

## Review of the spider genus *Xysticus* C.L. Koch, 1835 (Arachnida Aranei Thomisidae) in the East Kazakhstan Area

### Обзор пауков рода *Xysticus* C.L. Koch, 1835 (Arachnida Aranei Thomisidae) Восточно-Казахстанской области

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**КЛЮЧЕВЫЕ СЛОВА:** *Xysticus*, фаунистика, Восточно-Казахстанская область.

**ABSTRACT:** Based on material taken in the East Kazakhstan Area, 15 species of the spider genus *Xysticus* are reported from that region. One species, *X. mongolicus* Schenkel, 1936, is redescribed. A map for the *X. ninnii fusciventris* Crome, 1965 distribution is also provided. The ♀ of *X. urgumchak* Marusik & Logunov, 1990 actually represents that of *X. mongolicus* Schenkel, 1936.

**РЕЗЮМЕ:** На основе материалов, собранных в Восточно-Казахстанской области, в этом регионе отмечено 15 видов пауков рода *Xysticus*. Переописан один вид, *X. mongolicus* Schenkel, 1936. Приведена карта распространения *X. ninnii fusciventris* Crome, 1965. Выяснено, что самка *X. urgumchak* Marusik & Logunov, 1990 на самом деле принадлежит виду *X. mongolicus* Schenkel, 1936.

#### Introduction

This paper is based mainly on materials collected by one of us (L.S.) in 1964-1985 in eastern Kazakhstan. A few additional specimens deriving from the Dzhambul and Akmola areas, southern and northern Kazakhstan resp., have been incorporated in the study as well. This paper deals with over 100 adult *Xysticus* attributed to 15 species listed below.

Discovery of some rare species in Kazakhstan, e.g. *X. mongolicus* Schenkel, 1936, *X. baltistanus* (Caporiacco, 1935), etc., confirms the fact that our knowledge both of the genus and the regional spider fauna is highly insufficient. East Kazakhstan, a vast region of special attention here, is known to support several mountainous systems (from northeast to southwest, the Altais, the Saur, the Tarbagatai, the Dzhungarsky Alatau) displaying a great variety of habitats, latitudinal zones and vertical belts physiographically ranging from true deserts to permanent glaciers. All this determines a profound zoogeographical interest of the region bridging Siberia and Central Asia and harbouring a mixture of floristic and faunistic elements of various origins [e.g. Kryzhanovsky, 1965].

The East Kazakhstan Area (EKA) as an administrative unit of Kazakhstan occupies much of the region concerned, lying between and covering a considerable part of the Altais and Tarbagatai Mts.

Catalogues of the Russian and Kazakhstan spider faunas by Kharitonov [1932, 1936] are currently out-of-date. Subsequent faunistic materials concerning the EKA fauna by Savyelyeva [1970, 1972, 1976, 1979, 1984] put on record as many as 21 species of *Xysticus*. Of these three, *X. oreophilus*, *X. subiacuticus*, and *X. tavricus*, have since never been rediscovered and, due to their insufficient original descriptions, must be considered *nomina dubia*. Further two species, *X. altaicus* Simon, 1895 and *X. crocerus* Fox, 1937, are absent from material at hand, and their records ought be reconfirmed upon surely determined specimens.

In the list of species given below, species distributions within the ex-USSR are given according to Kharitonov [1932, 1936], Utotchkin [1968, 1988, 1989, etc.], Crome [1965] and Mikhailov [in litt.]. Other distributional data are cited after Bonnet [1959] and Brignoli [1983]. In the species redescriptions, we follow Utotchkin's [1968] pattern. All measurements are in mm. Almost all materials mentioned in the text are deposited in the collection of the Perm State University (PSU). Some specimens of *X. mongolicus* Schenkel, 1963 and *X. ninnii fusciventris* Crome, 1965 are housed in the Zoological Museum of the Biological Institute, Novosibirsk (BI), and in the Zoological Museum of the Moscow State University, Moscow (ZMMU).

#### List of species

Family Thomisidae

Genus *Xysticus* C. L. Koch, 1835

*Xysticus audax* (Schrank, 1803)

MATERIAL: EKA: 1 ♀ (PSU), Zimovye, VI.1969; 1 ♂ (PSU), Kurchum Distr., bush, rocky slope near water,

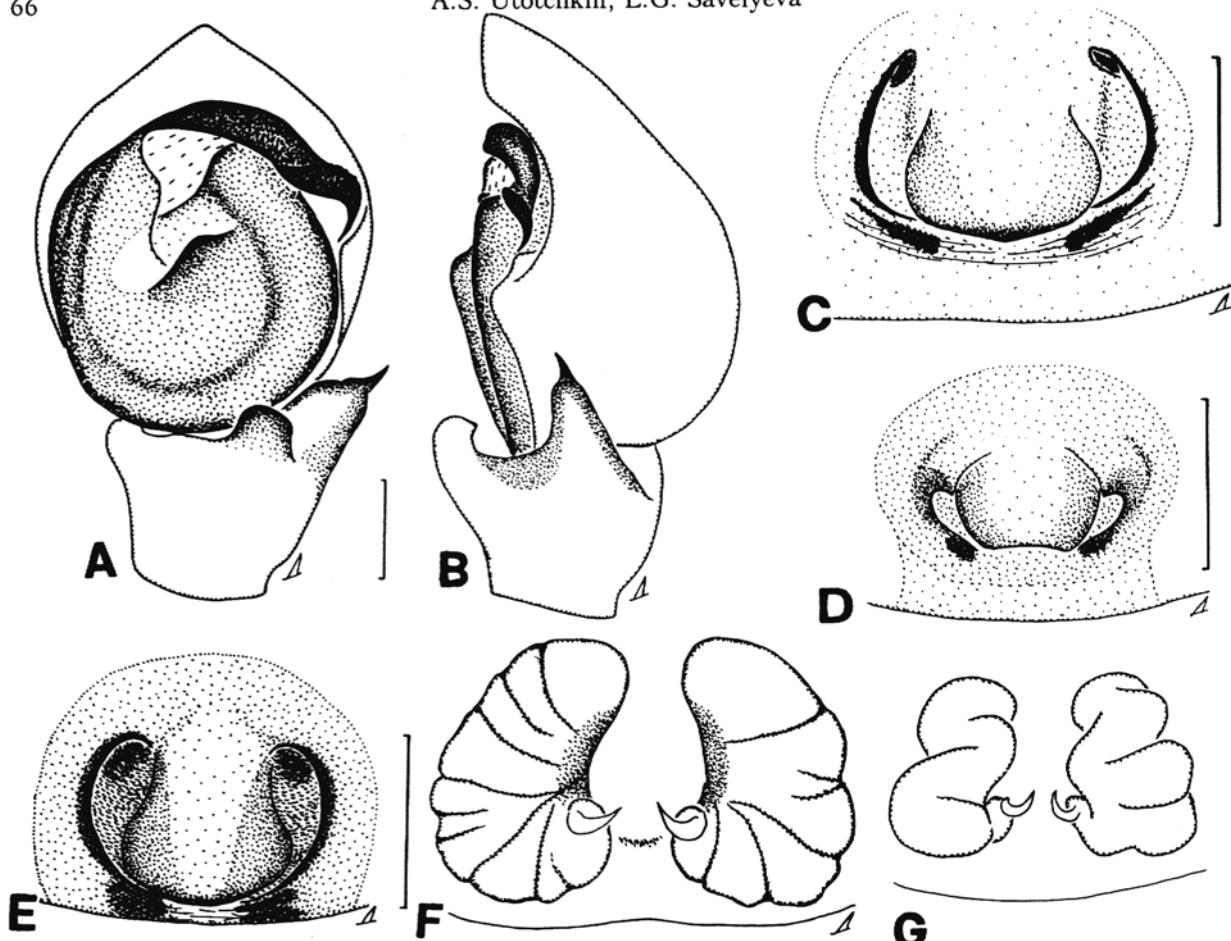


Fig. 1. Genitalia of *Xysticus mongolicus* Schenkel, 1936: A-B — ♂ palp, ventral and lateral resp.; C-E — epigyne; F-G — vulva. Scale: 0.25 mm.

Рис. 1. Гениталии *Xysticus mongolicus* Schenkel, 1936: А-В — пальпа ♂, соотв. вентрально и латерально; С-Е — эпигина; F-G — вульва. Масштаб: 0,25 мм.

19.VII.1972; 1 ♀ (PSU), Cheremshanka, 10-29.VI.1967, all leg. L.S.

DISTRIBUTION: Palearctic except for the tundra zone.

#### *Xysticus baltistanus* (Caporiacco, 1935)

MATERIAL: EKA: 1 ♂ (PSU), environs of Ust-Kamenogorsk, Solnetchnaya Bay, 8.VII.1985; 1 ♀ (PSU), same locality, 25.V.1969, all leg. L.S.

DISTRIBUTION: Kirghizstan, E-Kazakhstan, N-China, Siberia (Magadan Area, the upper Kolyma flow) [Marusik, 1988; Marusik & Logunov, 1990].

#### *Xysticus bifasciatus* (C. L. Koch, 1837)

MATERIAL: EKA: 1 ♂ (PSU), Cheremshanka, coniferous forest, 19.VI.1967, leg. L.S.

DISTRIBUTION: Palearctic except for the tundra zone.

#### *Xysticus cristatus* (Clerck, 1757)

MATERIAL: EKA: 1 ♀ (PSU), Cheremshanka, 10-29.VI.1967; 2 ♂♂, 2 ♀♀ (PSU), Dubogalinskoye Lake, 25-29.V.1966; 2 ♂♂ (PSU), Ust-Kamenogorsk, 31.V.1969; 1 ♂ (PSU), same locality, 28.VIII.1970; 1 ♂ (PSU), same locality, 5.VI.1983, all leg. L.S.

DISTRIBUTION: Holarctic except for the tundra zone.

#### *Xysticus dzhungaricus* Tystschenko, 1965

MATERIAL: EKA: 1 ♂ (PSU), Cheremshanka, 10.VI.1968; 2 ♀♀ (PSU), same locality, valley of Ulba River, 10-29.VI.1967; 1 ♀ (PSU), Soldatovo, Gorbikha, Manrak, 12-26.VI.1965, all leg. L.S.

DISTRIBUTION: From E-Kazakhstan in the west [Savelyeva, 1970, 1972, 1976, 1979; Marusik & Logunov, 1990: all as *X. kiritschenkoi*], throughout NW-China (Xinjiang) [Hu & Wu, 1989: as *X. piceana*] and S-Siberia up to the Russian Far East in the east [Logunov, 1992: as *X. kiritschenkoi*].

#### *Xysticus emertoni* Keyserling, 1880

= *X. excellens* Kulczyński, 1885

MATERIAL: EKA: 14 ♂♂, 1 ♀ (PSU), summer 1985; 2 ♂♂, 3 ♀♀ (PSU), W point of Rudnyi Altai Mts., Zimovye, VI.1969; 3 ♂♂, 2 ♀♀ (PSU), same, Ulanka, mixed forest, V.1969. — DZHAMBUL AREA: 1 ♂, 1 ♀ (PSU), Kurdaisky Distr., Lubzavod, 30.VII-7.VIII.1984, all leg. L.S.

DISTRIBUTION: Holarctic.

#### *Xysticus ephippiatus* Simon, 1880

= *X. transsibiricus* Utotschkin, 1968

MATERIAL: Dzhambul Area: 1 ♀ (PSU), Kurdaisky Distr., Lubzavod, 30.07-7.08.1984, leg. L.S.

DISTRIBUTION: Palearctic, in Middle Asia the species has hitherto been recorded by Marusik & Logunov [1990].

*Xysticus lineatus* Westring, 1851

MATERIAL: EKA: 2♀ (PSU), Feklistovka, 19.06.1969, leg. L.S.

DISTRIBUTION: W-Europe; Russia: European part, the Urals, C-Siberia; the Caucasus; the Far East. In the EKA, it has hitherto been recorded by Savelyeva [1970, 1979].

*Xysticus luctuosus* (Blackwall, 1836)

MATERIAL: EKA: 1♀ (PSU), Ust-Kamenogorsk, 16.V.1969; 1♀ (PSU), Zimovye, VI.1969, all leg. L.S.

DISTRIBUTION: Holarctic.

*Xysticus mongolicus* Schenkel, 1963

Fig. 1.

*X. urgumchak* Marusik & Logunov, 1990, ♀ only.

MATERIAL: EKA: 6♂♂, 8♀♀ (PSU), 1♂, 3♀♀ (ZMMU), 1♂, 3♀♀ (BI), Ust-Kamenogorsk, Rudnyi Altai Mts., 26.V-27.VII.1967, VII.1968, 19.VI.1970, 11.IX.1971, 11.IX.1977, IX.1980; 5♂♂, 2♀♀ (PSU), same locality, Babkina Melnitcha, 7-10.VII.1968, 11.XI.1971; 1♀ (PSU), same locality, Shmelev Log, 11.VII.1964; 2♂♂, 3♀♀ (PSU), Bolshe-Narymskii Distr., IX.1983, all leg. L.S.

DIAGNOSIS. This species is closely related to *X. striatipes* L. Koch, 1870, but differs in having the more strong and more strongly twisted ♂ embolus (Fig. 1, A-B) and the wider median bulge of the ♀ epigyne (Fig. 1, C-E).

DISTRIBUTION: Kazakhstan and China (Xinjiang) [Schenkel, 1963; Hu & Wu, 1989; Marusik & Logunov, 1990; ♀ *X. urgumchak*].

REDESCRIPTION. FEMALE. Carapace: length 3.8, width 3.6. Body length 8.9. Length of leg segments: Leg I — 4.0 + 2.0 + 3.0 + 2.6 + 1.3; leg III — 2.5 + 1.20 + 1.7 + 1.5 + 0.9. Spination of leg I: femur pr. 3, d. 1; tibia d. 1, rt. 2, v. 2.2.2.1 or 2.2.1.1.2.2. Carapace dark brown with a light median band with a dark brown patch behind eyes within band. Sides of carapace bordered by a yellow band. Sternum light yellow with numerous small spots. Abdomen dorsally light, with an interrupted band of paired yellow-brown patches. Venter light yellow, monochromous. Legs yellow darkly maculate. Epigyne and vulva as in Fig. 1, C-G.

MALE. Carapace: length 2.5, width 2.4. Body length 4.8. Length of leg segments: leg I — 3.0 + 1.2 + 2.4 + 2.3 + 0.9; leg III — 1.6 + 0.6 + 1.3 + 1.0 + 0.7. Spination of leg I: femur pr. 5, d. 4; tibia pr. 1, rt. 3, v. 2.2.2.2; metatarsus pr. and rt. 3, v. 1.2.2.2. Carapace dark brown, with a lighter median band clearly visible only on eye field. A brown patch behind eyes. Sides of carapace with yellow veins. Abdomen coloration as in ♀. Palp varies in both size and shape, its structure as in Fig. 1, A-B.

REMARKS: Beyond doubt, the ♀ (paratype) of the recently described species *X. urgumchak* Marusik & Logunov, 1990 should be actually assigned to *X. mongolicus* (♀ paratype of *X. urgumchak* examined).

*Xysticus ninnii fusciventris* Crome, 1965

Fig. 2, Map 1.

MATERIAL: EKA: 1♂ (PSU), Bukhtarma Reservoir, Solnechnaya Bay, 5.VII.1984, leg. L.S. — DZHAMBUL AREA: 1♀ (PSU), Dzhungarsky Alatau Mt. Range, Topolevka, steppe, 22.VI.1957. — TURGAI AREA: 2♂♂, 1♀ (ZMMU), 3♂♂, 5♀♀ (PSU), 1♂, 4♀♀ (BI), Arkalyk Distr., Gerisakkan and Shabbara Rivers, Kokshetau Mts., 26.V-30.VI.1957, all leg. V.P. Tystschenko.

Comparative material: ARMENIA: 1♂ (BI), Sevan Town, 2050 m alt., sweeping in meadow, 29.VII.1983, leg. D.V. Logunov. — TURKMENIA: 1♂ (BI), SW-Kopet-dagh Mts., Syunt-Khasardagh Reserve, 4.VI.1982, leg.

B.P. Zakharov. — KAZAKHSTAN: 1♂ (BI), Pavlodar Area, Ermakovskiy Distr., Aksu, valley of Irtysh River, 26.VI.1990, leg. O.V. Lyakhov.

DISTRIBUTION: The species has hitherto been recorded from the S-European part of Russia, the Caucasus, Middle Asia and Mongolia [Crome, 1965; Marusik & Logunov, 1990: *X. ninni*; Loksa, 1965: *X. ninnii*] (Map 1).

REMARKS: Crome [1965] has thoroughly studied both European and Asian materials of *X. ninni* Thorell, 1872 and described a new subspecies, *X. ninni fusciventris* Crome, 1965, with the type locality lying in Teberda, N-Caucasus. The specimens at hand surely belong to this subspecies (Fig. 2), thus enabling to refine the distribution (Map 1).

Judged from Crome's [1965] data, this subspecies can be supposed to actually represent a good species of full value.

*Xysticus robustus* (Hahn, 1831)

MATERIAL: EKA: 1♀ (PSU), environs of Ust-Kamenogorsk, Smelev Log, 480 m alt., 25.05.1969; 1♀ (PSU), same locality, Babkina Melnitsa, 5.VII.1965, all leg. L.S.

DISTRIBUTION: Europe, Kazakhstan.

*Xysticus striatipes* L. Koch, 1870

MATERIAL: EKA: 4♂♂, 2♀♀ (PSU), environs of Ust-Kamenogorsk, 26.V.1967, VI.1968, IX.1980, 25.IX.1985, leg. L.S.

DISTRIBUTION: Europe; Russia: S-European part, S-Siberia; the Caucasus; Kazakhstan; NW-China.

*Xysticus ulmi* (Hahn, 1852)

MATERIAL: EKA: 2♀♀ (PSU), Cheremshanka, 10-29.VI.1967, leg. L.S.

DISTRIBUTION: Palearctic.

*Xysticus viduus* Kulczyński, 1898 [sensu Utuchkin, 1968]

MATERIAL: EKA: 3♂♂, 1♀ (PSU), environs of Ust-Kamenogorsk, VI.1965, 5.VI.1983, 20.V.1984; 1♀ (PSU), same locality, Sogra, 20.V.1968, all leg. L.S.

DISTRIBUTION: Middle Europe; Russia: European part, the Urals, W- and C-Siberia; N- and E-Kazakhstan.

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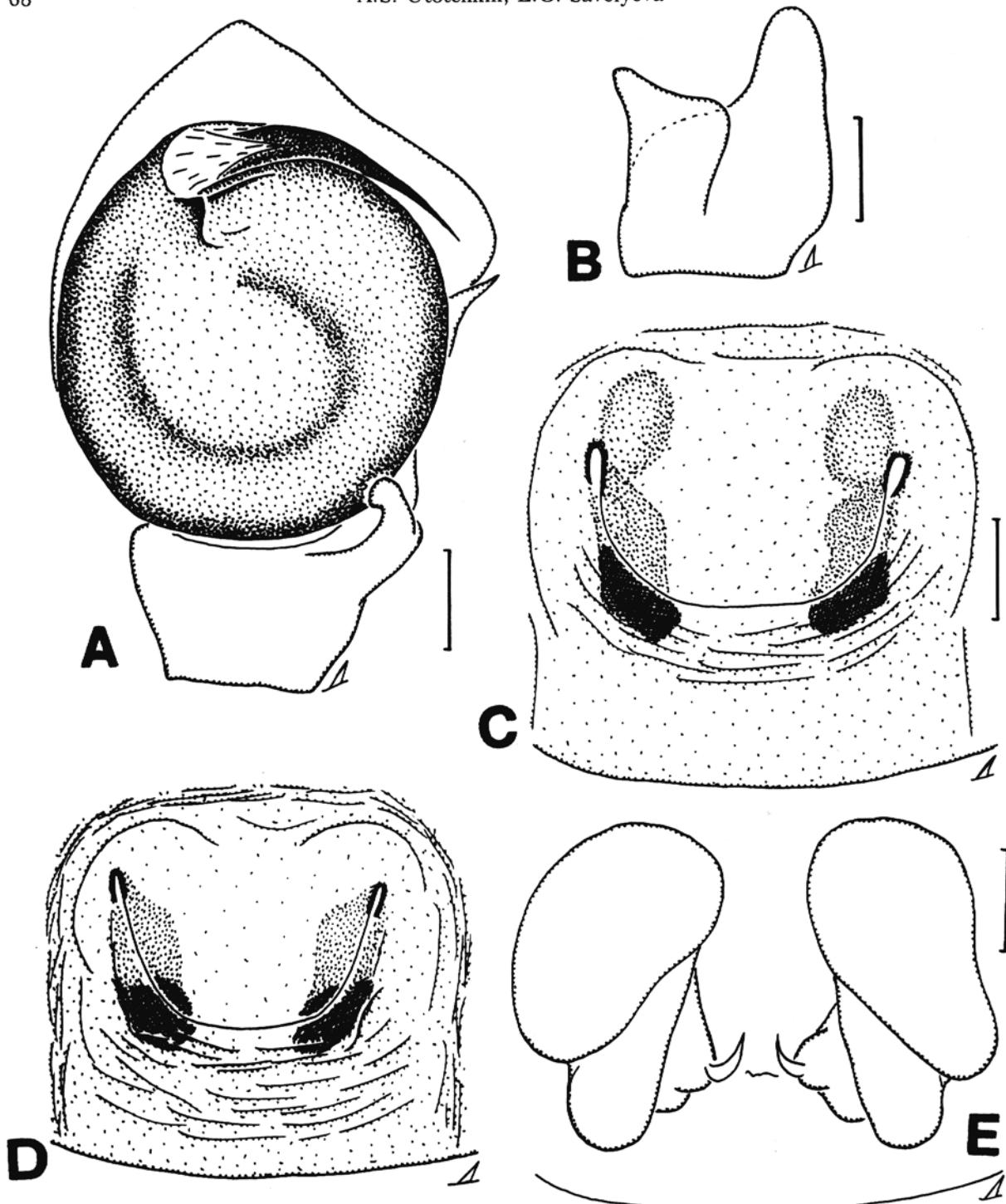


Fig. 2. Genitalia of *Xysticus ninnii fusciventris* Crome, 1965: A — ♂ palp, ventral ; B — tibial apophysis, lateral; C-D — epigyne; E — vulva. Scale: 0.1 mm.

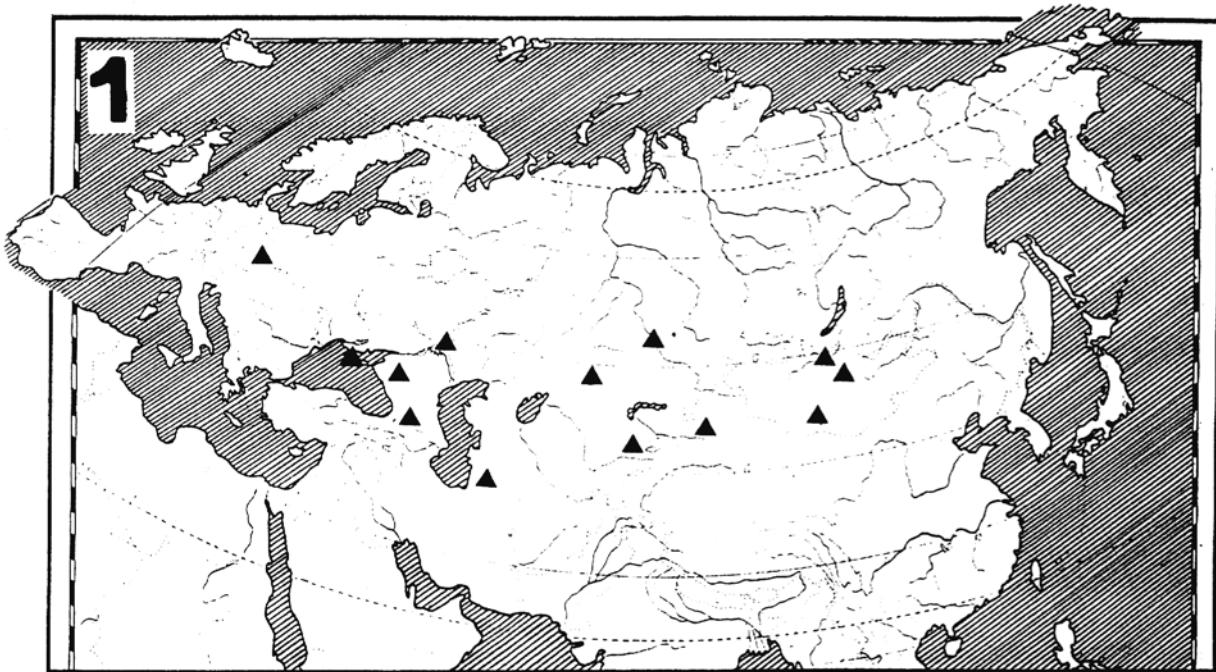
Рис. 2. Гениталии *X. ninnii fusciventris* Crome, 1965: А — пальпа ♂, вентрально; В — голеный отросток, латерально; С-Д — эпигина; Е — вульва. Масштаб: 0,1 мм.

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Map. 1. Encounters of *X. ninnii fusciventris* Crome, 1965.  
Карта 1. Места находок *X. ninnii fusciventris* Crome, 1965.

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