Systematic studies on East Palaearctic Salticidae, III. Remarks on Salticidae of the USSR.

[With 324 text-figures]

One of the difficulties in understanding of the distributional pattern of the e Palaearctic Salticidae is an incomplete information on fauna of eastern partrs of the USSR — Siberia, Amur Valley, Primore, Okhock Sea area. Owing to the exchange of scientists system of the Polish Academy of Sciences and the Academy of Sciences of the USSR, I had the opportunity to study rich collllections of Salticidae kept in the Institute of Zoology of the Academy of Sciences of the USSR in Leningrad (ZIN). These studies appeared very fruitful and instructive, especially when I have supplemented them by study of various specimens from the collections of the Institute of Zoology of the Polish Academy of Sciences in Warsaw (IZPAN), Zoological Museum of the Wroclaw University, as well as from the collections of Dr. E. M. ANDREEVA and the latee Professor D. E. CHARITONOV.

The arachnological collection in the ZIN consists of various materials accumulated during the last century. The most interesting for me Siberian andd Amur-Primore area collection of Salticidae consists of specimens brought by various expeditions and individual collectors; among the most important I can mention the following: SCHRENCCK, MAACK and DITTMAR (part of the GREUBE’s collection), A. CZEKANOWSKI (1874–1875), N. PALCZEWSKI (1891, 19003, 1906), P. SCHMIDT (1902), P. V. OLENIK (1903), V. K. SOLDATOV (1907–19915), A. CZERSKI (1908), W. ŁUKASZEWICZ (1910), I. KUZNETSOV (1911, 19113), V. CHERNOVA (1915), I. PAVLENKO (1915), I. PETROV (1915), M. I. VAL-DAVYEV (1917), A. DYAKONOV and N. FILIPEN (1925), A. EMELIANOV (1925),
N. V. Nasonov (1926), M. I. Tkachenko (1926), A. V. Blanki (1926), A. Grigoriev (1926), Sokolov (1927), A. Martinov, C. Ribo, A. Schtakelberg und I. Soldatov (1927), A. Kirichenko (1929). I. A. Rubcov (1934), B. Koskin (1935), A. A. Richter (1937), Mukhina (1965), V. M. Alekseev (1965). The collection of particular importance appeared large collection made in 1968 by F. E. Popov in Primore. Apart from the above mentioned unidentified collections, there is a part of D. E. Charitonov (mainly from European part of the USSR and some from Central Asia) and S. A. Spassky (southern European part of the USSR) identified collections.

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The present paper is just a preliminary report on systematic problems of Salticidae of the USSR, which leaves plenty of room for further research. The list of species found in the collections is annotated with various remarks, but the most important are drawings attached to remarks on particular species. These give documentation to identification, which is useful in a case of rare and doubtful species, but they will also help other students of Salticidae of that area to identify their collections. The descriptions are unfortunately

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1 The transliteration of names of collectors written on labels mainly in Russian characters presents difficult problems, especially that some collectors could use their names transliterated into Latin alphabet following rules of various languages, especially German, French or Polish. The author apologizes for possible errors in transliterations given above.
very short and will have to be complemented by future comparative and biological studies.

Apart from the Siberian species I give remarks on some European or Central Asiatic species whenever these may complement other studies of mine, published already or not.

The preliminary character of this paper does not allow to elaborate the most important conclusion drawn from these research — the general distributional pattern of Palaearctic Salticidae, and especially the disjunctive areals of numerous species. There are no comments in the arachnological literature on the disjunctive occurrence of many spiders in the Far East (Primor and the Amur Valley in the USSR, also Korea and Japan) and in the South Europe. It appears now that a number of Salticidae does occur in these areas, being absent from the intervening space, some are represented there by very closely related species. It seems that studies of these problems could give us a deeper insight into evolution and history of the Palaearctic Salticidae.

The following lists summarize new facts given in this paper.

New taxa described:

*Dendryphantes biankii* sp. n. — from Yakutia and Mongolia;
*Dendryphantes czekanowskii* sp. n. — Yakutia;
*Icius popovi* sp. n. — Primor;
*Synageles scutiger* sp. n. — Southern European USSR;
*Synagelides zhilcovae* sp. n. — Primor;
*Yaginumaella medvedevi* sp. n. — Primor.

Unknown ♂♀ described:

*Icius difficilis* (Bösenberg et Strand, 1906);
*Marpissa nobilis* (Grube, 1861);
*Sitticus albolineatus* (Kulczyński, 1895);
*Yaginumaella striatipes* (Grube, 1861).

New synonyms:

*Dendryphantes thorelli* Kulczyński, 1895 = *Dendryphantes fusconotatus* (Grube, 1861).

*Menemerus parietinus* Spassky, 1934 = *Menemurus taeniatus* (L. Koch, 1876).

Species new for the USSR:

*Icius abnormis* (Bösenberg et Strand, 1906) — Primor;
*Icius difficilis* (Bösenberg et Strand, 1906) — Primor;
*Sitticus fasciger* (Simon, 1880) — Primor;
*Synagelides agoriformis* Strand in Bösenberg et Strand, 1906 — Primor.
Species new for other countries:

*Dendryphantes fusconotatus* (Grube, 1861) — Mongolia
*Philaeus chrysops* (Poda, 1761) — Japan.

Species new for various regions of the USSR:

*Aelurillus festivus* (C. L. Koch, 1834) — Yakutia;
*Aelurillus v-insignitus* (Clerck, 1758) — Yakutia;
*Bianor aurocinctus* (Ohlert, 1865) — Yakutia;
*Dendryphantes atratus* (Karsch, 1881) — Primor'e;
*Dendryphantes hastatus* (Clerck, 1758) — Krasnoyarsk area;
*Dendryphantes rudis* (Sundevall, 1832) — Yakutia;
*Evarcha arcuata* (Clerck, 1785) — Yakutia;
*Evarcha falcata* (Clerck, 1758) — Primor'e;
*Heliophanus auratus* C. L. Koch, 1848 — Baikal Lake area, Yakutia;
*Heliophanus baicalensis* Kulczyński, 1895 — Primor'e;
*Heliophanus camtschadalis* Kulczyński, 1895 — Primor'e;
*Heliophanus dampfi* Schenkel, 1923 — Leningrad area;
*Heliophanus lineiventris* Simon, 1868 — Primor'e;
*Marpissa pomatia* (Walckenaer, 1802) — Primor'e;
*Myrmarachne formicaria* (De Geer, 1778) — Primor'e;
*Neon reticulatus* (Blackwall, 1853) — Primor'e;
*Pellenes ignifrons* (Grube, 1861) — Yakutia;
*Pellenes tripunctatus* (Walckenaer, 1802) — Yakutia;
*Philaeus chrysops* (Poda, 1761) — Primor'e;
*Phelegra fasciata* (Hahn, 1826) — Primor'e;
*Salticus cingulatus* (Panzer, 1797) — Yakutia;
*Sitticus abololineatus* (Kulczyński, 1895) — Primor'e;
*Sitticus caricis* (Westring, 1871) — Primor'e;
*Sitticus floricola* (C. L. Koch, 1837) — Yakutia;
*Sitticus viduus* (Kulczyński, 1895) — Primor'e;
*Synageles hilarulus* (C. L. Koch, 1846) — Primor'e;
*Synageles venator* (Lucas, 1836) — Primor'e.

**TAXONOMIC SURVEY OF SPECIES**

1. *Aelurillus festivus* (C. L. Koch, 1834).

Primor'e: Lake Hanka — 2 ♀♀, 5 ♂♂; Vladivostok — 1 ♀; Kangaú — 3 ♀♀, 1 ♂; village Slovianka — 1 ♀; Okhoek Sea region: village Chenga — 3 ♀♀, 5 ♂♂, 8 juv.; Yakutia: left bank of the Lena River between villages Zekhina and Skoknina — 1 ♀; near Cherkuskaia — 1 ♂; river Amga — 1 ♂ (ZIN). New for Yakutia.
2. *Aelurillus lutosus* (Tystschenko, 1965), **comb. n.**


Kazakhstan: Kokshetau (Celinograd area, formerly Akmolinsk) — 1 ♀, holotype (ZIN).

The change of combination was approved by Dr. V. P. Tystschenko. The shape of epigynum is shown in fig. 1.

3. *Aelurillus m-nigrum* (Kulczyński in Chyzer et Kulczyński, 1891).

Southern European part of the USSR — Lower Don area — 1 ♂, 1 ♀, det. Spassky (ZIN).

The details of the copulatory organ of ♂ are given in figs. 2—5, that of ♀ in figs. 6—7.

4. *Aelurillus* sp.

Turkmenia: Murgab area, on cotton field, 1 ♂, leg. K. Kamalov.

The species is easily recognizable by white triangle on the frontal surface of the head (fig. 8). The palpal structure is similar to other species of the genus and shown in figs. 9—10. I am not certain of the systematic position of the species.

5. *Aelurillus tartaricus* (Charitonov, 1946).

*Phlegra tartarica* Charitonov, 1946.


I agree with Andreeva (in print) that this species is apparently an *Aelu­rillus*. Its structure of bulbus and embolus is typical for the genus, although the shape of tibial apophysis is rather unusual. A special feature of this species is a bunch of hard and thick spines close to apophysis, which could be mis­taken for a second apophysis during casual examination. The structure of the copulatory organ of ♂ is shown in figs. 11—13, the microscopic slide of ep­igynum, made by Professor D. E. Charitonov himself in fig. 14.


East Siberia: Viluy river area, between Sordonchiakh and Bagardzha Lakes — 1 ♂ (ZIN)

This is the first specimen of the species, reported east from the Ural Mts.

7. *Bianor aurocinctus* (Ohlert, 1865).

Primorie: Kangauz — 2 ♀♀ (ZIN).

Known heretofore from Irkutsk area and from Europe, occurs also in
Korea (Wesołowska, in press). The structure of epigynum is shown in figs 15–16.


Primorie and Amur area: numerous specimens from Nature Protection Reserve Kedrovaya Pad, and river Kedrovka; Lake Hanka area; Kangauz; various localities along Amur River. Also village Malvinskoye near Okhoek Sea (ZIN).

The shape of epigynum is shown in fig. 17.

Genus *Dendryphantes* C. L. Koch, 1837.

The genus contains numerous species in Palaearctic and Nearctic Regions. The differences between the species are inconspicuous and difficult to assess, the intraspecific variation appears to be quite wide. The external structure of epigynum is rather misleading and only its internal parts could give some clue as to the position of particular species, they are, however, heavily sclerotized and inconvenient for study. The outline of the copulatory organs in males are quite uniform, and the only better character is supplied by the structure of embolus and conductor, but differences are not very conspicuous. North American species are particularly poorly known and one may expect at least several species mutual for North America and Eurasia; while resemblances in drawings of some species are quite striking, the relationships of the respective species is not proved yet. All remarks on *Dendryphantes* should be considered provisional until revision of the whole genus will help to clarify these problems.


Primorie: Lake Hanka and the river Kedrovka – 4 ♂♂, 2 ♀♀ (ZIN).

Known heretofore from Japan (Prószyński 1973: 102–104, ff. 15–22). The 3 palpus (figs. 18–23) matches the above mentioned drawings quite well, the females differ, however, by having much narrower copulatory canals and spermathecae (figs. 24–25). The posterior edge of epigynum is not carved (figs. 24, 26–27). These differences call for some caution and more studies on fresh material.

10. *Dendryphantes biankii* sp. n.


The species can be recognized by large, transversally oval epigynum in females (figs. 30, 32) with huge copulatory openings. Spermathecae are heavily sclerotized and consist of a number of very complicated chambers (figs.
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31, 33). The external shape of epigynum resembles somewhat a North American species — *Dendryphantes glacialis* Scheffer, 1906, whose spermathecae are however unknown to me. The male remains unknown.

The species is named in honour of its collector, A. V. Bianki.

11. *Dendryphantes czekanowslcii* sp. n.

Yakutia: 1 ♀ (holotype) — „and flumen Monjero, 66°26', N.; Expeditio ad fl. Olenek, Czekanowski, 1875, V" (ZIN).

The species is characterized by oval, almost round shape of the epigynum (fig. 34), with small copulatory openings, located laterally in the anterior half of the epigynum. The copulatory canals are straight and pass into single coil at the end, being the spermatheca (fig.35). There are no complicated chambers in the spermathecae. The male remains unknown.

The species is named in honour of the collector, A. P. Czekanowski (1833–1876), a prominent Polish geographer and geologist, who deported to Siberia became one of its explorers.


Siberia: 3 ♀♂ — village Bumbunskoye near Kansk, Krasnoyarsk region, on young pine trees (ZIN).

The internal structure of epigynum (fig. 36) matches that of Central European specimens. The specimens were collected in the environment typical for the species also in Poland. New for Siberia.


*Atlas fusconotatus* Grube 1861.


*Atlas medius* Grube 1861.


The external appearance of copulatory organs in both sexes is quite misleading. In males the length of embolus and conductor may be variable, in one specimen their tips are even broken (could it be blocking of the female
openings after copulation?). The variation in these organs and their details are shown on figs. 37, 53–57; in spite of some differences there is no apparent character separating these structures. There is an interesting resemblance of \( \delta \) copulatory organ of *D. thorelli* to *D. jeffersoni* EMERT: CHAMBERLIN and GERTSCH 1929: 11, f. 53, (but not 51), an American form from Lamb’s Canyon, Utah, which may suggest close resemblance of both forms.

The external shape variation in epigynum of females (figs. 38, 44, 46, 48, 50, 58) is also rather misleading. This is due to lack of distinct external structures, with an exception for two large grooves separated by a broad ridge. The margins of these grooves may appear more or less depressed, broader or narrower, the ridge may be more or less convex — all this gives changes in appearance. The spermathecae are difficult to study because of heavy sclerotization of their walls, they consist of a number of irregular chambers, coiled and interwoven, and they also may appear variable. The copulatory openings, located in the large, arched and sclerotized grooves, are quite similar in all forms, the same can be said on the broad transversal canal running from the openings to the mass of chambers (figs. 45, 47, 49, 51–52, 59, 60). The proportions of size of the spermathecae to the copulatory openings seem to be constant and characteristic for the species. The abdominal pattern, very characteristic for the genus, is shown on figs. 61–63.

The interpretation of the above described variation and selection of good taxonomic characters for this species cannot be, presumably, done on preserved specimens only, and should be complemented by study of new material and field observations.


Primore: 1 \( \delta \), 29. V. 1968, 1 \( \varphi \), 5. VIII. 1968 — River Kedrovka, from the litter of a deciduous forest on southern slope; \( \delta \), VI. 1928 — Yakovlevka, Spassk area (ZIN).

The details of \( \delta \) copulatory organs are shown in figs. 66–68, epigynum and its internal structures in figs. 64–65.


*Attus flavoater* GRUBE, 1861, syn. n. 


Primore: 2 \( \varphi \), 2 \( \delta \) — 6. VI. — 5. VIII. 1968, River Kedrovka, litter of a deciduous forest on southern slope; 1 \( \delta \) — Suputinski Reserve; 1 \( \delta \) — Teishgla (ZIN).

The \( \delta \delta \) differ from European forms in having pedipalpal and leg I femora yellow, the coloration of remaining segments of leg I (fig. 74) agrees with European specimens. The external appearance of epigynum is shown in fig. 69, the \( \delta \) copulatory organ in figs. 71–73.

*Heliphanus nigritus* Thorell, 1875.

Southern European USSR: Lower Don area — 1 ♂ — "*Heliphanus nigritus* Thor., Taganrog area — Artemovka, VII. 1912" — coll. SPASSKY (ZIN).

I am unable to check Spassky’s identification of this species, so the change of combination is provisional. The details of ♂ copulatory organ are shown in figs. 75–77.

17. *Euophrys obsoleta* (Simon, 1868).

Southern European USSR: Lower Don area — 1 ♀ — either Novocherkask or Berdiansk; Crimea — 1 ♂ — Totman (ZIN).

The structure of epigynum is shown in figs. 78–79; that of ♂ copulatory organ in figs. 80–83. Millidge and Locket 1955 have described closely related species *E. browningi*, the differences between both forms are not yet clear for me.

18. *Euophrys thorelli* Kulczyński in Chyzer et Kulczyński, 1891:

There is a single ♀ of this species in the Spassky’s collection in ZIN, with an illegible label. According to Charitonov (1936: 217) Spassky has reported that species from „Turkestan: Semiretschie” — that is presumably from Semireche in the Alma-Ata area, Kazakhstan, but I cannot be sure whether it is exactly the specimen. The external appearance of epigynum is shown in fig. 70.


Primore: numerous specimens from Kedrovaya Pad’, Suputinski Reserve, Kangauz, Lake Hanka area and several localities in the Ussur area (ZIN).

One of commonest Salticidae in that area. The shape of epigynum is shown in figs. 84 and 85, a diagram of the sagittal section of epigynum in fig. 86.


Kazakhstan: Kokshetau, Akmolinsk (present Celinograd) area, on hill’s slope covered with *Artemisia* sp. — 1 ♀ — holotype, under stone, 1 ♂ — paratype — swept on *Artemisia*, coll. Tystschenko (ZIN).

The male and female appear to be not conspecific. The ♂ matches *Pellenes limbatus* as shown by Kulczyński (1895: 43–46, ff. 19–21), so it should be reidentified as such. The systematic position of ♀ is not yet clear to me, because I was not able to make microscopic preparation of its epigynum. The ventral view of epigynum is shown in fig. 87, the dorsal view of spermathecae (surrounded by soft tissues) in fig. 88. The dorsal abdominal pattern of ♀, with two black longitudinal stripes, separated by the white one, resembles some *Pellenes* spp.

Primore: Lake Hanka, Kangauz, Kedrovaya Pad’ and Suputinski Reserve; Amur Valley — various localities down to estuary; Yakutia — river Chona; Baikal Lake area — river Kuytun; Krasnoyarsk area — village Bunbuyskoe (ZIN).

All together 34 ♂♂ and 21 ♀♀, which means that the species is really common in the East Siberia and especially Primore.

22. *Evarcha falcata* (Clerck, 1758).

Primore: a few specimens from Kangauz; Amur Valley — a few specimens from various localities along the river in its median and lower course; Yakutia — somewhere along Lena River (Shtcheki and Sondal-hu); Baikal Lake area — Irkutsk and some place near the Lake; Krasnoyarsk area — village Bunbuyskoe (ZIN).

All together 14 ♂♂ and 12 ♀♀ — that is about half of the number of *E. arcuata* found in the same area of the USSR; in Primore alone there were collected only 3 adult specimens of *E. falcata* and 37 of *E. arcuata*. Taking into account that in Central Europe both species seem to be equally numerous and equally easily collected in the same environments, we may conclude that there is distinct quantitative decrease of *E. falcata* in the Far East of the USSR, while *E. arcuata* feels there at home.

*E. falcata* is a Holarctic species represented in Palaearctic and Nearctic by subspecies *E. falcata falcata* and *E. falcata hoyi* respectively. I did not try to identify the subspecific status of the Far Eastern specimens because criteria of separation of these subspecies are not yet worked out.

23. *Helophanus auratus* C. L. Koch, 1848.

Baikal Lake area: 5 ♂♂, 3 ♀♀ — Chevirkuy; Yakutia — 1 ♀ — river Chona, near Semenove; Kazakhstan — 1 ♂, 1 ♀ — "Helophanus nigriceps", Semireche, Alma-Ata region, coll. Spassky" (ZIN); Turkmenia — 1 ♂ on cotton field in the Murgab area.

The Siberian specimens correspond with *H. auratus*: Harm 1971: 65–65, ff. 22–26. The genital organs of specimens from Kazakhstan are shown in figs. 89–94. The ♂ from Turkmenia differs somewhat by the shape of the upper part of bulbus (figs. 95–97), so its identification is provisional pending further studies.


Amur Valley: 2 ♀♀ — Ulunga, on the road to Zeya, 18. V. (ZIN).

The external and internal structure of epigynum is shown in figs. 98–100 and they agree with type specimens from Kultuk (Baikal Lake shores) (IZPAN). Known heretofore from Baikal Lake area only.


Yakutia: Letnik (summer pasture) Abiy — 1 ♀, 22. VII. 1925 (ZIN).

http://rcin.org.pl
Known heretofore from Kamchatka only. The epigynum of the Yakutia specimen resembles holotype externally, some differences in the position of spermaticae are presumably due to the displacement during preparation. The structure of that organ is shown in figs. 101 and 102. These structures should be studied again on fresh specimens.

26. **Heliophanus dampfi** Schenkel, 1923.

Northern European USSR: 1 ♂ — Sablino near Leningrad, 4. VII. 1926, det. Charitonov (ZIN).

The internal structure of epigynum is shown in fig. 103, it matches exactly specimens from Czechoslovakia, identified by F. Miller. New for the Leningrad area.

27. **Heliophanus kochi** Simon, 1868.

Southern European USSR: 1 ♀ — Kekeneschch, Crimea (ZIN).

The epigynum is shown in figs. 104–106, it matches well the preparation made by F. Miller from Mohelno, Southern Czechoslovakia.

28. **Heliophanus lineiventris** Simon, 1868.

Primore and Amur Valley: 7 ♀♂ — Kangauz, Hanka Lake, village Troickoye and Malvinskoe (the latter presumably close to Amur estuary), Southern European USSR — Lower Don area: 1 ♂ — Novocherkask, coll. Spassky (ZIN).

The ♀♀ correspond well with the drawings of Cantarella (1974: 164–165, ff. 9–11, 19–21), the identification of the ♂ by Spassky was not verified by myself. The species in new for Primore and Amur, and this identification extends the distributional area of this species to the eastern ends of the continent. The epigynum and its internal structures are shown in figs. 107–109. It resembles *H. kochi* in general outline, but differs in straight copulatory canals. The structure of the ♂ copulatory organ is shown in figs. 110–114. The species lives on grasses and shrubs.

29. **Heliophanus simplex**? Simon, 1868.


The species corresponds with Miller’s specimen from Czechoslovakia, but differs from the specimens from Corfu in Dahl’s collection in Berlin. Harm (1971: 77–78, ff. 50–51) gave drawings of the ♂, but unfortunately not of the ♀ of *H. simplex*. In this circumstances I am not sure of my identification, which should be checked again during revision of the genus. The epigynum of the studied species is shown in figs. 115–116.

30. **Heliophanus tribulosus** Simon, 1868.? Kazakhstan: 1 ♀ — Semireche in the Alma-Ata area, identified by Spassky as *H. cambridgei* (ZIN).
The epigynum is shown in figs. 117-118. I was unable to compare it with HARM (1971, figs. 41-42), as well as with a specimen in DAHL’s collection in Berlin because of differences in drawing technique. The identification is provisional.


Primore and Amur Valley: 14 ♀♀, 6 ♂♂ from Kedrovaya Pad’ Reserve, Kangauz, Hanka Lake, Ulunga, Khabarovsk area (ZIN).

Collected by sweeping on grasses and low vegetation in a mixed forest and presumably in other biotopes. The structure of epigynum is shown in figs. 119-122, the ♂ copulatory organ in figs 123-129. These structures agree with type specimens from the Kulczyński collection in IZPAN.

32. *Icius abnormis* (Bösenberg et Strand, 1906), *comb. n.*

*Jotus abnormis* (Bösenberg et Strand 1906).

Primore: 14 ♀♀, 1 ♂ — Baraudinsk, Kangauz, Spassk, Tigrovaya, Viatскойe, Vladivostok (ZIN).

Collected by sweeping on grasses. The epigynum is shown in fig. 130, it resembles to some extent YAGINUMA’s specimens from Japan. The identification should be considered provisional.

33. *Icius castriesianus* (Grube, 1861), *comb. n.*


Primore: 32 ♂♂, 72 ♀♀ — Kedrovaya Pad’ Reserve, Kedrovka River, Kangauz, Hanka Lake (ZIN).

The external appearance of a rather dark coloured ♂ is shown in fig. 131. Black the entire prolateral surface of femur I and thick black lines on femora II and III appear to be characters separating the species from two other related ones. The structure of o copulatory organ is shown in figs. 132-134, the diagnostic character being tibial apophysis, bent off the bulb when seen in ventral or dorsal position. The same structures in a specimen with copulatory organ twisted into unusual position is shown in figs. 135-137.

I am somewhat at lost with ♀♀ of this species, quite numerous in the ZIN collection. None of them, however, agrees with female of allegedly of the same species from Rumania (fig. 142). I made drawings of 2 different ♀♀ from Primore at the beginning of my studies, one of which I have identified subsequently as *Icius difficilis* (figs. 143-144), the other being quite special and is shown in figs. 154-155. I have drawn these conclusions after I have completed these research and having no access to the collection I cannot tell which of these females is representing all 72 specimens I have mentioned in my notes. So the whole material should be checked again in order to mach proper ♀ with the above described ♂.
There is another point which needs clarification. It appears that $\delta^\sigma$ from Primore differ in structure of their copulatory organ, especially that of broadened embolus, from the specimens from Rumania (figs. 138–141). I cannot comment yet on the significance of these differences, but one can wonder whether both forms are really conspecific. This calls for further revisional study.

34. *Icius difficilis* (Bösenberg et Strand, 1906), *comb. n.*

*Johnus difficilis* Bösenberg et Strand 1906.

Primore: 2 $\varphi^\varphi$, 1 $\sigma$ — Hanka Lake, Yakovlevka near Spassk, Suputinski Reserve (ZIN).

The epigynum resembles closely *I. difficilis* specimens from Japan (Yaginuma coll.) and is shown in figs. 143–144. The $\sigma$ was collected together with a $\sigma$ of *Icius castriesianus*, which means that both live in the same environment. I assume that it is $\sigma$ of *I. difficilis*, unknown heretofore, its external appearance is shown in fig. 146 — note thin black line on the prolateral surface of femora I-IV. Its copulatory organ is analysed in figs. 147–149 — note elongated and thin tibial apophysis.

35. *Icius popovi* sp.n.

Primore: 1 $\sigma$ — holotype, Kangauz, Shkotovo area, sweeping on dense grass and shrubs, 8. VII. 1968, leg. F. E. Popov; 2 $\delta^\delta$ — paratypes — Kangauz, 1–5. VII. 1968; Ussuri: 1 $\sigma$ — paratype, Vinogradovka, V. 1929, leg. A. Kirichenko. Siberia: 1 $\delta$ — Kuytun, Irkutsk region, VII. 1934, leg. I. A. Rubcov (ZIN).

The external appearance is shown in fig. 150. The easy separating character appears to be the occurrence of two black spots on prolateral surface of femora I–II (compare with two previous species). The copulatory organ is analysed on figs. 151–153, the diagnostic character is tibial apophysis bent towards the bulbus and not off the bulbus, as it was in *I. castriesianus*. The $\varphi$ remains unknown.

The species is named in honour of the collector, Mr. F. E. Popov, who has made large collection of spiders from Primore, kept in the ZIN.


Primore: 1 $\sigma$, 3 $\varphi^\varphi$ — Kedrovaya Pad’ Reserve, Suputinski Reserve, Ussuri area: 3 $\delta^\delta$, 2 $\varphi^\varphi$ — Slovianka, Vinogradovka, confluence of rivers Kin and Ussuri (ZIN).

The structure of $\sigma$ copulatory organ is analysed in figs. 156–163, the separating characters are apparently teeth on tibial apophysis. The structure of epigynum is shown in figs. 164, 166–168, the abdominal pattern in fig. 167.

The only edological information given on the label is collecting of one specimen on grass or bush in forest, and of other inside a house.
37. *Marpissa nobilis* (Grube, 1861).

Primore: 2 ♂♀, ♀ — Kamen Rybolov on the Hanka Lake, leg. Czerski (ZIN).

The structure of ♂ copulatory organ is shown in figs. 171-175 and it matches the holotype quite well (Prószyński 1971: 212-214, ff. 16-19). The ♀ was not described yet, her epigynum is shown in figs. 176-177. The internal structure of epigynum is quite special and distinctly different from related species. A single ♀ of this species is kept in the series of 4 syntypes of *Marpissa magister* (Karsch, 1879) kept in the Senckenberg Museum, Frankfurt, a. M. Professor Yaginuma has kindly communicated me recently that he found a similar ♀ in Japan, I have benefited from his remarks on characters of this species.


Kazakhstan: 1 ♂ (holotype) — on Salsola sp., Kokshetau in the Celinograd administrative area (formerly Akmolinsk), 13. VI. 1957, leg. V. P. Tystschenko (ZIN).

The separate specific status of this species was questioned by Nemenz (1967: 4, f. 1), who has proposed to synonymize it with *Mithion canestrinii* (Ninni, 1868). Close examination of the holotype (figs. 178-181) has yielded some minor differences, for instance in shape of the tibial apophysis, which may be quite variable (see also figs. 182-183 of related forms of uncertain position from Spassky’s collection), but did not answer the question put by Nemenz. There is a group of closely related forms, including *M. canestrinii*, *M. elongata*, *M. magister*, *M. obscura* (Kronenberg 1875: 46-47, t. 5, f. 33, described from Samarkand) and also a new species from Korea and Japan. It seems that finding out specific status of these forms needs revision of all of them, and study of fresh specimens. The study of unknown ♀ of the species described by Tystschenko may be especially important.

As far the above mentioned specimens from Spassky’s collection from either Dniepropetrovsk or Berdiansk, the first seems to be similar to *M. salsophila*, the second could be *M. canestrinii*.


*M. sibirica* Prószyński, 1976 (nom. nudum).

Primore and Amur Valley: 23 ♂♂, 23 ♀♀ — Kedrovaya Pad’, Khutara Bay in the Tatar Sound — 46°, Den, Dzhanga, Dungari, Lake Gelga, Marvinskoye, Malvinskoye, Navozovo, River Beshennaya near Zimmermanovka, Sakhode, Sofiyskoye, Tambovskoye, Ulunga, Vinogradovka; Yaktia: 1 ♂ — Lake Ceedeyonunta (?) (1 day from Lotenga on Lena River); Baikal Lake area: 1 ♂ — Kuytun; Kraunoyarsk area: 9 ♂♂, 9 ♀♀, 12 juv. — Village Bunbunskoye, near Kansk (ZIN).

This apparently quite common species, living mainly on grass and presumably close to water, is quite similar to *Marpissa radiata* (Grube, 1859) from which differs in much more complicated loops of the copulatory canal in females. The structure of epigynum is analysed in figs. 192-199, that of
copulatory organ in males in figs. 184–191. The general appearance of females is shown in fig. 169. I am less certain about specific differences in males. The species should be, however, compared with *M. radiata* and only such study could give clear differences and characters.

I suspect that *M. radiata* reported by Sychevskaya 1935 (Charitonov 1936) from Kamchatka, and by several authors from Siberia (Tomsk, Krasnoyarsk) may belong in fact to this species. It would be necessary to check again these identifications in order to find out their real geographical distribution.

40. *Menemerus marginatus* (Kroneberg, 1875).

Uzbekistan: 1 ♀, 1 ♂ – Samarkand, coll. Spassky (ZIN).

I accept identification made by Spassky, without being able to check it. There is some resemblance to Kroneberg’s drawings 34a–d, as well as to ♀ of *Pellenes denisi* Schenkel, 1963: 440–441, f. 252. The species is, however, a *Menemerus*. The epigynum of the Spassky’s specimen is shown in figs. 200–201, the ♂ copulatory organ in figs. 202–206.

41. *Menemerus semilimbatus* (Hahn, 1827).


Epigynum of this species is shown in figs. 207-208.

42. *Menemerus taeniatus* (L. Koch, 1876).

*Menemerus parietinus* Spassky 1934: 135, syn.n.

Black Sea shores: Khosta and Sukhumi, 1 ♂, 1 ♀ (syntypes?) and remnants of several specimens, wrapped in pieces of paper, coll. Spassky (ZIN).

The specimens match Simon’s (1937) drawings ff. 1934–1936. The epigynum is shown in figs. 214–216, the ♂ copulatory organ in figs. 209–213.


Turkmenia: 1 ♂ – Murgab area, on cotton field, leg. K. Kamalov.

The copulatory organ is shown in figs. 217–218.

44. *Myrmarachne formicaria* (De Geer, 1778).


The external abdominal pattern is shown in fig. 219, epigynum in figs. 220–221. New for Eastern USSR.

45. *Myrmarachne lugubris* (Kulczyński, 1895).

Primore: 4 ♀♀ – Hanka Lake (Kamen Rybolov), Kangauz (ZIN).
The specimens match type specimens kept in IZPAN. The epigynum (fig. 222) is somewhat special, but its internal structure (fig. 223) indicates close relationships with *M. formicaria*.

46. *Neon levis* (SIMON, 1871).
Crimea: Kessler's Forest near Simferopol, oak leaves litter, 1 ♀, 20. IV. 1924 (ZIN).
The structure of epigynum is shown in figs. 224–226.

47. *Neon reticulatus* (BLACKWALL, 1855).
Primore: 2 ♀♀ – River Kedrovka (ZIN).
The epigynum is shown in fig. 227. New for Primore.

Okhock Sea area: 4 ♂♂ – Village Chega, in a *Larix* sp. forest; Yakutia: 1 juv. ♀ – Lake Deedeyonuuta (?) (1 day from Lutenga on the Lena River), 1 ♀ – Lake Kurdan (64°47'N, 119°55'E); 2 ♀♀, 2 ♂♂ – Khamuragan, Ardyn-namok ulus (ZIN).
The epigynum is shown in figs. 228. New for Yakutia. According to personal communication from Mr. W. MADDISON, the species is identical with North American *Pellenes laggani*.

49. *Pellenes limbatus* KULCZYŃSKI, 1895.
Kazakhstan: 1 ♂ (paratype of *Evarcha albopilosa* TYSCHENKO, 1965) – Kokshetau, Akmolinsk (present Celinograd) area, swept on *Artemisia* sp., leg V. P. TYSCHENKO.
New for Kazakhstan (see remarks on *Evarcha albopilosa* — above).

Crimea and nearby area: ♀♀, ♂♂ – Sevastopol and Berdiansk areas (identified as *P. bedelli* by SPASSKY; 2 ♀♀ – Gastra (ZIN).
The epigynum of ♀ from SPASSKY collection is shown in figs. 229–230, the ♂ copulatory organ in figs. 231–234. The latter differs from the drawings 43–44 in PRÓSZYŃSKI (1971) in embolus fused with conductor.

51. *Pellenes tripunctatus* (WALCKENAER, 1802).
Yakutia: 1 juv. ♂ – between lakes Mirchandon (64° 56'N, 119° 56'E) and Eyitdyaryaty (63° 13'N, 119° 40'E); Kazakhstan: 3 ♀♀ – Alma-Ata, coll. SPASSKY; Crimea 1 ♂ – Feodosia (ZIN).
The species is new for Yakutia, but was already reported from Kamchatka (CHARITONOV 1936). The epigynum of ♀ from Alma-Ata is shown in fig. 235. E. M. ANDREEVA (1975) reports 1 ♂ of either somewhat modified *Pellenes tripunctatus* or very closely related species from Luli-Kharvi, Tadjikistan. The relationships between both forms and possible border of their areals await further investigations.
52. *Pellenes* sp. 1.

Crimea: 1 ♀ — Totman, 14.–20. V. 1913 (ZIN).

I abstain from identification of this species, because South European *Pellenes* are not sufficiently known. The epigynum is small (figs. 237–238) and resembles drawings 1991 and 1998 of Simon (1937) which unfortunately are not precise enough. The external appearance is shown in fig. 236.

53. *Pellenes* sp. 2.

Turkmenia: Murgab area, on cotton field, 1 ♀, leg. K. Kamalov.

The epigynum (fig. 239) resembles *Pellenes nigrociliatus* or *P. geniculatus*, the coloration of abdomen is, however, quite special (fig. 240).

54. *Philaeus chrysops* (Poda, 1776), syn. n.

*Pellenes unipunctatus* Saito, 1900: 160, ff. 226a–b.

Primore and Ussuri region: 1 ♀, 1 ♂ — Lake Hanka (Kamen Rybolov), 2 ♀, 1 ♂, Nikolskoye near Ussuriysk — 6 ♀, 2 juv. — River Suchan; Crimea: — 2 ♀, 6 ♂ — Keke-nesh, 1 ♂, 1 ♀ — Gastra (ZIN).

The species displays distinct sexual dimorphism in coloration of abdomen: in males red with black streak (fig. 248), in females, as well as in immature males, grey with two white, parallel, longitudinal lines (figs. 241, 247). This dimorphism has caused some confusion in the taxonomy of the genus.

The details of the ♂ copulatory organ are shown in figs. 249–250, 251–253, the epigynum of ♀ are shown in figs. 243–246. The unusual faded coloration of a ♂ from Primore is shown in fig. 254; it resembles coloration of Saito’s *Pellenes unipunctatus* from Japan. The drawing of copulatory organ viewed in the same position as on Saito’s drawing 226b (fig. 253) proves that both forms are conspecific and their names should be therefore synonymized.

The last, heretofore, collecting point east from the Ural Mts., was in the upper Irtish River basin, where it has been found by Dr. L. G. Savielyeva, together with an undescribed but similarly coloured species and another species coloured black (personal communication from Dr. Savielyeva). So the species can be considered new for both Primore and Japan.

55. *Phlegra fasciata* (Hahn, 1826).

Primore: 1 ♂ — Kangauz, in a dry valley; Yakutia: 1 ♀ — stream Ongkuchakh, confluent of the Manda River (ZIN).

The copulatory organ of ♂ is shown in figs. 255–256, the abdominal pattern of ♀ in fig. 257 and its epigynum in figs. 258–259. The species is new for both Primore and Yakutia.

56. *Phlegra fuscipes* KULCZYŃSKI in CHYZER ET KULCZYŃSKI, 1891.

Southern European USSR: ♂♂, ♀ — Artemovka, Don area, coll. Spassky (ZIN).
The structure of this species is rather insufficiently known, so I give the detailed drawings. The structure of the ♀ copulatory organ is shown in figs. 260-264, the structure of epigynum in figs. 265-267. The median ridge in epigynum appears variable and may be absent entirely.


The copulatory organ of single ♀, I have seen, is shown in figs. 268-270. The only ♂ I have got, has removed and lacking epigynum.


Turkmenia: 2 ♂♂ — Murgab area, on cotton field, leg. K. Kamalov.

The palpus of this remarkable species is shown in figs. 271-272, the details of its copulatory organ in figs. 273-274, cheliceral dentition in fig. 275.

59. *Pseudicius vulpes* (Grube, 1861).

Primore and Ussuri area: 9 ♀♀, 13 ♂♂ — Kedrovaya Pad', Kangauz, Khabarovsk, Mikhailovskoye, Shkotovo, Slovianka, Ussuriysk (ZIN).

The external appearance of ♂ is quite striking and may help in identification; it is shown in fig. 276. The epigynum is shown in figs. 277-278.

60. *Salticus cingulatus* (Panzer, 1797).

Yakutia: 1 ♂, 1 ♀ — Khamurgan, Arbin Namok ulus (ZIN).

The male copulatory organ is shown in figs. 279-282. The species has been reported heretofore from the Krasnoyarsk area and is new for Yakutia.

61. *Sitticus albolinealus* (Kulczyński, 1895).

Primore: 40 ♀♀, 19 ♂♂ — mainly from River Kedrovka and Kedrovaya Pad', a few also from Kangauz (ZIN).

The ♀ has not been described yet; its epigynum is shown in figs. 283-284, its abdominal pattern in fig. 285. The abdominal pattern of ♂ is quite special, different from ♀ and from other related species; it is shown in fig. 289. The structure of ♂ copulatory organ is shown in figs. 286-288.

The labels written by the collector, Mr. E. F. Popov, give some picture of biology of this species. The majority of specimens was collected from among the stones strewn on shores of streams and rivers, the environment was described as forest, either mixed or broad-leaved, in one case as sunny shore. Some specimens were taken from under the stones, three cocoons (contained 30 and 35 eggs respectively, and 33 spiderlings in the third) were covered with sand or fine gravel, the ♀♀ remained in cocoons — apparently protecting them.
One may assume that they were laid under the stones in the same way as European \textit{Sitticus rupicola} does (except that \textit{S. rupicola} is mountain dweller, not connected with stream shores).

Known heretofore from Baikal Lake shores, new for Primore.


Primore — Liman of Amur: 1 ♀ — village Cherrikh, between peninsulas Petakh and Ozerpakh (ZIN).

Known heretofore from Europe and Kamchatka, common but rarely collected, it may be expected to occur in Siberia as well.

63. \textit{Sitticus fasciger} (Simon, 1880).

Primore: 3 ♀♀, 3 ♂♂ — Hanka Lake (Kamen Rybolov), Kangauz, River Kedrovka; Yakutia: 1 ♀ — Lake Deedeyonuuta (?), near Lutenga on Lena River (ZIN).

The species has been known heretofore from Peking, China and Darasun (East Siberia) (as \textit{S. godlewskii} Kulcz.) introduced in 1950s into the USA (Prószynski 1968: 391-407). New for Primore.

64. \textit{Sitticus finschi} (L. Koch, 1879).

Yakutia: 1 ♀ — „ad flumen Monjero 66°26’’ (ZIN).

Known previously from Northern Siberia (Salekhard and River Bytantay near Verkhoyansk), in North America distributed from Alaska to New England.

65. \textit{Sitticus floricola} (C. L. Koch, 1837).

Primore and Amur Valley: 2 ♂♂ — Primore (without exact locality), Zimmermanovka near confluence of the Beshennaya River into Amur; Yakutia: — 2 ♂♂, 7 ♀♀ — village Ugalyak (64°7’N, 120°8’E), Tulaginskiy Nasleg, River Amga (ZIN).

A Holarctic species, in Eastern Palaearctic known already from Western Siberia, Transbaicalia and Ussuri, but not from Yakutia. Represented in Palaearctic and Nearctic by separate (?) subspecies; as identification characters for these subspecies have not been worked out, I have abstained from precisely subspecific status of the studied specimens.

66. \textit{Sitticus lineolatus} (Grube, 1861).

Yakutia: 1 ♀ — between Lakes Sordonchiakh (64°15’N, 121°45’E) and Bagardja (64°03’N, 120°55’E) (ZIN).

Holarctic species, known already from Viluy River (Prószynski 1971).

67. \textit{Sitticus viduus} (Kulczyński, 1895).

Primore: 3 ♂♂, 2 ♀♀ — Kedrovaya Pad’, 600 m above sea (ZIN).

New for Primore, known heretofore from Baical Lake shores and North Korea (Prószynski, in prep., Wesołowska, in press.).
Turkmenia: 1 ♂ — Murgab area, on cotton field, leg. K. Kamalov.
The ♂ is easily recognizable by an unusually long tibial apophysis, forked on the tip (fig. 290).

68. *Synageles hilarulus* (C. L. KOCH, 1846).
Primore: 1 ♀ — Kangauz (ZIN).
The epigynum is shown in fig. 291. Known heretofore from Europe and Uzbekistan (Samarkand), new for Primore.

70. *Synageles scutiger* sp. n.

As I could not find any description of *Synageles scutiger* in the literature, I decided to describe as new species the so labelled specimens from the Spassky collection. I assume that Spassky has recognized the species as new but failed to describe it.

The species differs from all other known to me *Synageles* by long and robust tibial apophysis, directed somewhat dorsad and broadly rounded at the tip. The details of the copulatory organ are shown in figs 293–297, the general appearance is shown in fig. 292.

71. *Synageles venator* (Lucas, 1836).

The specimen from Grube collection is somewhat confusing, it resembles *Synageles* both in general appearance (fig. 298) and general structure of the copulatory organ (figs. 299–306). However, the inflated process on the anterior part of the bulbus does not resemble any species known in this genus. To explain this I have boiled in the KOH copulatory organ of another *Synageles venator* from Poland and have found that whitish soft membrane in the anterior part of the bulbus became inflated in a very similar manner (figs. 305–306). I assume therefore that specimen from Nikolaevsk was caught with an inflated bulbus, during copulation perhaps.

I wish to call attention to very different appearance of tibial apophysis in male *S. venator*, when seen in various positions.

Primore: 7 ♂♂, 8 ♀♀ — Kedrovaya Pad', River Kedrovka, Suputinski Reserve (ZIN).
The ♀ is identical with type specimen kept in Senckenberg Museum in Frankfurt a. M., and with Japanese specimens collected by Professor
T. YAGINUMA. The species resembles also Tagoria cavaleriei SCHENKEL, 1963: 393-397, ff. 227a-k; both forms are apparently congeneric, but existing drawings do not allow conclusions whether they are also conspecific.

The details of copulatory organ of the ♂ are shown in figs. 307-310, epigynum of female in figs. 311-312, the abdominal pattern in figs. 313-315. According to labels the species lives in litter of a deciduous forest, in one case on a sunny slope, 2 ♂♀ were caught by sweeping. New for the USSR, known heretofore from Japan, discovered also in North Korea (WESOŁOWSKA, in press).

73. Synagelides zhilcovae sp. n.

Primore: 1 ♀ (holotype) — middle course of the Kedrovka River, between stones on the shore, 11. VI. 1968, leg. P. E. POGO (ZIN).

Resembles the previous species in general appearance, differs by epigynum more narrow (fig. 316), sloping lateral edges of which are limited anteriorly by rounded folds with median ends drawn rearwards. In comparison with the previous species the anterior parts of the copulatory canals are much broader and spermathecae are much closer to these broad parts (fig 317). The male remains unknown.

The species is named in honour of Dr. L. A. ZHILCOVA, the curator of the arachnid collection in the ZIN.


A few years ago I had the opportunity to discuss with Professor Takeo YAGINUMA the systematic position of his species Pellenes ususudi and have suggested classification of it into the genus Pellenes. After examination of new material from Primore and Korea I came to the conclusion that these spiders are distinct from Pellenes and should be placed in a new genus of their own, apparently closely related to Pellenes. I named this new genus Yaginumaella in honour of Professor Takeo YAGINUMA.

The genus is characterized by the shape of ♂ copulatory organ having single, undivided embolus and the cymbium flat and broad in a way comparable with American Maevia. The epigynum is rounded, with two peculiar, sclerotized flaps in the median anterior part, serving apparently as an attachment place during copulation. The copulatory canals are broad and bag-shaped, passing either into a few broad coils or sclerotized chambers. The epigynum is therefore so special, that it cannot be mistaken with that of any other genus known to me.

The type-species is Pellenes ususudi YAGINUMA, 1972, apart from it two following species should be also included into the genus. These are Pellenes striatipes (GRUBE, 1861): PRÓSZYŃSKI 1971: 219, ff. 28-29, into which I include provisionally 2 ♀♀ from Primore, described below, and Plexippus incognitus

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DOENITZ ET STRAND, IN BÖSENBERG ET STRAND, 1906 FROM JAPAN. THERE IS ALSO AN UNDESCRIBED SPECIES FROM JAPAN IN THE COLLECTION SENT ME BY PROFESSOR YAGINUMA AND ANOTHER ONE DESCRIBED BELOW FROM PRIMORE.

74. *Yaginumaella medvedevi* sp. n.

Primore and Ussuri: 90 ♂♂, 87 ♀♀ - Kedrovaya Pad’and River Kedrovka, single specimens also from Kangauz, Tigrovaya, Vladivostok, Vinogradovka, Kurile Islands: 1 ♂, 1 juv. ♀ - Kunashir Island, village Otradnoye (ZIN). North Korea: numerous ♀♀, ♂♂ - Myohyangsan, Hamjong-pukto, Onpho (IZPAN).

All the above mentioned specimens should be considered paratypes, with an exception for 1 ♀ with epigynum mounted into microscopic slide, collected from the upper course of Kedrovka River by sweeping by Mr. F. E. Popov on 12. VIII. 1968 — being holotype; 1 ♂ from Kedrovaya Pad’, collected by Mr. F. E. Popov by sweeping on 10. VIII. 1968 is the allotype.

According to labels the majority of specimens lives in grass and shrubs, from which they were collected by sweeping; a few specimens were also taken from the forest litter.

The species can be recognized by the oval, almost round epigynum with broad flaps behind the copulatory opening, broad copulatory canals making 3/4 of a circle and passing then into heavily sclerotized spermathecae containing a number of irregular chambers (figs. 318-319). The structure of the ♂ copulatory organ is shown in figs. 320-322, it differs from other species by posterior origin of the embolus and more broad, flattened cymbium.

75. *Yaginumaella striatipes* (Grube, 1861) (?).

Atius striatipes Grube, 1861.

Primore: 1 ♀ Shkotovo area, 300-400 m above sea, with a cocoon attached to the needles of *Abies* sp., 3. VII. 1968, leg. F. E. Popov; Liman of Amur (Tatar Sound) shores: 1 ♀ Ozerpakh Peninsula, 14. VII. 1915, leg. C. Chernova (ZIN).

An apparently coniferous tree dweller, adapted to cooler climate. Differs from the previous species by much narrower position of sclerotized flaps of epigynum (fig. 323), broader and straight copulatory canals, coming radially and passing into a few narrow, irregular coils whose sclerotization does not differ from that of anterior parts of the copulatory canals (fig. 324).

I put these ♀♀ provisionally into *Yaginumaella striatipes* (Grube, 1861) whose ♂ was already described from the same geographic region as the second ♀ (Nikolaevsk na Amure) — see Prószynski 1971: 219, ff. 28-29. I hope that this classification will be confirmed by new material.

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Fig. 1 *Aclurillus lutosus* (Tyschtschenko, 1965) — holotype, epigynum.

Figs. 2-5. *Aclurillus m-nigrum* (Kulczyński in Chyzer et Kulczyński, 1891). ♂ — copulatory organ.
Figs. 6–7. Aelurillus m-nigrum. Epigynum and its internal structures.

Figs. 8–10. Aelurillus sp. ♂ – frontal view and palpus.
Remarks on Salticidae of the USSR


Bianor aurocinclus (Ohlert, 1865). Epigynum and its internal structures.

Garrhotus xanthogramma (Latreille, 1819). ♀ — epigynum.

Fig. 17. Garrhotus xanthogramma (Latreille, 1819). ♀ — epigynum.

Figs. 30–31. *Dendryphantes biankii* sp. n. ♂ — holotype from Yakutia, epigynum and its internal structures.

Figs. 32–33. *Dendryphantes biankii* sp. n. ♂ — paratype from Mongolia, epigynum and its internal structures.

Figs. 34–35. *Dendryphantes czekanowskii* sp. n. ♂ — holotype and its internal structures.
Fig. 36. *Dendryphantes hastatus* (Clerck, 1758). ♀ — internal structures of epigynum

Figs. 37-43. *Dendryphantes fusconotatus* (Grube, 1861) ♂ — copulatory organ: 37 — paralectotype of *D. thorelli*; 38-40. — holotype of *Dendryphantes fusconotatus* (Grube, 1861); 41-43 Mongolian specimen.

Figs. 48-49. *Dendryphantes fusconotatus*—♀ from Liman of Amur, epigynum and its internal structures.

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Figs. 60–63. *Dendryphantes fusconotatus*: 60 ♀ from Amur, Grube collection — internal structures of epigynum; 61–63 dorsal abdominal pattern of ♀, ♂ and a juvenile specimen from Mongolia.


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Figs. 69–70. Epigynum of two species of *Euophrys*: 69 — *Euophrys frontalis* (Walckenaer, 1802); 70 — *Euophrys thorelli* Kulczyński in Chyzer et Kulczyński, 1891.

Figs. 71–74. *Euophrys frontalis* (Walckenaer, 1802), ♂ — copulatory organ and leg I.
Figs. 75–77. *Euophrys nigrita* (Thorell, 1875), ♂ — copulatory organ.

Figs. 84–86. *Evarcha albaria* (L. Koch, 1878). Epigynum: dorsal and ventral views, as well as diagram of the sagittal section of epigynum.

Figs. 87–88. *Evarcha albopilosa* (Tystschenko, 1965). Holotype. Epigynum in ventral and dorsal views (the spermathecae are surrounded by white, unmacerated tissues in the latter).

Fig. 89. *Heliophanus auratus* C. L. Koch, 1848. ♀ from Semireche, epigynum.

Figs. 90–94. *Heliophanus auratus* ♂ from Semireche, palpus.
Figs. 95-97. *Heliophanus auratus*. ♂ from Murgab, palpus.

Figs. 98-100. *Heliophanus baicalensis* KULCZYŃSKI, 1895. ♀ — epigynum, ventral, dorsal views and internal structures.

Figs. 101-102. *Heliophanus camtschadalicus* KULCZYŃSKI, 1885. Epigynum and its internal structures, spermathecae are presumably somewhat displaced during mounting of prepatarion.
Fig. 103. *Heliophanus dampfi* Schenkel, 1923. Internal structures of epigynum.

Figs. 104-106. *Heliophanus kochi* Simon, 1868. ♀ — epigynum in ventral and dorsal views, internal structures.

Figs. 110-114. *Heliophanus lineiventris* ♂ — from Southern European USSR, copulatory organ.


Figs. 117-118. *Heliophanus tribulosus* Simon, 1868?. ♀ — epigynum and a diagrammatic sketch of its damaged, internal structures.
Figs. 119–122. *Heliophanus ussuricus* Kulczyński, 1895. ♀ — epigynum, ventral, dorsal and posterior views, internal structures

Fig. 130. *Icius abnormis* (Bösenberg et Strand, 1906). ♀ — epigynum.

Figs. 131–134. *Icius castriesianus* (Grube, 1861). ♂ — general appearance and copulatory organ.

Figs. 135–137. *Icius castriesianus*. ♂ — copulatory organ with bulbus turned some 45°.
Figs. 138–142. *Icius castricius* — specimens from Rumania, presumably not conspecific with those from Primore. 138–141, ♂ — copulatory organ, 142, ♀ — epigynum.

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Figs. 298–300. *Synageles venator* (Lucas, 1836). ♂ from Lower Amur Valley (Grube’s collection) general appearance, 1st leg and inflated copulatory organ.
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Figs. 301–304. *Synageles venator*. ♂ — the same specimen as above, further details of the copulatory organ.

Figs. 305–306. *Synageles venator*. ♂ from Poland — in a result of boiling in the KOH solution the previously smooth bulbus became inflated in a similar way as in the previous specimen.


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Figs. 313–315. Synagelides agoriformis. Abdominal pattern of a ♂, juvenile ♂ and a ♀ specimens.

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REFERENCES


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STRESZCZENIE

[Tytuł: Badania systematyczne nad Salticidae Wschodniej Palearktyki III. Uwagi o Salticidae ZSSR]

Brak informacji o występowaniu Salticidae we wschodniej części ZSSR utrudniał zrozumienie ogólnego charakteru rozmieszczenia geograficznego tej rodziny pająków w Regionie Palearktycznym. Praca niniejsza częściowo wypełnia tę lukę w oparciu o bogate zbiory Instytutu Zoologii AN ZSSR w Leningradzie oraz na podstawie niektórych innych kolekcji. Autor podaje wykaz 73 gatunków Salticidae, w większości z Primoria, doliny Amur i Syberii, oraz z niektórych innych okolic ZSSR. Wykaz uzupełniony jest rysunkami morfologicznymi, stanowiącymi dokumentację oznaczeń gatunkowych oraz studium cech systematycznych, oraz uwagami morfologicznymi i danymi z etykiet okazów.

Spośród podanych gatunków — 6 jest opisanych jako nowe dla nauki oraz utworzony został nowy rodzaj. Dla 4 dalszych gatunków opisane zostały 6 nozne samice, zsynonimizowane zostały 2 nazwy gatunkowe. Z pozostałych gatunków 4 okazały się nowymi dla ZSSR, 1 dla Mongolii i 1 dla Japonii, 26 dalszych gatunków to gatunki nowe dla różnych okolic ZSSR, przede wszystkim dla Primoria, doliny Amur i Syberii Wschodniej. Stwierdzenie tych faktów rozszerza znacznie zasięgi wspomnianych gatunków, często o kilka tysięcy kilometrów.
Заглавие: Изучение систематики Salticidae Восточной Палеарктики, III. Замечания о Salticidae CCCP]

Отсутствие данных о нахождении Salticidae в восточной части СССР затрудняет понимание общего характера географического распространения этого семейства наук в Палеарктике. Данная работа, основанная на изучении богатых сборов Зоологического Института АН СССР в Ленинграде, а также некоторых других коллекций, частично восполняет этот пробел. Автор приводит список 73 видов Salticidae, главным образом из Приморья, долины Амура и Сибири, а также некоторых других районов СССР. Список дополнен многочисленными рисунками, а также замечаниями о систематических признаках и данными о местах сбора материала.

Из приведенных видов 6 описаны как новые для науки, при этом выделен новый род. Для 4 видов описаны неизвестные ранее самки. Два вида сведены в синонимы. Из остальных видов 4 оказались новыми для СССР, 1 — для Монголии и 1 — для Японии, а 26 видов указываются впервые для различных районов СССР, главным образом для Приморья, долины Амура и Восточной Сибири. Эти новые данные значительно расширяют известные нам ареалы видов часто на несколько тысяч километров.

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