

*Pelecopsis steppensis* sp.n. (Aranei: Linyphiidae)  
from southern Ukraine

*Pelecopsis steppensis* sp.n. (Aranei: Linyphiidae) из южной Украины

V.A. Gnelitsa

В.А. Гнелица

Sumy State Teacher's Training University, Romenskaya Str. 87, Sumy 40002 Ukraine.

Сумской государственной педуниверситет им. А.С.Макаренко, ул. Роменская 87, Сумы 40002 Украина.

KEY WORDS: *Pelecopsis steppensis* sp.n., *Pelecopsis laptevi*, Erigoninae, new species, description.

КЛЮЧЕВЫЕ СЛОВА: *Pelecopsis steppensis* sp.n., *Pelecopsis laptevi*, Erigoninae, новый вид, описание.

ABSTRACT. Illustrated descriptions of *Pelecopsis steppensis* sp.n., and *Pelecopsis laptevi* Tanasevitch & Fet, 1986 (Linyphiidae), from southern Ukraine are presented.

РЕЗЮМЕ. Приведено описание, детальные рисунки вида *Pelecopsis laptevi* Tanasevitch & Fet, 1986, а также иллюстрированное описание нового вида пауков *Pelecopsis steppensis* sp.n..

### Introduction

The erigonine species *Pelecopsis laptevi* Tanasevitch & Fet, 1986 was described from south Turkmenistan, and is known so far only from Turkmenistan. It differs remarkably from all other *Pelecopsis* species. When the authors described *P. laptevi*, only a few diagnostic characters were mentioned, and very schematic figures of the male palp were shown.

A few years ago, some *Pelecopsis* specimens remarkably similar to *P. laptevi* were found in Crimea. Detailed studies of these Crimean specimens, and comparison with material from Kherson Area (southern Ukraine), as well as with specimens of *P. laptevi* (kindly submitted by Dr. A.V. Tanasevitch), revealed that populations from the Crimean peninsula and Kherson Area represent an undescribed species closely related to the Turkmenian species.

Here we describe the new species as *Pelecopsis steppensis* sp.n. and provide comparative drawings and a brief description of *P. laptevi* as well.

The following abbreviations mostly adopted from Hormiga [2000] have been used: C — cymbium, DSA — distal suprategular apophysis, E — embolus, Em — embolic membrane, P — paracymbium, PME — posterior-median eyes; Pt — protegulum, Pti — pedipalpal tibia, SPT — suprategulum, St — subtégulum, T — tegulum, TP — radical tail-piece. All measurements are in mm.

### *Pelecopsis steppensis* sp.n.

Figs. 1a–e; 2a–b; 3a–d.

MATERIAL. Holotype: ♂ (Zoological Museum of Moscow State University (ZMMU)) Ukraine, the Crimea, Simferopol Distr., Skvortsovo Vil., dry meadow on the south slopes of a ravine, among sparse grass in small ground depressions, 15.04.2003, V.A. Gnelitsa. Paratypes: 2 ♀♀ (Zoology Department of the Sumy Teachers' Training University), same locality and date, V.A. Gnelitsa.

Other localities: ♂ (N.Yu. Polchaninova's private collection) southern Ukraine, Kherson Area, Ivano-Rybalchansky part of Chernomorsky Biosphery Reserve, Steppe, April 1991, N.Yu. Polchaninova.

DIAGNOSIS. The new species is closely related to *P. laptevi*. The males of two species can be easily distinguished by the slightly smaller body size of *P. steppensis* sp.n., and by the shape of the postocular sulci depressions which are drop-like and elongated in new species, and round in *P. laptevi*. *P. steppensis* sp.n. differs from *P. laptevi* by the smaller size of the palp, configuration of distal suprategular apophysis (DSA), less protuberant ventral part of tegulum (T) (Fig. 1c) and by the shape of palpal tibia (Pti) (Fig. 1d); cymbium bears straight finger-like proximal outgrowth in *P. steppensis*, whereas that of *P. laptevi* is sub-triangular.

Female of *P. steppensis* sp.n. differs from sibling species by appreciably larger general length and length of carapace, shorter distance between PME, and also by the epigyne width/height ratio; inner longitudinal passages of the epigyne are not curved but parallel. There are considerable differences in structure of vulva as well.

DESCRIPTION. MALE. Total length 1.42. Carapace (Fig. 3a,b) 0.62 long, 0.50 wide, grey-brown with rows of impressed dots dorsally. Sternum 0.39 long, 0.36 wide, dark brown gradually darkening towards its margins, covered with sparse impressed dots. PME separated by approximately 3 diameters. Chelicerae laterally with numerous densely arranged delicate stridulating ridges. Promargins of chelicerae with 3 teeth.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	0.41	0.15	0.29	0.25	0.23
II	0.35	0.15	0.26	0.24	0.22
III	0.29	0.15	0.24	0.22	0.18
IV	0.43	0.15	0.40	0.29	0.22

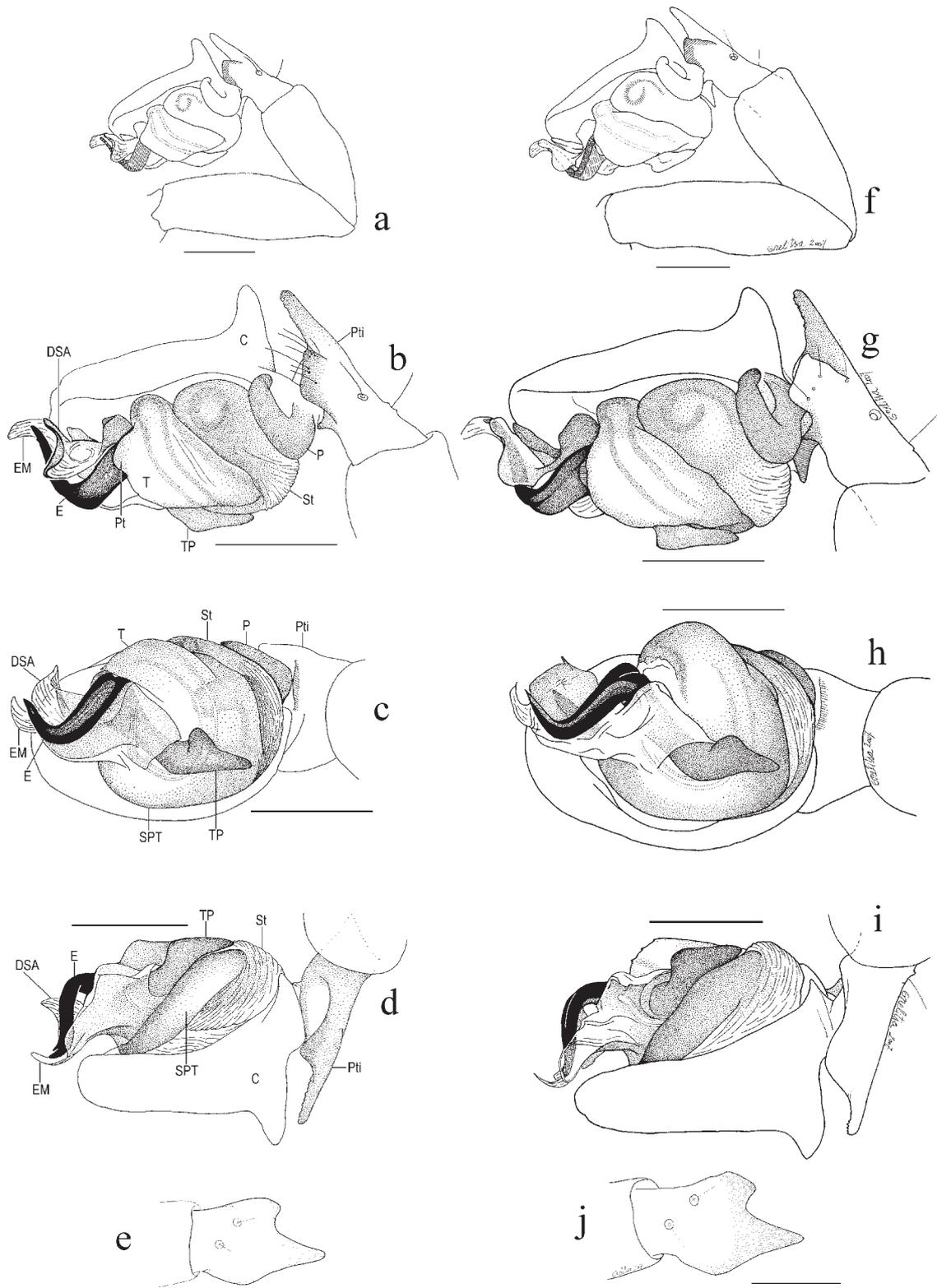


Fig. 1. *Pelecopsis steppensis* sp.n. male palp: a — general appearance; b–d — retrolateral, ventral and prolateral views respectively; e — tibia, dorsal view; *Pelecopsis laptevi* Tanasevitch & Fet, 1986 male palp: f — general appearance; g–i — retrolateral, ventral and prolateral view, respectively; j — tibia, dorsal view. Scale 0.1 mm.

Рис. 1. *Pelecopsis steppensis* sp.n. палепа самца: а — общий вид; б–д — вид сбоку, вентрально и медиально; е — голень дорзально; *Pelecopsis laptevi* Tanasevitch & Fet, 1986 палепа самца: ф — общий вид; г–и — вид сбоку, вентрально и медиально; ж — голень дорзально. Масштаб 0,1 мм.

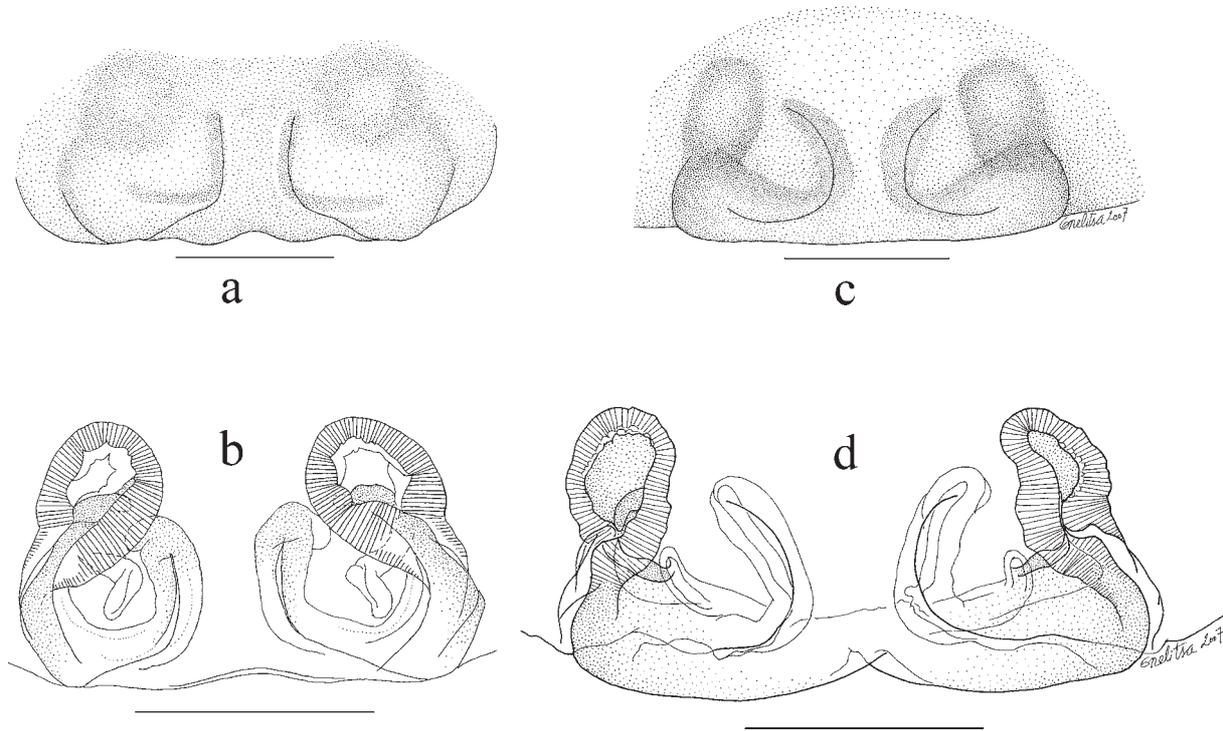


Fig. 2. *Pelecopsis steppensis* sp.n.: a — epigyne, ventral view; b — vulva; *Pelecopsis laptevi* Tanasevitch & Fet, 1986: c — epigyne, ventral view; d — vulva. Scale 0.1 mm.

Рис. 2. *Pelecopsis steppensis* sp.n.: a — эпигина, вид снизу; b — вульва; *Pelecopsis laptevi* Tanasevitch & Fet, 1986: c — эпигина, вид снизу; d — вульва. Масштаб 0,1 мм.

Tibial spination 0-1-1-1, TiI spines reduced, TiII spines very short and indistinct, TiIII — the biggest with the length nearly a half of the tibia diameter. Position of the metatarsal trichobothrium: I — 0.53, II — 0.56, III — 0.54.

Palp with elongated patella (0.77 patella/tibia ratio), cymbium bears straight finger-like proximal outgrowth Fig. 1a,b,d; palpal tibia with short rounded and long triangle outgrowths Fig. 1e. Abdomen dark grey with punctate dorsal and ventral scuta.

FEMALE. Total length 1.88. Carapace (Fig. 3c,d) 0.73 long, 0.62 wide, dark brown with radial rows of impressed pits. Sternum 0.43 long, 0.42 wide, dark brown gradually darkening towards its margins covered by rare impressed dots and separates coxae IV by more than coxae diameter. PME are separated by 1.6 their diameter. Chelicerae promargins with 3–4 teeth and retromargins with 1 tooth.

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus
I	0.46	0.19	0.39	0.29	0.25
II	0.42	0.18	0.34	0.29	0.22
III	0.36	0.18	0.29	0.29	0.21
IV	0.56	0.18	0.54	0.39	0.25

Tibial spination 1-1-1-1. Position of metatarsal trichobothrium: I — 0.59, II — 0.58, III — 0.56. Epigyne with parallel longitudinal parts of inner passages Fig. 2a, vulva — Fig. 2b. Abdomen dark grey, dorsally with 4 chitinous sigillae forming trapezium, ventrally with small light brown scutum in front of spinners.

ETYMOLOGY. The name is derived from the habitat, where new species has been collected.

*Pelecopsis laptevi* Tanasevitch & Fet, 1986  
Figs. 1f–j; 2c, d; 3e–h.

*P. l.* Tanasevitch & Fet, 1986: 35, pl. 2, f. 1–4 (D♂).

*P. l.* Tanasevitch, 1989: 145, f. 174–177 (♂, D♀).

MATERIAL. Holotype: ♂ south Turkmenistan, Badkhyz, Kepele cordon, under *Pistacia*, 18.01.1978, Atamuradov; 7♂♂ 7♀♀ south Turkmenistan, Badkhyz Plateau, Kyzyl-Djar, litter under *Ephedra*, 17–28.02.1978, V.A. Krivokhatsky; ♂ South-West Kopetdah, Aidere ravine, litter under *Acer*, 20–30.03.1980, V.Y. Fet.

MALE. Total length 1.50. Carapace 0.68 long, 0.55 wide, with rounded postocular sulci depressions, sternum 0.39 long, 0.39 wide, chelicerae promargins with 3 teeth. Tibial spination 0-0-1-1, position of metatarsal I trichobothrium 0.53. Abdomen dorsally with scutum covering almost the whole dorsal surface. Palp as in Figs. 1f–j; cymbial outgrowth sub-triangular, slightly curved.

FEMALE. Total length 1.68. Carapace 0.63 long, 0.60 wide, PME separated by 2 diameters; sternum 0.39 long, 0.39 wide; tibial spination 1-1-1-1, position of the metatarsal I trichobothrium 0.55. Leg I — femur 0.45, patella 0.18, tibia 0.38, metatarsus 0.28, tarsus 0.23; leg IV — femur 0.58, patella 0.18, tibia 0.50, metatarsus 0.36, tarsus 0.25. Epigyne wide anchor shaped with curved inner longitudinal passages.

DIAGNOSIS. See under *P. steppensis* sp.n.

ACKNOWLEDGEMENTS. I am very much obliged to Dr. Andrey Tanasevitch for kindly submitting of *Pelecopsis laptevi* specimens and Dr. Yuri Marusik (Magadan, Russia) for his kind help in obtaining papers essential for this study as well as fruitful discussions.

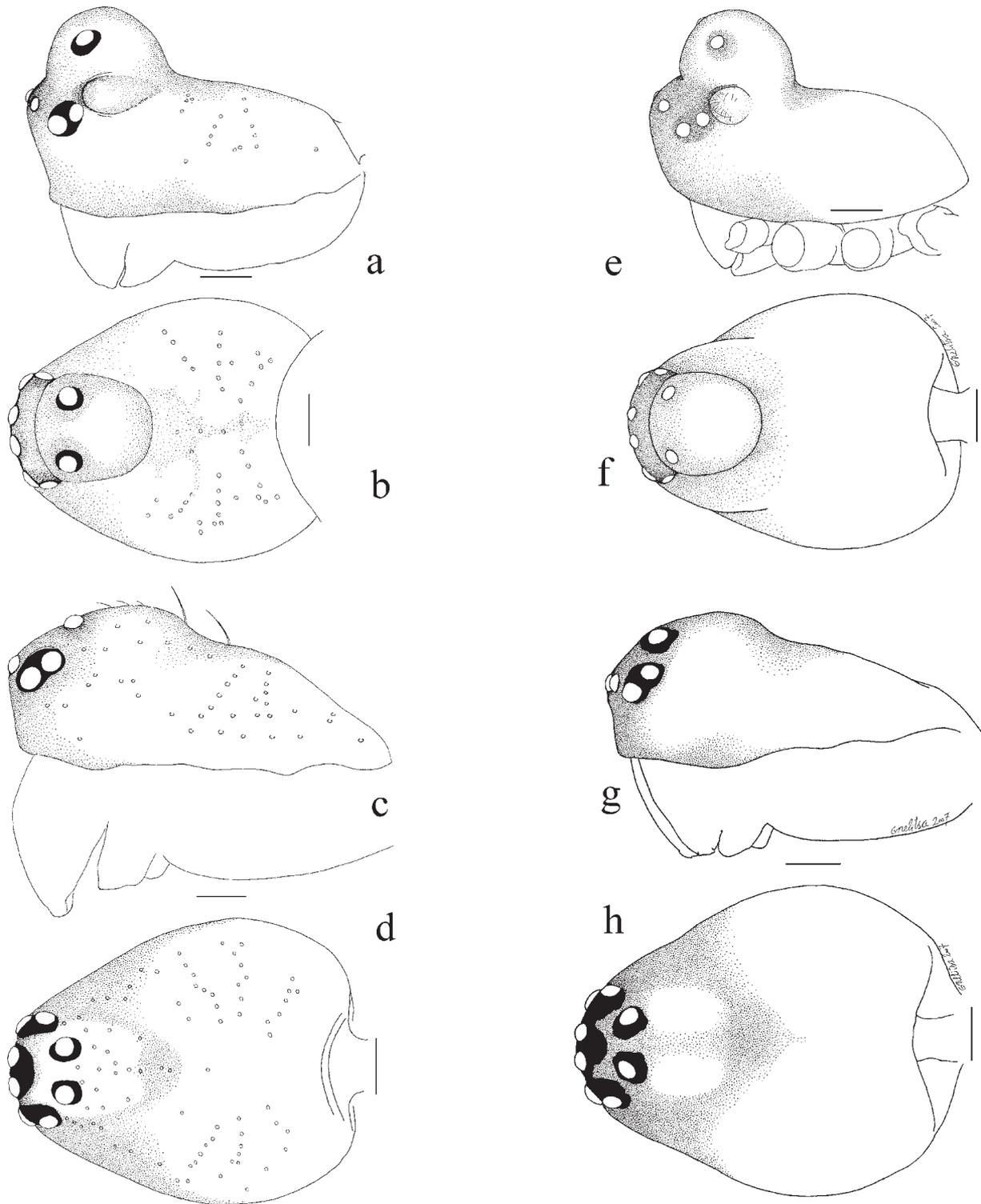


Fig. 3. *Pelecopsis steppensis* sp.n.: a-b — male carapace, lateral and dorsal view, respectively; c-d — female carapace, lateral and dorsal view, respectively; *Pelecopsis laptevi* Tanasevitch & Fet, 1986: e-f — male carapace, lateral and dorsal view, respectively; g-h — female carapace, lateral and dorsal view, respectively. Scale 0.1 mm.

Рис. 3. *Pelecopsis steppensis* sp.n.: a-b — карапак самца, вид сверху и вид сбоку; c-d — карапак самки, вид сверху и вид сбоку; *Pelecopsis laptevi* Tanasevitch & Fet, 1986: e-f — карапак самца, вид сверху и вид сбоку; g-h — карапак самки, вид сверху и вид сбоку. Масштаб 0,1 мм.

## References

- Hormiga G. 2000. Higher level phylogenetics of erigonine spiders (Araneae, Linyphiidae, Erigoninae) // *Smithson. Contrib. Zool.* No.609. P.1–160.
- Tanasevitch A.V. 1989. The linyphiid spiders of Middle Asia (Arachnida: Araneae: Linyphiidae) // *Senckenberg. biol.* Bd.69. P.83–176.
- Tanasevitch A.V., Fet V.Ya. 1986. [Materials to the spider fauna (Aranei) of Turkmenistan. III. Family Linyphiidae] // *Izv. Akad. Nauk turkmen. SSR (Biol. Nauk)* T.1. P.33–42 [in Russian].