; 14) ♂-palp, prolateral view; 15) tibial apophysis, ventral view; 16) apical half of ♂-chelicera; 17) ♀, epigyne, ventral view; 18) ♀, epigyne, dorsal view.

Figs. 19-25. *Drassodes serratidens*: 19) ♂-palp, ventral view; 20) ♂-palp, prolateral view; 21) tibial apophysis, ventral view; 22) apical half of male chelicera; 23) and 24) ♀, epigyne, ventral view; 25) epigyne, dorsal view.
Figs. 26-33. Drassodes longispinus sp.n.; 26) ♂-palp, ventral view; 27) and 28) bulbous, ventral view; 29) ♂-palp, prolateral view; 30) tibial apophysis, ventral view; 31) apical half of male chelicera; 32) ♀, epigyne, ventral view; 33) epigyne, dorsal view.

Figs. 34-36. Echemus sibiricus sp.n., ♂; 34) palp, ventral view; 35) embolic division, prolateral view; 36) tibia of the palp, retrolateral view.

Fig. 37. Gnaphosa potanini ♀, holotype, epigyne, ventral view.

Figs. 40-46. *Gnaphosa gracilior*; 40) ♀-palp, ventral view; 41) tibia of the ♂-palp, retrolateral view; 42) and 43) basal part of the embolus, prolateral view; 44-46) epigyne, dorsal view.

Figs. 47-50. *Gnaphosa proxima*; 47) ♂-palp, ventral view; 48) tibia of the ♂-palp, retrolateral view; 49) basal part of the embolus, prolateral view; 50) ♀, epigyne, dorsal view.

Figs. 51-52. *Gnaphosa muscorum*, ♀; 51) epigyne after maceration, ventral view; 52) epigyne, dorsal view.

Figs. 53-54. *Gnaphosa manschurica* SCHENKEL, 1963, ♂; 53) palp, ventral view; 54) tibia of the palp, retrolateral view.

Figs. 55-56. *Gnaphosa muscorum* (L. KOCH, 1866), ♀; 55) epigyne, ventral view; 56) epigyne, dorsal view.

Figs. 57-60. *Gnaphosa targina* sp.n.; 57) ♂-palp, ventral view; 58) tibia of the ♂-palp, retrolateral view; 59) ♀, epigyne, ventral view; 60) epigyne, dorsal view.
Figs. 61-62. *Gnaphosa* sp. 1, Q; 63) epigyne, ventral view; 64) epigyne, dorsal view.

Figs. 63-64. *Gnaphosa inconspicua* SIMON, 1878, Q; 63) epigyne, ventral view; 64) epigyne, dorsal view.

Figs. 65-66. *Gnaphosa* sp. 2, Q; 65) epigyne, ventral view; 66) epigyne, dorsal view.

Figs. 67-68. *Gnaphosa* sp. 3, Q; 67) epigyne, ventral view; 68) epigyne, dorsal view.

Figs. 69-70. *Gnaphosa wiehlei* SCHENKEL, 1963, Q; 69) epigyne, ventral view; 70) epigyne, dorsal view.

Figs. 71-75. *Hapodrassus hiemalis* (♂ from Magadan Area); 71) ♂-palp, ventral view; 72) tibia of the male palp, retroapical view; 73) apical part of embolus, apical view; 74) ♀, epigyne, ventral view; 75) epigyne, dorsal view.

Figs. 76-80. *Hapodrassus moderatus* (male from Finland); 76) ♂-palp, ventral view; 77) tibia of the ♂-palp, retroapical view; 78) apical part of the embolus, apical view; 79) ♀, epigyne, ventral view; 80) epigyne, dorsal view.

Figs. 81-82. *Gnaphosa denisi*, ♂; 81) palp, ventral view 82) tibia of the palp, retrolateral view.

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A NEW SPECIES AND TWO INTERESTING RECORDS OF THE BLACK-WIDOW SPIDERS FROM MIDDLE ASIA AND THE CAUCASUS (Aranei, Theridiidae)

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Abstract: Latrodectus tadzhicus n.sp. (Aranei: Theridiidae) from Russia is described and compared with its sibling species L. dahlii.

Introduction

The members of the genus Latrodectus are of considerable importance as their venom is poisonous to mammals. Three species of karakurts (the local Asian name for widow spiders, which means "kara" - black, "kurt" small invertebrate or insect) are known to be distributed in what was formerly the USSR. They are: L. tredecimguttatus ROSSI, L. pallidus O.P.-CAMBRIDGE and L. dahliae LEVI (TYSHCHENKO, ERGASHEV, 1974). Despite numerous publications devoted to the widow spiders of the Soviet Union (see references in MARIKOVSKI, 1956 and ERGASHEV, 1990), this group of spiders is still poorly known. Poor knowledge of karakurts can be illustrated by the present paper, in which a new species is described.