

First description of the female of *Evippa caucasica* Marusik, Guseinov et Koponen, 2003 (Aranei: Lycosidae)

Описание самки *Evippa caucasica* Marusik, Guseinov et Koponen, 2003 (Aranei: Lycosidae)

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Key words: Araneae, Azerbaijan, the Caucasus, wolf spiders.

Ключевые слова: Araneae, Азербайджан, Кавказ, пауки-волки.

Abstract. *Evippa caucasica* Marusik, Guseinov et Koponen, 2003, known only from the holotype male collected from Azerbaijan (Gobustan), is here described from the female of this species for the first time; its diagnosis, habitus illustrations of both sexes, male palp and female copulatory organs, and a distributional map are provided.

Резюме. *Evippa caucasica* Marusik, Guseinov et Koponen, 2003 описана по самцу из Азербайджана. В статье мы впервые описываем самку этого вида, приводим диагноз самки, иллюстрации габитусов обоих полов, пальцы самца и копулятивных органов самки и карту распространения.

Introduction

The genus *Evippa* Simon, 1882 contains 37 species [World Spider Catalog, 2021]. African members of the genus were revised by Alderweireldt [1991]. Later, two species were described from eastern Kazakhstan by Eskov and Marusik [1995] (*E. sibirica* Marusik, 1995) and China by Chen, Song and Kim [1998] (*E. lugubris* Chen, Song et Kim, 1998). Marusik et al. [2003] provided information on 10 *Evippa* species, among which six from Middle Asia were illustrated. Moreover, two species from Azerbaijan were described, *E. caucasica* from the male and *E. apsheronica* from the female. The latter species name was recently synonymized with *Halo-cosa cereipes* (L. Koch, 1878) by Azarkina and Trilikauskas [2019]. In this paper we are providing a description of the female of *E. caucasica* for the first time,

illustrations of the habitus of both sexes, male palp and female copulatory organs, and a distributional map (Figs 1–12).

Material and methods

The specimens used in this study have been deposited in the Institute of Systematics and Ecology of Animals SB RAS, Novosibirsk, Russia (ISEA, curator G.N. Azarkina). Specimens were studied in 70 % ethanol and their coloration refers to that of preserved specimens. All drawings were made with the aid of a reticular eyepiece attached to a MBS-10 stereomicroscope at ISEA. Photographs of preserved specimens were taken with a Canon EOS 550D camera attached to a Zeiss Stemi 2000-C stereomicroscope at ISEA. After photos and drawings were taken, parts were placed in microvials and stored with specimens. The drawings were edited in Adobe Photoshop CS5.

Abbreviation used in the text: d — dorsal; EW — epigynal wings; Fm — femur; Mt — metatarsus; pr — prolateral; Pt — patella; R — receptacula; RS — receptacula stem; rt — retrolateral; S — septum; Tb — tibia; v — ventral. The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus (total). All measurements are in millimetres (mm). Terminology follows Alderweireldt [1991], Zyuzin [1993], and Azarkina, Trilikauskas [2019]. The distributional map was compiled using the online mapping software SimpleMappr [Shorthouse, 2010].



Figs 1–7. *Evippa caucasica* Marusik, Guseinov et Koronen, 2003: 1–2 — male habitus, dorsal view (1 — holotype, 2 — newly collected specimen); 3 — female habitus, same; 4 — leg I, male, prolateral view; 5 — same, female; 6 — male's carapace, lateral view; 7 — epigyne, ventral view. Scale bars 1 mm.

Рис. 1–7. *Evippa caucasica* Marusik, Guseinov et Koronen, 2003: 1–2 — габитус самца, дорсально (1 — голотип, 2 — самец из новых сборов); 3 — габитус самки, то же; 4 — нога I самца, пролатерально; 5 — то же, самка; 6 — карапакс самца, латерально; 7 — эпигина, вентрально. Масштабная линейка 1 мм.

Taxonomy

Aranei

Lycosidae

Evippinae Zyuzin, 1985

Evippa Simon, 1882

Evippa caucasica Marusik, Guseinov et Koponen, 2003

Figs 1–12.

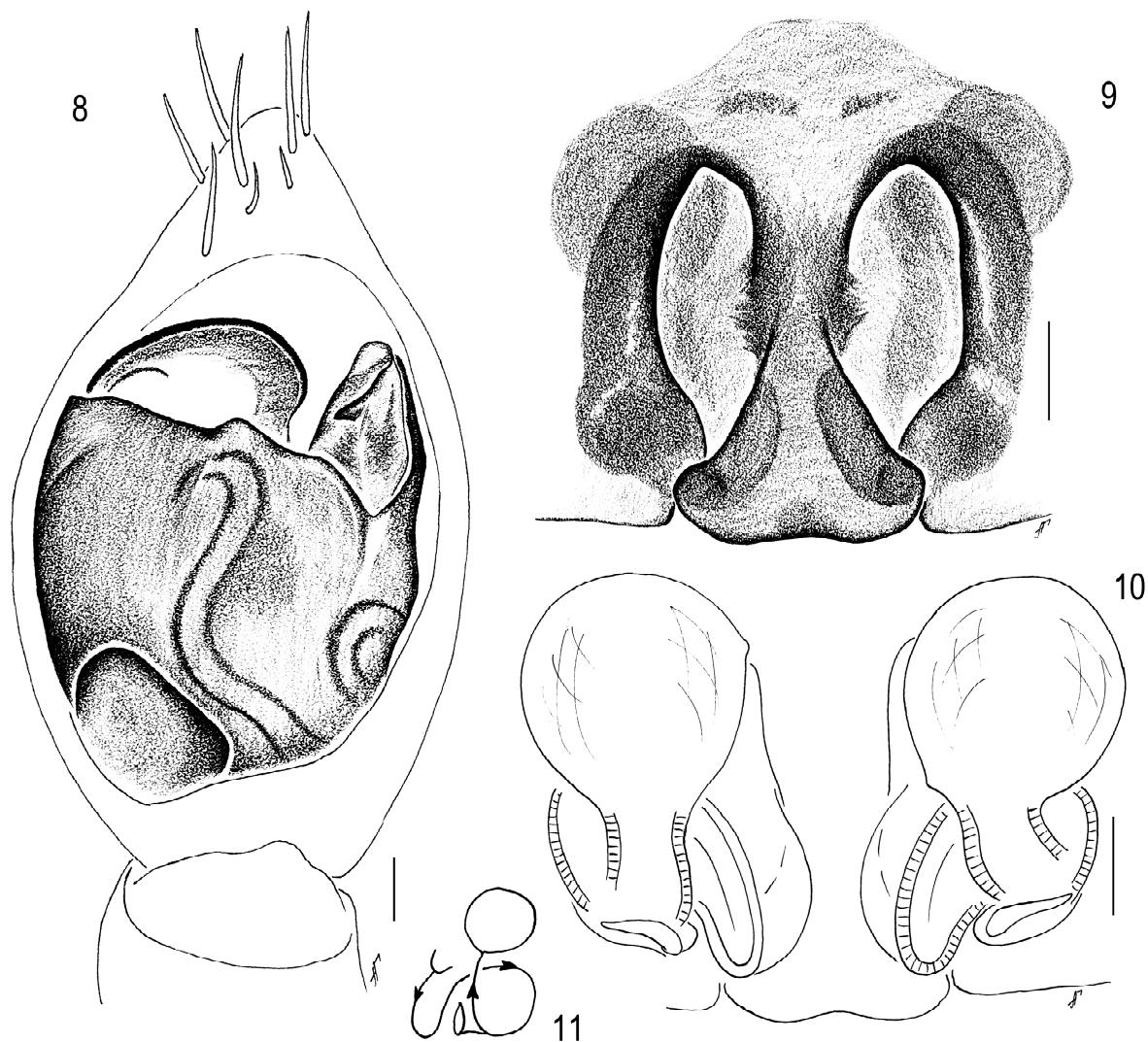
Evippa caucasica Marusik, Guseinov et Koponen, 2003: 52, Fig. 4–6 (D♂, examined).

Material. Holotype — ♂ (ZMMU, Ta-7664) Azerbaijan, Gobustan [= Qobustan], Beyuk-dash Mt., c. 40°05'N, 49°25'E, 15.04.2001, leg. E.F. Huseynov; 1♂, 1♀ (ISEA, 001.8832) Azerbaijan, Gobustan [= Qobustan], vicinity of Beyuk-dash Mt., c. 40°06' N, 49°22' E, 6–12.05.2010, leg. E.F. Huseynov, T.V. Nuruyeva.

Diagnosis. For the male see Marusik et al. [2003]. In the conformation of the copulatory organs, the female of

E. caucasica resembles that of *E. schenkeli* Sternbergs, 1979 but differs in having the short and wide stem of receptaculæ (Fig. 10), which are longer and thinner in *E. schenkeli* [Marusik et al., 2003: Fig. 27]; the thinner triangle septum and the wider epigynal wings (Fig. 9) compared to the shovel-shaped septum and thin epigynal wings in *E. schenkeli* [Marusik et al., 2003: Fig. 26]. The female of *E. caucasica* has almost a uniform body colouration (Fig. 3), while *E. schenkeli* has two longitudinal brown stripes on the light coloured carapace and abdomen, with a clearly visible pattern [Marusik et al., 2003: Fig. 25].

Description. **Female:** Total length 8.70 mm. Carapace 3.50 long, 2.65 wide, dark gray-brown, covered with fine white short setae. Sternum dark brown, covered with white short setae. Labium and endites brown, pale apically. Chelicerae brown, covered with long strong brown setae. Cymbium brownish yellow, with long sparse brown setae. Abdomen 4.20 long, 3.05 wide, gray-brown, without well visible



Figs. 8–11. *Evippa caucasica* Marusik, Guseinov, Koronen, 2003: 8 — male palp, ventral view; 9 — epigyne, ventral view; 10 — vulva, dorsal view; 11 — scheme of insemination ducts. Scale bars 0.1 mm

Рис. 8–11. *Evippa caucasica* Marusik, Guseinov, Koronen, 2003: 8 — пальпа самца, вентрально; 9 — эпигина, вентрально; 10 — вульва, дорсально; 11 — схема оплодотворительных каналцев. Масштабная линейка 0,1 мм.



Fig. 12. Distribution of *Evippa caucasica*: red dot — Holotype locality.

Рис. 12. Распространение *Evippa caucasica*: красная точка — локалитет голотипа.

pattern, with barely visible two longitudinal rows of 5 pairs of brown patches, covered with short white setae. Spinnerets yellow. Book-lung covers grayish brown. All legs yellow, with brown patches and semi-ring basally and distally. Copulatory organs as in Figs 7, 9–11: epigyne almost equal in length and width; central septum triangle, with broad epigynal wings around two epigynal atria. Vulva with two big rounded receptacles. Copulatory openings located at the bottom half of epigyne.

Length of leg segments:

	femur	patella	tibia	metatarsus	tarsus	total
I	2.75	1.20	2.20	2.00	1.35	9.50
II	2.55	1.30	2.35	2.18	1.20	9.58
III	2.65	1.25	2.25	2.20	1.20	9.55
IV	4.00	1.40	2.90	3.90	2.80	15.05

Female leg setation:

	femur	tibia	tibia	metatarsus
I	d 3, pr 2, rl 2	d 2, pr 1, rl 1	v 5, pr 2, rl 2	v 3, pr 1
II	d 3, pr 2, rl 2	d 2, pr 1, rl 1	v 5, pr 2, rl 2	v 3, pr 1
III	d 3, pr 2, rl 2	d 2, pr 1, rl 1	d 2, pr 2, rl 2, v 2	pr 3, rl 2, v 2
IV	d 3, pr 2, rl 2	d 2, pr 1, rl 1	d 2, pr 2, rl 2, v 2	d 2, pr 3, rl 2, v 2

Male: See Marusik *et al.*, 2003.

Distribution. Endemic of eastern Azerbaijan (Fig. 12).

Acknowledgements

This work was supported by Federal Fundamental Scientific Research Programme, project 0247-2021-0004 (for GA). Dmitri V. Logunov (Manchester, United Kingdom) is thanked for useful comments and linguistic help.

References

- Alderweireldt M. 1991. A revision of the African representatives of the wolf spider genus *Evippa* Simon, 1882 (Araneae, Lycosidae) with notes on allied species and genera // Journal of Natural History. Vol.25. No.2. P.359–381. doi:10.1080/00222939100770261
- Azarkina G.N., Trilikauskas L.A. 2019. *Halocosa* gen. n., a new genus of Lycosidae (Araneae) from the Palaearctic, with a redescription of *H. cereipes* (L. Koch, 1878) // Zootaxa. Vol.4629. No.4. P.555–570. doi:10.11646/zootaxa.4629.4.4
- Chen J., Song D.X., Kim J.P. 1998. Two new species and two new records of Chinese wolf spiders (Araneae: Lycosidae) // Korean Arachnology. Vol.14. No.1. P.70–76. [also reprinted in Korean Arachnology. Vol.14. No.2. P.66–72]
- Eskov K.Y., Marusik Y.M. 1995. On the spiders from Saur Mt. range, eastern Kazakhstan (Arachnida: Araneae) // Beiträge zur Araneologie. Vol.4(1994). P.55–94. [Publ. in Dec. 1995].
- Marusik Y.M., Guseinov E.F., Koponen S. 2003 Spiders (Arachnida: Aranei) of Azerbaijan. 2. Critical survey of wolf spiders (Lycosidae) found in the country with description of three new species and brief review of Palaearctic *Evippa* Simon, 1885 // Arthropoda Selecta. Vol.12. No.1. P.47–65.

- Shorthouse D.P. 2010. SimpleMappr, an online tool to produce publication-quality point maps. Available from <http://www.simplemappr.net> [accessed 22 October 2021].
- World Spider Catalog 2021. World Spider Catalog, version 22.5. Natural History Museum, Bern. Available from <http://wsc.nmbe.ch> [accessed 24 October 2021] <https://doi.org/10.24436/2>.
- Zyuzin A.A. 1993. Studies on the wolf spiders (Araneae: Lycosidae). I. A new genus and species from Kazakhstan, with comments on the Lycosinae // Memoirs of the Queensland Museum. Vol.33. P.693–700.

Поступила в редакцию 12.10.2021