

## Two new erigonine spiders from the steppe of the East European Plain (Aranei: Linyphiidae: Erigoninae)

### Два новых паука-эригонин из степей Русской равнины (Aranei: Linyphiidae: Erigoninae)

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КЛЮЧЕВЫЕ СЛОВА: Пауки, Linyphiidae, Erigoninae, новый род, новый вид, степи.

ABSTRACT. A new monobasic genus, *Russocampus* gen.n., with *R. polchaninovae* sp.n. as type species (Belgorod Area, Russia), and *Walckenaerianus esyunini* sp.n. (Orenburg Area, Russia) are described from the steppe regions of the East European Plain.

РЕЗЮМЕ. Из степей юга Восточно-Европейской равнины описаны новый род *Russocampus* gen.n. с типовым видом *R. polchaninovae* sp.n. (Россия, Белгородская обл.) и новый вид *Walckenaerianus esyunini* sp.n. (Россия, Оренбургская обл.).

#### Introduction

Although the spider fauna of the plain regions of Eastern Europe can rightly boast to be well-known, occasionally new collections still reveal surprises. These usually come from the steppe regions. Thus, material taken from steppe in the Belgorod Area, Russia appears to contain a new genus and species, whereas salinas in the Orenburg Area, Russia support another new species close to a Mongolian high-montane congener. All these samples have kindly been passed to me for study and description by N. Polchaninova (Kharkov, Ukraine) and S. Esyunin (Perm, Russia). The present paper is devoted to their description.

Type material has been deposited in the collection of the Zoological Museum of the Moscow State University (ZMMU) and in the collection of the Perm State University (PGU).

#### ABBREVIATIONS

The following abbreviations are used in the text and figures: E — embolus, ED — embolic division, SA — suprategular apophysis, MSA — membrane of SA, X — x-sclerite. The chaetotaxy formula such as 2.2.1.1 refers to the number of dorsal spines on tibia I–IV, respectively. TmI — position of the trichobothrium on tibia I. The sequence of leg segments in measurement data is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given hereinafter in mm. Scale line in figures = 0.1 mm, except if otherwise indicated.

#### Descriptions

##### *Russocampus* gen.n.

Type species — *Russocampus polchaninovae* sp.n.

ETYMOLOGY. The generic name is composed of *Russ-* and Latin “*campus*”, meaning “Russia” and “steppe”, respectively.

DIAGNOSIS. The new genus can easily be recognized by the presence of long and strong setae on the retrolateral side of the palpal tibia and cymbium, by the complex shape of the palpal tibia, by the long, thick and coil-shaped embolus, as well as by the well-developed membrane of the suprategular apophysis.

DESCRIPTION. Medium-sized erigonine, total length 1.75–2.10 mm. Cephalic part of male carapace elevated, cephalic pits absent. Palpal tibia sickle-shaped with a long and pointed main branch. Retrolateral side of palpal tibia and cymbium carrying long and strong setae. Tegulum elongated, conical in form. Suprategular apophysis not large, tongue-shaped with a well-developed membrane. Embolic division with a small radical part and a long, thick, coil-shaped embolus. Epigyne with a small rounded hole. Posterior part of epigyne with two nipple-shaped outgrowths directed to each other. Chaetotaxy unclear: tibial spines lost. Metatarsi IV without trichobothrium. TmI — 0.75–0.82.

Taxonomic remarks. According to the structure of the embolic division, the new genus belongs to the *Walckenaeria*-group sensu Millidge [1977], where it seems to be close to *Moebelia* Dahl, 1886 and *Evansia* O. Pickard-Cambridge, 1900. *Russocampus* gen.n. is distinguished from both by the thick embolus, the well-developed suprategular membrane, the structure of the tibia (which resembles that of *Dicymbium* Menge, 1868), the absence of a metatarsal trichobothrium (different from *Moebelia*), the larger TmI, and a different epigyne.

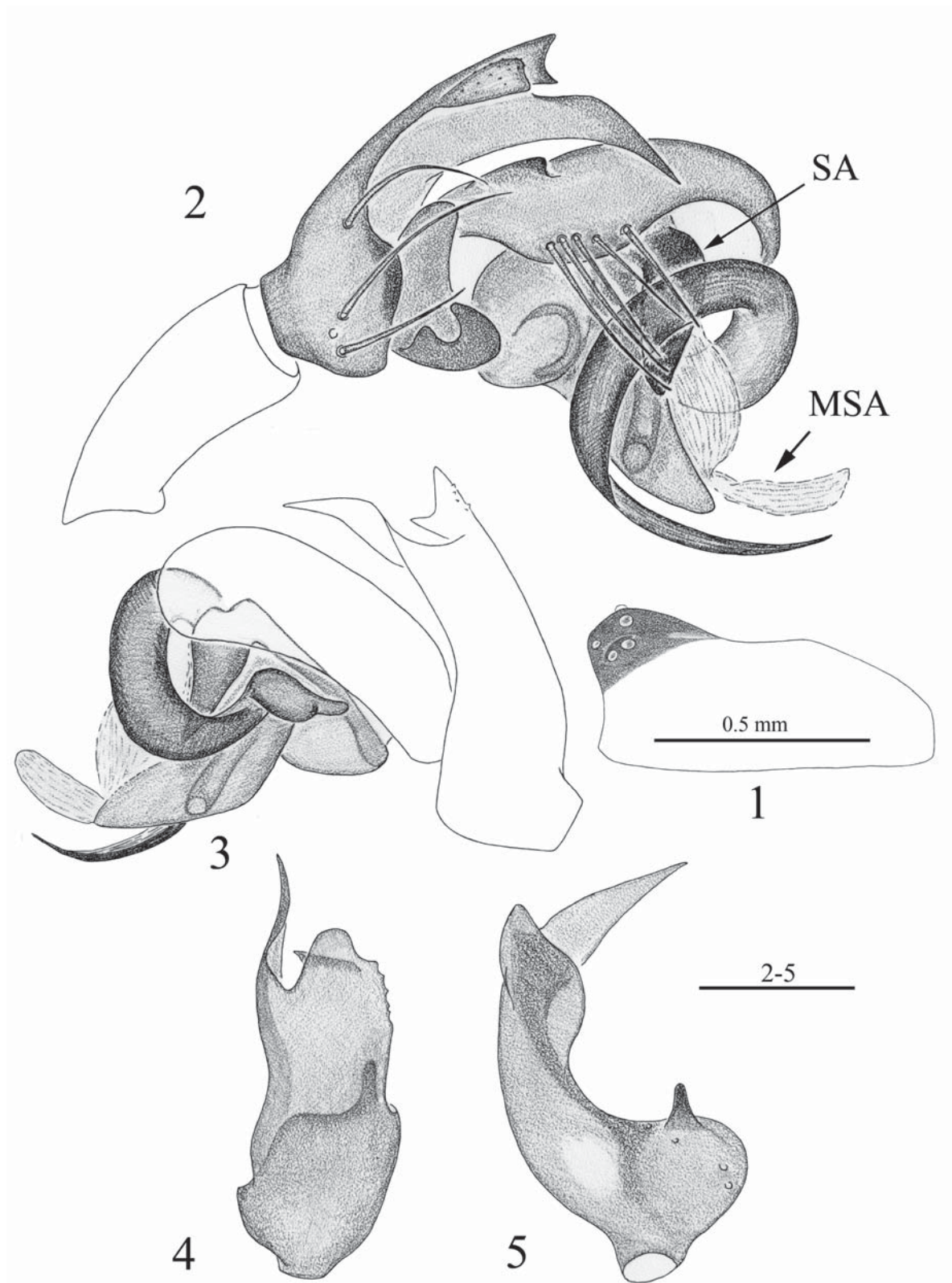
COMPOSITION. The new genus contains the type species only.

DISTRIBUTION. Known only from the type locality.

##### *Russocampus polchaninovae* sp.n.

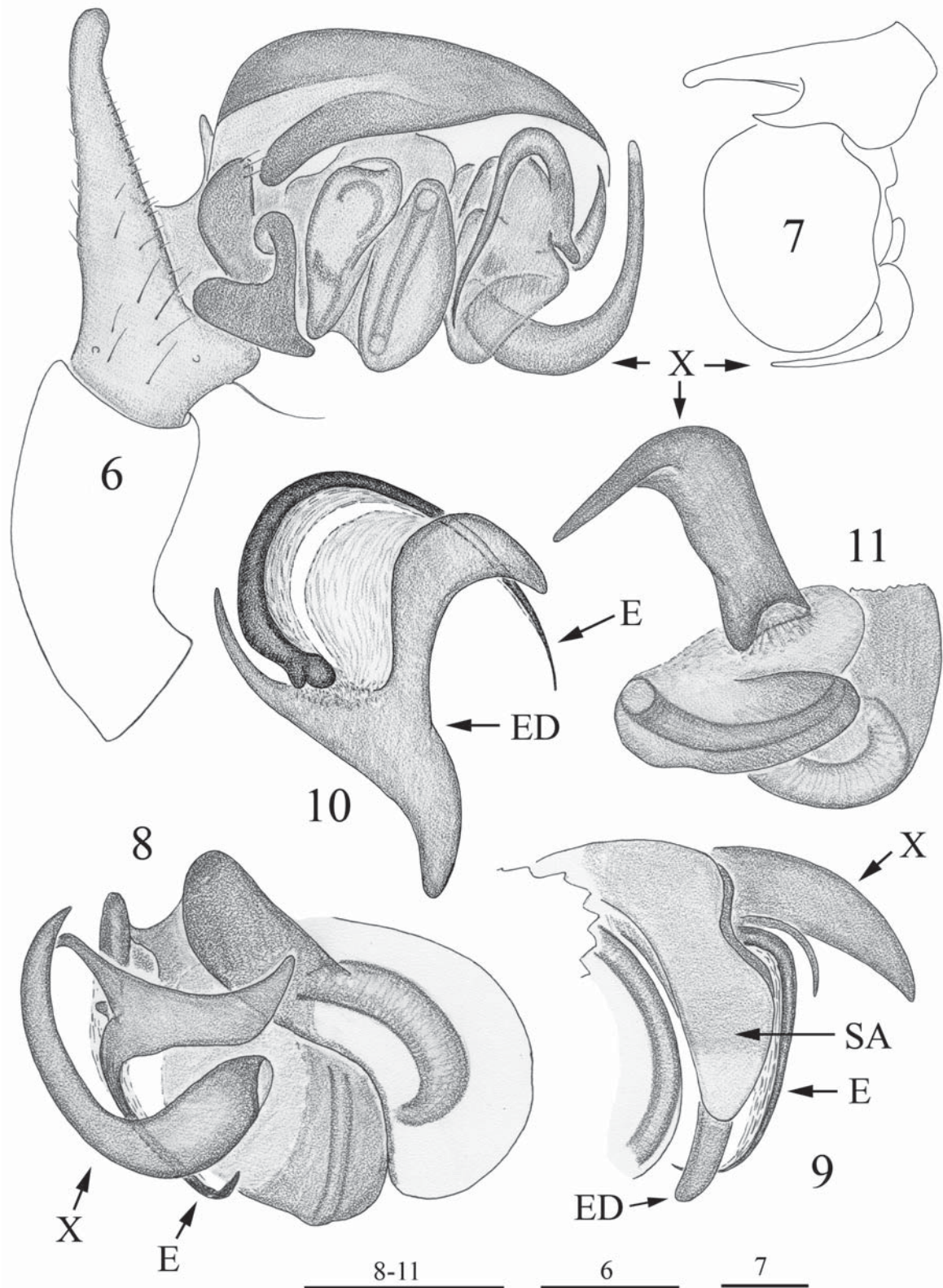
Figs. 1–5, 18, 19.

Material. Holotype ♂ (ZMMU), RUSSIA, Belgorod Area, Gubkin District, 10 km NE of Sergievka, Belogorie Reserve,



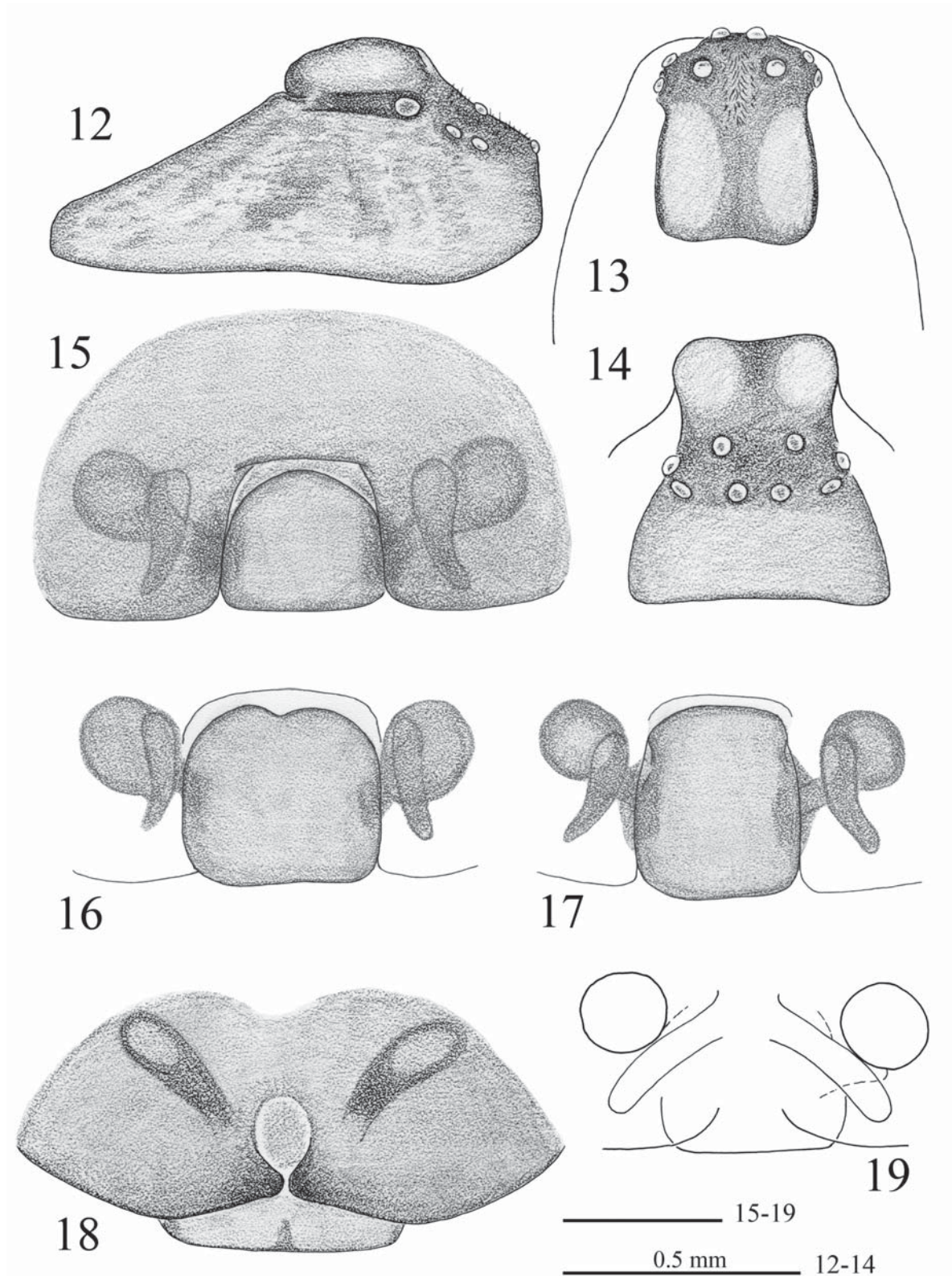
Figs. 1–5. Male carapace and palp of *Russocampus polchaninovae* sp.n. 1 — carapace, 2, 3 — right palp (retrolateral and prolateral view, respectively), 4, 5 — palpal tibia.

Рис. 1–5. Карапакс и пальпа самца *Russocampus polchaninovae* sp.n. 1 — карапакс, 2, 3 — правая пальпа (ретролатерально и пролатерально, соответственно), 4, 5 — голень пальпы.



Figs. 6–11. Male palp of *Walckenaerianius esyunini* sp.n. 6–8 — right palp (retrolateral, prolateral and ventral view, respectively), 9 — suprategular apophysis & embolic division, 10 — embolic division, 11 — x-sclerite & tegulum.

Рис. 6–11. Пальпа самца *Walckenaerianius esyunini* sp.n. 6–8 — правая пальпа (ретролатерально, пролатерально и вентрально, соответственно), 9 — супратегулярная апофиза и эмболюсный отдел, 10 — эмболюсный отдел, 11 — x-склерит и тегулюм.



Figs. 12–19. Male carapace and female epigyne of *Walckenaerianius esyunini* sp.n. (12–17) & *Russocampus polchaninovae* sp.n. (18, 19). 12–14 — carapace (lateral, dorsal & frontal view, respectively), 15–18 — epigyne (ventral view), 19 — vulvae (dorsal view).

Рис.12–19. Карапакс самца и эпигина самки *Walckenaerianius esyunini* sp.n. (12–17) & *Russocampus polchaninovae* sp.n. (18, 19). 12–14 — карапакс (латерально, дорсально и фронтально, соответственно), 15–18 — эпигина (вентралью), 19 — эндогина (дорсально).

steppe, 20–23.VI.2003, leg. N. Polchaninova. Paratypes: 2 ♂♂, 2 ♀♀ (ZMMU), same date and locality.

**ETYMOLOGY.** Named in honour of the well known Ukrainian arachnologist, Dr Nina Polchaninova (Kharkov, Ukraine), who collected this species.

**DESCRIPTION.** Male. Total length — 1.78. Carapace 0.83 long, 0.63 wide, brown, with cephalic elevation as in Fig. 1. Legs yellow. Leg I — 2.51 long (0.73 + 0.18 + 0.55 + 0.65 + 0.40), IV — 2.54 long (0.73 + 0.20 + 0.63 + 0.65 + 0.33). Chaetotaxy unclear: spines totally reduced or lost. TmI — 0.76. Trichobothrium IV absent. Palp (Figs. 2–5): see above. Abdomen 1.00 long, 0.73 wide, dark grey.

Female. Total length — 2.00. Carapace 0.75 long, 0.60 wide, brown, unmodified. Leg I — 2.44 long (0.68 + 0.23 + 0.58 + 0.60 + 0.35), IV — 2.48 long (0.75 + 0.20 + 0.63 + 0.60 + 0.30). Chaetotaxy unclear: spines lost. TmI — 0.81. Trichobothrium IV absent. Abdomen 1.35 long, 0.90 wide, dark grey. Epigyne with a small rounded hole. Posterior part of epigyne with two nipple-shaped outgrowths directed to each other, as in Figs. 18. Vulvae as Fig. 19.

#### *Walckenaerianus* Wunderlich, 1995

**REMARKS.** The hitherto monobasic genus *Walckenaerianus*, with *W. aimakensis* Wunderlich, 1995 as type species, has been described from Central Aimak (1600 m a.s.l.), Mongolia [Wunderlich, 1995].

Besides some other traits, the genus is characterized by the presence of a long narrow sclerite (“x-sclerite”) in the male palp jointed directly to the tegulum. This sclerite has no connection with the embolic division, instead being weakly jointed to the tegulum and thus easily detachable. As nothing like this structure seems to be known among the other erigonines, this observation requires a more detailed analysis in the future.

#### *Walckenaerianus esyunini* sp.n. Figs. 6–17.

**ETYMOLOGY.** The species is named in honour of the well-known Russian arachnologist, Dr Sergei Esyunin (Perm, Russia).

Material. Holotype ♂ (ZMMU), RUSSIA, Orenburg Province, Svetlyi District (the easternmost part of Orenburg Area),

Lake Shalkar-Ega-Kara, *Artemisia* steppe & salt-marshes, pitfall traps, 16.VII–25.VIII.2002, leg. Tuneva. Paratypes: 2 ♂♂, 5 ♀♀ (ZMMU) and 3 ♂♂, 5 ♀♀ (PGU), same date and locality.

**DESCRIPTION.** Male. Total length — 2.43. Carapace 1.50 long, 0.85 wide, dark brown, with cephalic elevation as in Figs. 12–14. Cephalic pits large-sized. Legs pale brown. Leg I — 3.11 long (0.85 + 0.30 + 0.78 + 0.73 + 0.45), IV — 3.63 long (0.95 + 0.30 + 0.95 + 0.93 + 0.50). Chaetotaxy: 2.2.1.1, tibial spines very short. TmI — 0.70. Trichobothrium IV presence. Palp as in Figs. 6–11. Abdomen 1.05 long, 0.80 wide, dark grey.

Female. Total length — 3.50. Carapace 1.28 long, 1.05 wide, pale brown to dark brown, unmodified. Leg I — 3.79 long (1.05 + 0.43 + 0.88 + 0.83 + 0.60), IV — 4.59 long (1.23 + 0.43 + 1.20 + 1.10 + 0.63). Chaetotaxy: 2211, length of spines as 1–1.5 D of tibia. TmI — 0.80. Trichobothrium IV presence. Abdomen 2.25 long, 1.63 wide, grey to dark grey. Paler specimens showing a poorly visible, pale, dorsal, median stripe. Epigyne: Median plate highly variable in shape, as in Figs. 15–17.

**TAXONOMICAL REMARKS.** The new species is closely related to *W. aimakensis* but is distinguished in shape of the tibial outgrowths which are different in size, by the structure of the embolic division, which is larger and V-shaped in *W. esyunini* sp.n., as well as by the parallel borders of the epigynal cavity.

**DISTRIBUTION.** The new species is only known from the type locality.

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