

Remarks on the Ural spider fauna, 6. New data on the taxonomy and faunistics of gnaphosid spiders of the South Urals (Arachnida Aranei Gnaphosidae)

Заметки по фауне пауков Урала, 6. Новые данные по таксономии и фаунистике пауков-гнафозид Южного Урала (Arachnida Aranei Gnaphosidae).

S.L. Esyunin, V.E. Efimik
С.Л. Есюнин, В.Е. Ефимик

Department of Zoology, Perm State University, Bukireva Street 15, Perm 614600 Russia.

Кафедра зоологии беспозвоночных животных, Пермский государственный университет, ул. Букирева 15, Пермь 614600 Россия.

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КЛЮЧЕВЫЕ СЛОВА: Gnaphosidae, фаунистика, новые виды, Урал.

ABSTRACT. Two new species of the genus *Gnaphosa* Latreille, 1804, and *Zelotes* Gestel, 1848, are described: *G. halophila* sp.n. from the Chelyabinsk Area, and *Z. rufi* sp.n. from Bashkiria. A new combination is proposed: *Urozelotes yutian* (Platnick et Song, 1986) ex *Zelotes*. New records of species of the genera *Zelotes* and *Gnaphosa* collected in the South Urals are given. Some earlier misidentifications concerning the Ural list have been corrected.

РЕЗЮМЕ. Описаны два новых вида из родов *Gnaphosa* Latreille, 1804, и *Zelotes* Gestel, 1848: *G. halophila* sp.n. из Челябинской области и *Z. rufi* sp.n. из Башкирии. Предложена новая комбинация: *Urozelotes yutian* (Platnick et Song, 1986) ex *Zelotes*. Приведены новые данные о пауках рода *Zelotes* и *Gnaphosa* Latreille, 1804, собранных на Южном Урале. Исправлен ряд ошибочных видовых определений, содержащихся в ранее опубликованных фаунистических списках по Уралу.

Introduction

The gnaphosid fauna of the Urals is relatively well-documented due to numerous faunistic publications. Altogether, 63 species of Gnaphosidae have hitherto been reported from this region. The main goal of the present paper is the description of some new or rare species based on Ural material.

Type material has been deposited in the collection of the Zoological Museum of the Moscow State University (ZMMU). Other materials quoted here belong to the collection of the Department of Zoology of the Perm State University (PSU).

In species descriptions, we follow the pattern by Platnick & Shadab [1983]. The following abbreviations are accepted: d — dorsally, p — prolaterally, r — retrolaterally, v — ventrally. All measurements are in mm.

Taxonomic part

First of all, the following earlier misidentifications of Ural spiders should be corrected, based on a restudy of pertinent material.

1. The record of *Gnaphosa aborigena* Tystshenko, 1965, by Esyunin & Pakhorukov [1992] should be referred to *G. saurica* Ovtsharenko, Platnick et Song, 1992.

2. The record of *Gnaphosa cumensis* Ponomarev, 1981, in the Troitskii Reserve by Esyunin & Efimik [1995] is to be applied again to *G. saurica* Ovtsharenko, Platnick et Song, 1992.

3. The record of *Gnaphosa lucifuga* (Walckenaer, 1802), by Esyunin & Pakhorukov [1992] should be referred to the very same *G. saurica* Ovtsharenko, Platnick et Song, 1992.

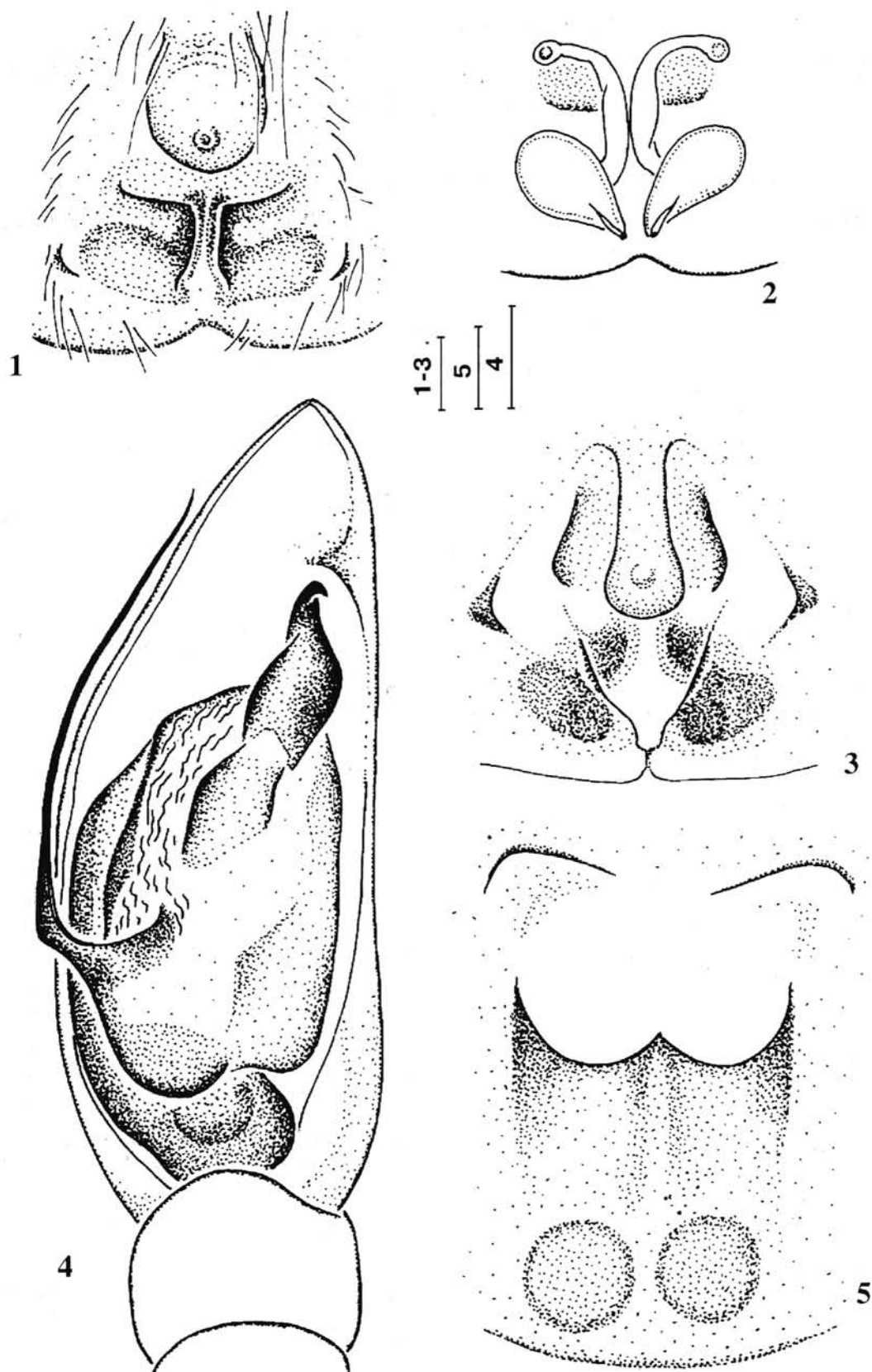
4. The record of *Zelotes clivicola* (L.Koch, 1870), in the environs of Orenburg City by Kuznetsov [1995] is actually applied to *Z. pseudoclivicola* Grimm, 1982.

Gnaphosa halophila Esyunin et Efimik sp.n.

Figs 1-2.

Holotype ♀ (ZMMU), Chelyabinsk Area, Troitskii Reserve, salinated land, pitfall trapping, 29.VI-7.VII.1994, leg. S. Esyunin.

Diagnosis: The new species belongs to the *leporina*-group sensu Ovtsharenko et al. [1992]. It is similar to the Palearctic *G. leporina* (L.Koch, 1866) [see Grimm, 1985: figs 56-57] and to *G. sp. 3* [see Marusik & Logunov, 1995: figs 67-68] from Tuva, but can be separated by the short epigynal hood and narrow median epigynal ducts.



Figs 1-5. Genitalia of *Gnaphosa balophila* sp. n. (1-2), *G. licenti* Schenkel, 1953 (3-4), and *Zelotes declinans* (Kulczyński, 1897) (5): 1, 3 and 5 — epigyne; 2 — vulva; 4 — male palp, ventral view. — Scale 0.1 mm.

Рис. 1-5. Гениталии *Gnaphosa balophila* sp. n. (1-2), *G. licenti* Schenkel, 1953 (3-4) и *Zelotes declinans* (Kulczyński, 1897) (5): 1, 2 и 5 — эпигина; 2 — вульва; 4 — пальпа самца, вид снизу. — Масштаб 0,1 мм.

Description: Male. Unknown.

Female. Total length 5.0. Carapace 2.2 long, 1.7 wide, yellow-brown. Femur II 1.1 long. Eye size and interdistances: AME 0.08, ALE 0.10, PME 0.05, PLE 0.10, AME-AME 0.05, AME-ALE 0.02, PME-PME 0.04, PME-PLE 0.15, AME-PME 0.13, ALE-PLE 0.13, MOQ length 0.23, front width 0.15, back width 0.14. Leg spination (III and IV legs absent): I and II. Femur: d 1-1-0, p 0-0-1; Metatarsus: v 0-2-0. Abdomen grey; lung covers yellow. Legs coloration: femur yellow, tibia grey-yellow, metatarsus and tarsus yellow-brown. Epigyne and vulva as at Figs 1-2.

Gnaphosa licenti Schenkel, 1953

Figs 3-4.

Material: 2♂♂, 1♀ (PSU), Chelyabinsk Area, Troitsk Distr., Uli River, stony steppe, under stones, 21.V.1993, leg. S. Esyunin; 5♂♂, 3♀♀ (PSU), same locality and habitat, pitfall trapping, 23.VI-8.VII.1994, leg. S. Esyunin.

Diagnosis: See Ovtsharenko et al. [1992].

Description: Male. Total length 5.2(4.5-5.8). Carapace 2.5(2.1-2.8) long, 1.9(1.7-2.1) wide, dark-brown. Femur II 1.4(1.3-1.6) long. Eye size and interdistances: AME 0.08, ALE 0.09, PME 0.10, PLE 0.11, AME-AME 0.08, AME-ALE 0.05, PME-PME 0.03, PME-PLE 0.15, AME-PME 0.13, ALE-PLE 0.18, MOQ length 0.25, front width 0.23, back width 0.23. Leg spination:

I. Femur: d 1-1-0, p 0-0-1; Tibia: v 0-1p-2; Metatarsus: v 2-2-0.

II. Femur: d 1-1-0, p 0-1(0)-1; Tibia: v 0-1p-1p; Mt 2-2-0.

III. Femur: d 1-1-1, p 0-1-1, r 0-1-1; Tibia: d 1-0-0, p 1-1-1(0), r 1-1-1, v 2-2-2; Metatarsus: p 1-2-2, r 2(1)-2-2, v 2-2-2.

IV. Femur: d 1-1-0, p 0-0-1, r 0-0-1; Tibia: d 1-0-0, p 2(1)-2(1)-0, r 2-1-1(2), v 2-2-2; Metatarsus: p 2(1)-2+2-2(1), r 1-2+1-2, v 2-2(1p+1p)-2.

Abdomen black with grey decumbent hairs and black setae from above; scutum feebly expressed; lung covers yellow. Femora and tibiae black-brown; pelvis from below, metatarsi, tarsi and pedipalps brown. Palp as in Fig. 4.

Female. Total length 6.6(5.2-7.4). Carapace 2.9(2.6-3.1) long, 2.1(1.9-2.3) wide. Femur II 1.6(1.4-1.7) long. Eye size and interdistances: AME 0.08, ALE 0.10, PME 0.10, PLE 0.10, AME-AME 0.09, AME-ALE 0.03, PME-PME 0.05, PME-PLE 0.15, AME-PME 0.13, ALE-PLE 0.18, MOQ length 0.30, front width 0.26, back width 0.20. Leg spination as in ♂, except for Tibia I and II: v 0-0-1p. Body and leg coloration as in ♂. Epigyne and vulva as in Fig. 3.

Remarks: New to the fauna of the Urals, this species has been recorded in several places of Russia: Khakassia, Tuva and Buryatia [Marusik & Logunov, 1995] as well as in Kazakhstan, Kirghizia, Mongolia, China and Korea [Ovtsharenko et al., 1992].

Gnaphosa saurica Ovtsharenko, Platnick et Song, 1992

Figs 6-7, 10-12.

Material: 1♂, 5♀♀ (PSU), Chelyabinsk Area, Troitskii Reserve, salinated land, pitfall trapping, 12.VII.1989, leg. S. Esyunin; 2♂♂, 6♀♀ (ZMMU), same locality and habitat, pitfall trapping,

9-26.VI.1992, leg. P. Durmanov; 1♂ (PSU), same locality and habitat, 1.VII.1993, leg. S. Esyunin; 1♀ (PSU), same locality and habitat, pitfall trapping, 12.VII.1989, leg. et det. S. Esyunin (as *G. lucifuga*); 1♀ (PSU), same locality and habitat, pitfall trapping, 16.VI.1992, leg. P. Durmanov, det. S. Esyunin (as *G. aborigena*); 2♂♂, 3♀♀ (PSU), same locality and habitat, pitfall trapping, 9-16.VI.1992, leg. et det. S. Esyunin (as *G. cumensis*).

Other material: 3♀♀ (PSU) Ukraine, Dnepropetrovsk Area, Botevo, 7.VII.1937, leg. V. Nikolaev.

Comparative material: *Gnaphosa dolosa* Herman, 1879: 1♀ (PSU), Caucasus, Sukhumi City, 24.VI.1938, leg. T.S. Mkhedze.

Diagnosis: This species belongs to the *lucifuga* group sensu Ovtsharenko et al. [1992]. It is similar to *G. dolosa* Herman, 1879 (cf. Figs 8-9 and Ovtsharenko et al. [1992: figs 19-22]) but can be distinguished by the row of tubercles on the lateral portion of the embolus and the more narrow apical portion of the embolus in ♂♂ as well as by the narrowed epigynal hood in ♀♀. Female *G. saurica* seems close to *G. tuvinica* Marusik et Logunov in Ovtsharenko, Platnick et Song, 1992 [sensu Marusik & Logunov, 1995: fig. 60, but not sensu Ovtsharenko et al., 1992: fig. 94] by the shape of the vulva, but it can be distinguished by the shape of the lateral epigynal margin and epigynal hood.

Description: ♂ & ♀ described by Ovtsharenko et al. [1992].

Remarks: New to the Russian and Ukrainian faunas, this is only a second record of this species originally described from Kazakhstan [Ovtsharenko et al., 1992]. The records of *G. aborigena* Tytschenko, 1965, and *G. lucifuga* (Wackenaer, 1802) [Esyunin & Pakhorukov, 1992] as well as of *G. cumensis* Ponomarev, 1981 [Esyunin & Efimik, 1995] in the Troitskii Reserve are referred in fact to *G. saurica* Ovtsharenko, Platnick et Song, 1992 (see above).

Zelotes rufi Efimik sp.n.

Figs 17, 18.

Holotype ♀ (ZMMU), Bashkiria, Meleuz Distr., Syrtlanovo, meadow, 31.VIII.1990, leg. V. Efimik.

Name: The specific epithet consists of some first letters abbreviating the Russian Foundation of Basic Investigations.

Diagnosis: *Z. rufi* sp.n. seems closest to *Z. erebeus* (Thorell, 1870) [see Grimm, 1985: figs 290-291], but it can be recognized by the shape of the lateral epigynal margins and conformation of the median epigynal ducts.

Description: Male. Unknown.

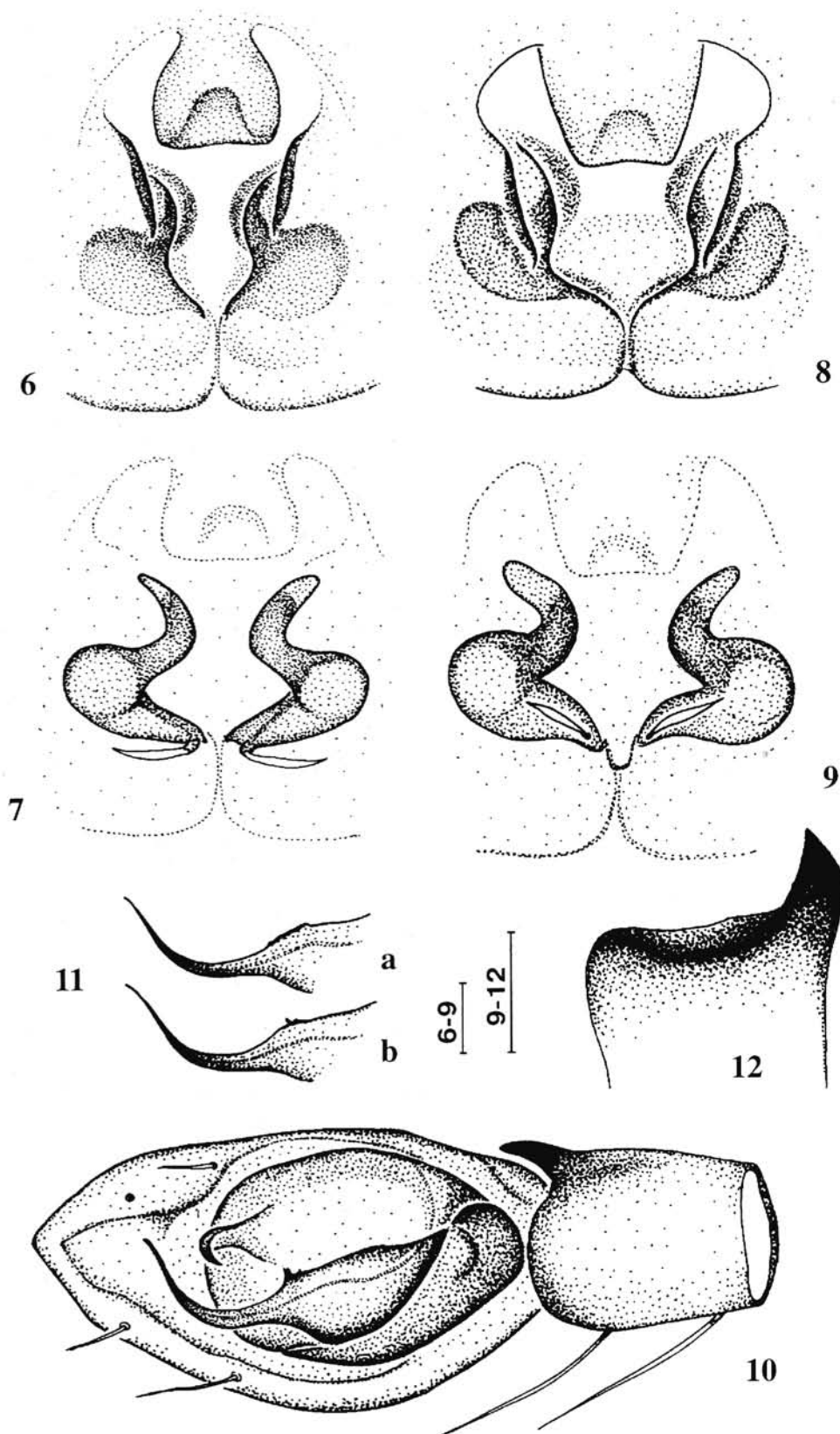
Female. Total length 2.9. Carapace 1.1 long, 0.9 wide, brown. Femur II 0.7 long. Eye size and interdistances: AME 0.02, ALE 0.05, PME 0.03, PLE 0.05, AME-AME 0.05, AME-ALE 0.01, PME-PME 0.03, PME-PLE 0.05, AME-PME 0.06, ALE-PLE 0.05, MOQ length 0.13, front width 0.08, back width 0.10. Leg spination (II, III and IV right legs absent; II left leg underdeveloped):

I. Femur: d 1-0-0; Metatarsus: v 2-0-0.

II. Femur: d 1-1-0. Tibia: ?. Metatarsus: ?.

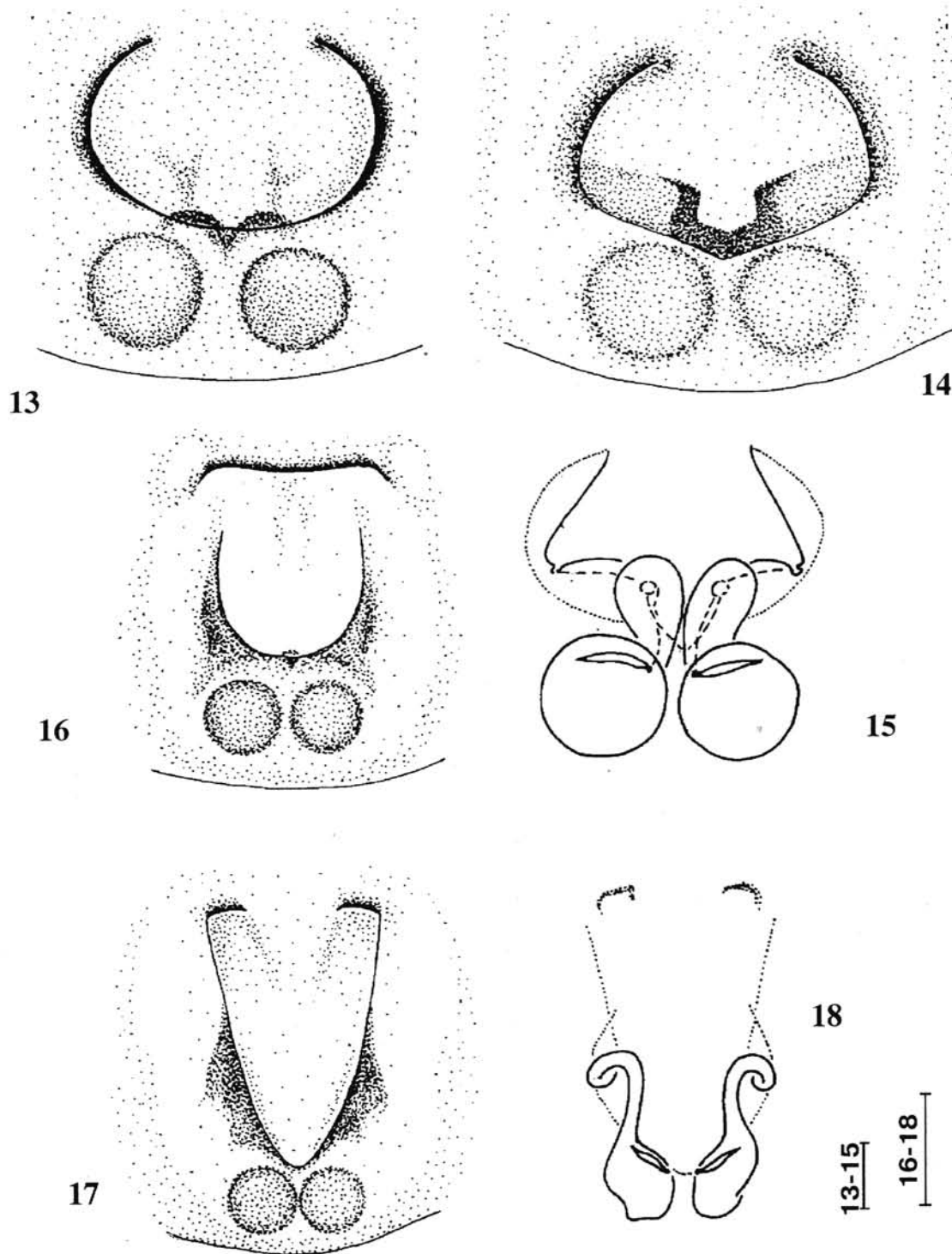
III. Femur: d 1-2-1; Tibia: p 1-1-0, v 2-2-2; Metatarsus: p 0-2-2, r 0-2-2.

IV. Femur: d 1-1-1r; Tibia: p 1-2-0, r 1-2-0, v 2-2-2; Metatarsus: d 0-2-0, p 1-1-1, r 1-1-1, v 2-2-2. Abdomen grey; lung covers white. Legs yellow-grey with yellow tarsi. Pedipalp yellow. Epigyne and vulva as in Figs 17 & 18.



Figs 6-12. Genitalia of *Gnaphosa saurica* Ovtsharenko, Platnick et Song, 1992 (6-7, 10-12), and *G. dolosa* Herman, 1879 (8-9): 6, 8 — epigyne; 7, 9 — vulva; 10 — ♂ palp, ventral view; 11a,b — variants of embolic armament; 12 — tibia of ♂ palp, lateral view. — Scale 0.1 mm.

Рис. 6-12. Гениталии *Gnaphosa saurica* Ovtsharenko, Platnick et Song, 1992 (6-7, 10-12) и *G. dolosa* Herman, 1879 (8-9): 6, 8 — эпигина; 7, 9 — вульва; 10 — пальпа ♂, вид снизу; 11a,b — варианты вооружения эмболюса; 12 — голень пальпы ♂, вид сбоку. — Масштаб 0,1 мм.



Figs 13-18. Genitalia of *Zelotes pseudoclivicola* Grimm, 1982 (13-15), *Z. rufi* sp.n. (17-18) and *Urozelotes yutian* (Platnick et Song, 1986) (16): 13-14, 16-17 — epigyne; 15, 18 — vulva. — Scale 0.1 mm.

Рис. 13-18. Гениталии *Zelotes pseudoclivicola* Grimm, 1982 (13-15), *Z. rufi* sp.n. (17-18) и *Urozelotes yutian* (Platnick et Song, 1986) (16): 13-14, 16-17 — эпигина; 15, 18 — вульва. — Масштаб 0,1 мм.

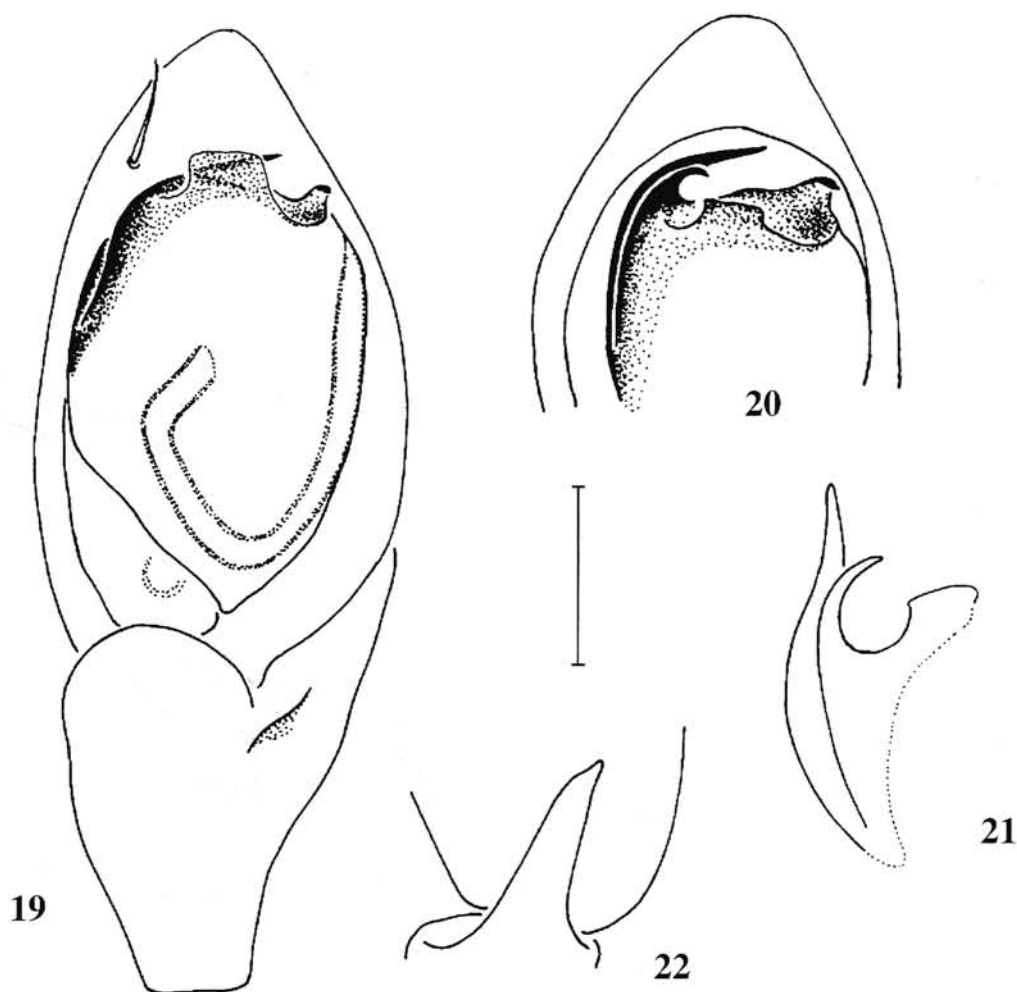
Zelotes declinans (Kulczyński, 1897)

Fig. 5.

Material: 1♀ (PSU), Chelyabinsk Area, Troitsk Distr., Uli River, stony steppe, pitfall trapping, 8.VII.1994, leg. S. Esyunin.

Diagnosis: Female *Z. declinans* seems closest to *Z. oblongus* (C. L. Koch, 1839) [see Grimm, 1985: figs 254-255], but it can be easily distinguished by the shape of the median epigynal duct.

Description: ♂ described by Grimm [1985].



Figs 19-22. ♂ palp of *Urozelotes yutian* (Platnick et Song, 1986), comb.n.: 19 — ventral view; 20 — apical part, retro-apical view; 21 — terminal apophysis and embolus, retro-apical view; 22 — tibia, lateral view. — Scale 0.1 mm.

Рис. 19-22. Пальпа ♂ *Urozelotes yutian* (Platnick et Song, 1986), comb.n.: 19 — вид снизу; 20 — верхушка, ретроапикальный вид; 21 — терминальная апофиза и эмболюс, ретроапикальный вид; — голень, вид сбоку. — Масштаб 0,1 мм.

Female. Total length 4.1. Carapace 1.8 long, 1.5 wide, reddish-brown. Femur II 1.0 long. Eye size and interdistances: AME 0.04, ALE 0.09, PME 0.05, PLE 0.05, AME-AME 0.05, AME-ALE 0.03, PME-PME 0.05, PME-PLE 0.05, AME-PME 0.08, ALE-PLE 0.08, MOQ length 0.15, front width 0.13, back width 0.15. Leg spination:

I and II. Femur: d 1-0-0, p 0-0-1.

III. Femur: d 1-2-0; Tibia: p 0-1-1, r 0-1-1, v 2-2-2; Metatarsus: p 0-1-2, r 0-1-2, v 1-0-0.

IV. Femur: d 1-1-0; Tibia: r 1-0-1, v 2-2-2; Metatarsus: p 0-1-2, r 0-1-2, v 2-1-0.

Abdomen black on dorsal side and grey on ventral side; lung covers yellow. Legs yellow-grey with yellow pelvis. Pedipalp yellow. Epigyne and vulva as in Fig. 5.

Remarks: New to the fauna of the Urals. This species has hitherto been known from S- and M-Europe, Ukraine and Kazakhstan [Ovtsharenko, 1982; Grimm, 1985; Eskov & Marusik, 1995] as well as from several places of Russia: the Rostov/Don, Vologda and Samara areas, Kalmykia [Ovtsharenko, 1982; Krasnobaev & Matveyev, 1993].

Zelotes pseudoclivicola Grimm, 1982

Figs 13-15.

Material: 1♀ (PSU), Orenburg Area, Orenburg Distr., "Gora Sulak" Protected Landscape, pine plantation, 10.VIII.1985, leg. et det. S.F. Kuznetsov (as *Z. clivicolus*); 1♀ (PSU), Orenburg Area, Sol-Iletsk Distr., Ilek, 20.VII.?, leg. S.F. Kuznetsov; 1♀ (PSU), Chelyabinsk Area, Troitskii Reserve, reedy shore of lake, pitfall trapping, 19.VI.1992, leg. P. Durmanov.

Diagnosis: The ♀ of this member of the *subterraneus*-group seems closest to the Chinese species *Z. pseudoapricorum* Schenkel, 1963 [see Platnick & Song, 1986: figs 1-2], as well as to the Siberio-Nearctic *Z. sula* Lowrie et Gertsch, 1955 [see Platnick & Shadab, 1983: figs 16-17]. Yet *Z. pseudoclivicola* can be recognized from *Z. pseudoapricorum* by the thicker median and lateral epigynal ducts, and from *Z. sula* by the thicker lateral epigynal duct only.

Description: ♂ described by Grimm [1985].

Female. Total length 5.5(5.3-5.6). Carapace 2.4(2.3-2.5) long, 1.9(1.8-1.9) wide, brown. Femur II 1.5 long. Eye size and interdistances: AME 0.03, ALE 0.09, PME

0.06, PLE 0.10, AME-AME 0.08, AME-ALE 0.01, PME-PME 0.08, PME-PLE 0.08, AME-PME 0.09, ALE-PLE 0.08, MOQ length 0.23, front width 0.15, back width 0.15. Leg spination:

I and II. Femur: d 1-1-0, p 0-0-1; Metatarsus: v 2-0-0.

III. Femur: d 1-1-0, p 0-1-1, r 0-1-1; Tibia: p 2(1)-1-0, r 1-1-1, v 2-2-2; Metatarsus: p 1-2-2, r 1(2)-2-2, v 2-2-0.

IV. Femur: d 1-1-0, p 0-1(0)-1, r 0-1(0)-1(0); Tibia: p 2(1)-2(1)-0(1), r 2-2-0, v 2-2-2; Metatarsus: p 1-2-2, r 1-2-2, v 2-2-2.

Abdomen black; lung covers yellow. Legs brown. Femur of pedipalp yellow. Epigyne and vulva as in Figs 13-15.

Remarks: New to the Russian list, this species has been known from SW-, W- and M-Europe [Grimm, 1985], while the above localities are its easternmost records. The record of *Z. clivicola* (L. Koch, 1870), in the environs of Orenburg by Kuznetsov [1995] is actually applied to *Z. pseudoclivicola* Grimm, 1982 (see above).

Urozelotes yutian (Platnick et Song, 1986),
comb.n.

Figs 16, 19-22.

Zelotes yutian Platnick et Song, 1986: 12, figs 41-44 (♂♀).

Z. yutian: Marusik & Logunov, 1995: 197, figs 88-90 (♂♀).

Material: 3 ♂♂, 1 ♀ (PSU), Chelyabinsk Area, Troitskii Reserve, reedy shore of lake, pitfall trapping, 5-24.VI.1992, leg. P. Durmanov; 3 ♂♂ (PSU), same locality, salinated land, pitfall trapping, 22.V.1993, leg. S. Esyunin.

Diagnosis: This species is similar to *Urozelotes rusticus* (L. Koch, 1872) [see Platnick & Murphy, 1984: figs 55-58] but can be distinguished by the shape of the tibial apophysis of the ♂ palp and the square epigynal plate in ♀♀.

DESCRIPTION: ♂ & ♀ described by Platnick & Song [1986: as *Zelotes*].

Remarks: This species was attributed by Platnick [Platnick & Song, 1986] to the "*puritanus* subgroup" of the genus *Zelotes* but, unfortunately, the structure of neither bulbal nor terminal apophysis was investigated in due detail. It should be noted that the intercalary sclerite on the ♂ palp is absent, and the terminal apophysis structure of this species (fig. 20-21) is similar to the one of species of the genus *Urozelotes* Mello-Leitão, 1938 [see Platnick & Murphy, 1984]. Hence the above new combination.

New to the fauna of the Urals, this species has hitherto been recorded in several places of Russia: Khakassia, Tuva, Buryatia and Central Yakutia [Marusik & Logunov,

1995] as well as in E-Kazakhstan [Marusik & Logunov, 1995] and China [Platnick & Song, 1986].

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