

## *Bureyanus* gen.n. from the Russian Far East (Aranei: Linyphiidae: Erigoninae)

## *Bureyanus* gen.n. из Российского Дальнего Востока (Aranei: Linyphiidae: Erigoninae)

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КЛЮЧЕВЫЕ СЛОВА: таксономия, паукообразные, Палеарктика, новый род, новый вид.

**ABSTRACT.** A new genus, *Bureyanus* gen.n., with *Bureyanus hastatus* sp.n. as the type species, is described based on a single male from the Khabarovsk Province, Russia. The genus somewhat resembles *Sisicus* Bishop et Crosby, 1938, being diagnosed by a chaetotaxy formula (2.2.2.2) uncommon in the subfamily Erigoninae, coupled with a highly peculiar structure of the palp.

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**РЕЗЮМЕ.** Новый род *Bureyanus* gen.n. с типовым видом *Bureyanus hastatus* sp.n. описан по одному экземпляру самца из Хабаровского Края (Россия). Род характеризуется довольно редкой для представителей подсемейства Erigoninae формулой хетотаксии (2.2.2.2), а также своеобразным строением пальпы, имеющей некоторое сходство с таковой у представителей рода *Sisicus* Bishop et Crosby, 1938.

### Introduction

A single erigonine male of unclear generic position, collected from the Khabarovsk Province, Russia, has long been kept in my personal collection awaiting new material or at least of a conspecific female. Since this has failed to happen for the last two decades, I have decided to describe this sole male which represents not only a new species, but also a new genus. As its peculiar structure of the palp, coupled with a chaetotaxy formula, 2.2.2.2, unusual in most erigonines, as well as the absence of a corresponding female do not allow me to reliably place the species into any known genus, I feel prompted to describe this single male as representing a new genus and species.

### Material and methods

The holotype is kept in the Zoological Museum of the Moscow State University, Moscow, Russia (ZMMU). The sample is preserved in 70% ethanol and has been studied using a MBS-9 stereo microscope. A Levenhuk C-800 digital camera was applied for taking the pictures. The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given in millimeters. The chaetotaxy is given in a formula, e.g., 2.2.2.2, which refers to the number of dorsal spines on tibiae I–IV. Scale bars in the figures correspond to 0.1 mm unless indicated otherwise. The terminology concerning the structure of the copulatory organs mainly follows that of Merrett [1963], as well as those of the authors mentioned in the Abbreviations section below. The classification of subfamilies in the Linyphiidae is used here in the classical sense (see the World Spider Catalog [2022]).

The following abbreviations are used in the text and figures: C — convector *sensu* Tanasevitch [1998], = “lamella” in Merrett [1963], = lamella characteristica in Hormiga [2000]; CA — column attachment place; D — duct; DSA — distal supratarsal apophysis *sensu* Hormiga [2000]; E — embolus; PH — pit-hook *sensu* Saaristo [1973], = median apophysis in Helsdingen [1965]; P — protegulum *sensu* Holm [1979]; Pa — paracymbium; R — radix; RA — radical apophysis; TmI — position of a trichobothrium on metatarsus I.

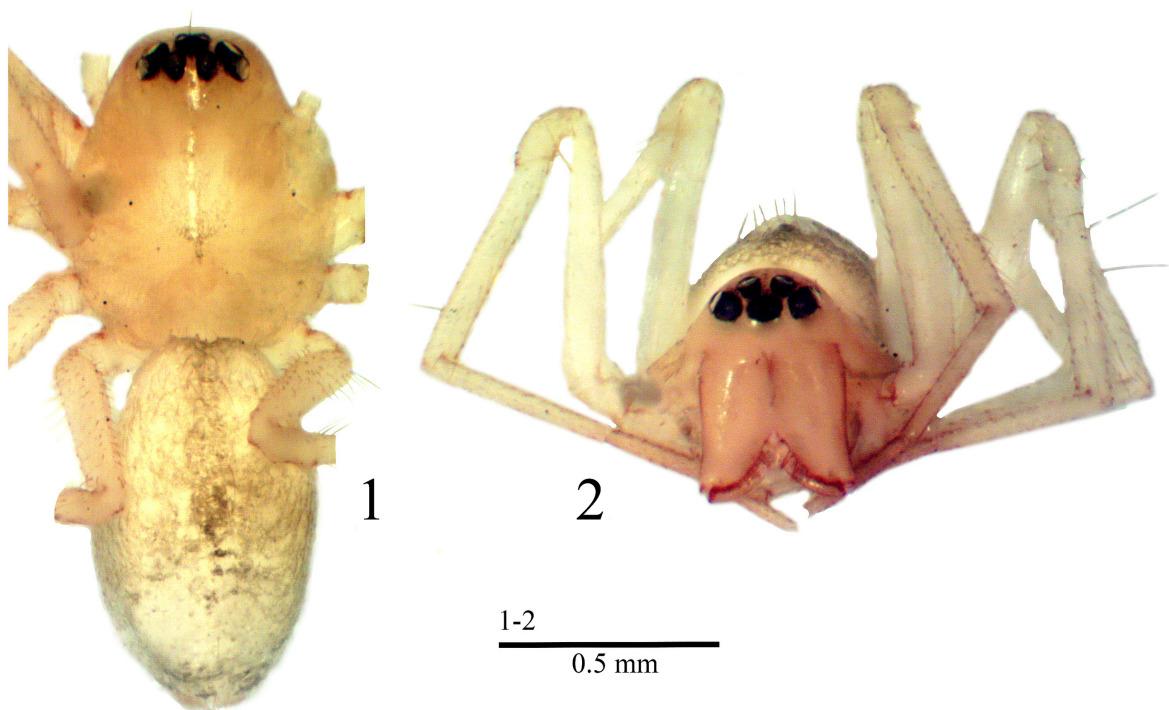
### Taxonomy

Class Arachnida Cuvier, 1812  
Order Aranei Clerck, 1758  
Family Linyphiidae Blackwall, 1859  
Subfamily Erigoninae Emerton, 1882

### *Bureyanus* gen.n.

TYPE SPECIES: *Bureyanus hastatus* sp.n.

NAME. The generic name is a Latin adjective, derived from the Bureya River basin, referring to the origin area of the new taxon. The gender is masculine.



Figs 1–2. *Bureyanus hastatus* sp.n., ♂ holotype, photo. 1 — habitus, dorsal view; 2 — prosoma, frontal view.

Рис. 1–2. *Bureyanus hastatus* sp.n., ♂ голотип, фото. 1 — внешний вид сверху; 2 — головогрудь спереди.

[1965], who instead of a “pit-hook” used the term “median apophysis”. This pit-hook seems likely to perform a similar function in *Bureyanus* gen.n., in which case the epigyne of the conspecific female could have a pit/socket corresponding to the size of the hook.

The number of genera of Erigoninae that are characterized by the 2.2.2.2 formula of chaetotaxy, coupled with the absence of a trichobothrium on metatarsi IV, totals less than 30. Of these, only one, the Holarctic *Sisicus* Bishop et Crosby, 1938, seems to have a convector in the embolic division of the male palp (see Hormiga [2000, fig. 26], Dupérré & Paquin [2007], in both papers termed as a lamella characteristic). However, I refrain from placing the new species in the genus *Sisicus*, since the latter has an extremely peculiar structure of all elements of the palp: a paracymbium with a reduced distal part; distal suprategular apophysis without pit-hook; a coiled embolus with a complex radix.

**SPECIES INCLUDED.** Only the type species.

**DISTRIBUTION.** Known only from the Khabarovsk Province, Russia.

***Bureyanus hastatus* sp.n.**

Figs 1–8.

**HOLOTYPE** ♂ (ZMMU), RUSSIA, Khabarovsk Province, Verkhnebureinsky District, Bureinsky Nature Reserve, near confluence of Pravaya and Levaya Bureya rivers, Cordon Strelka, mixed coniferous forest, in moss and litter, VI.2003, leg. A. Tanasevitch.

**NAME.** The specific epithet “*hastatus*” is a Latin adjective, derived from the Latin “*hasta*” (a spear), meaning the presence of spear-shaped processes on the convector in the male palp.

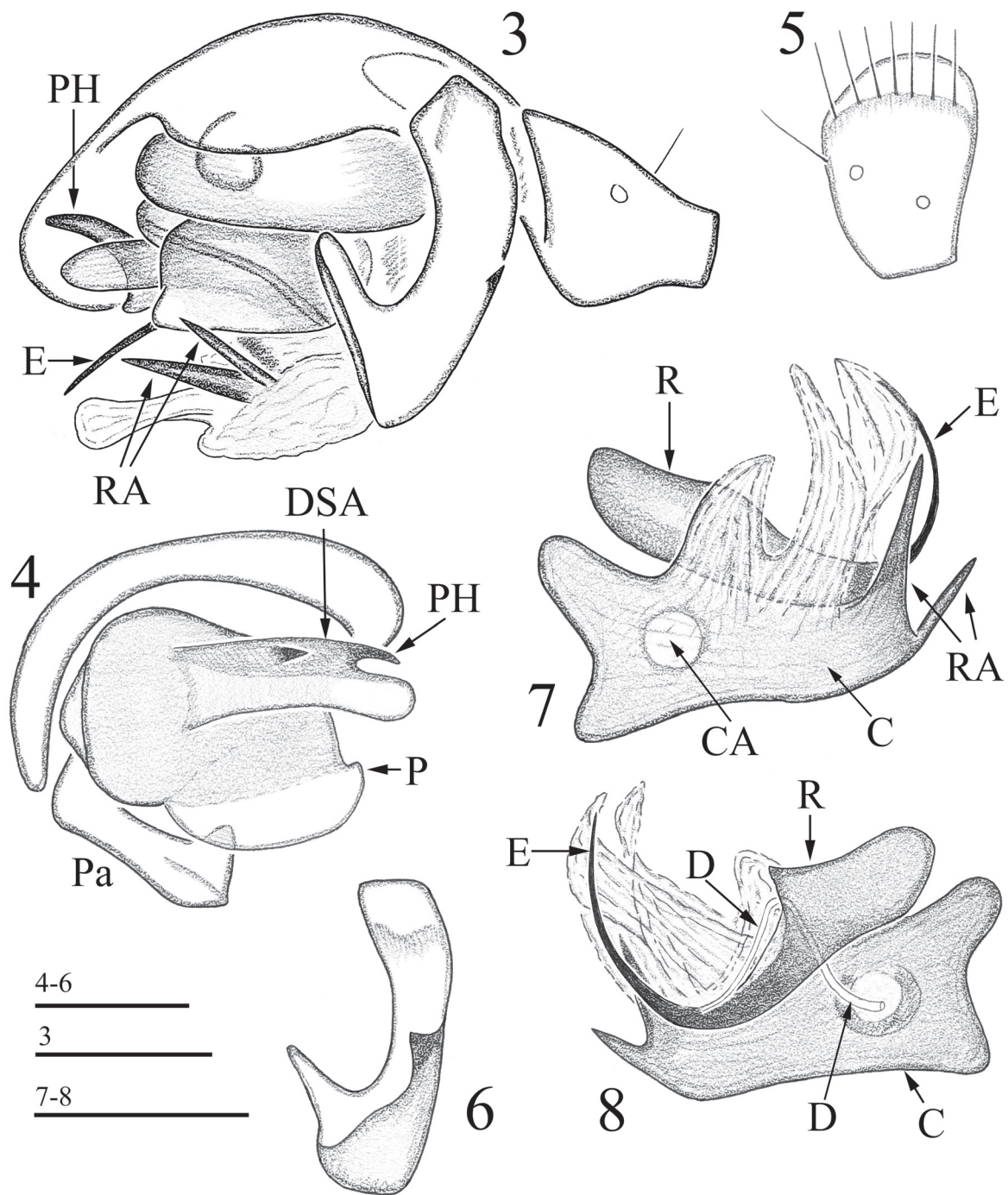
**DIAGNOSIS.** The genus so far contains a pale, medium-sized erigonine with a total length of about 1.7, characterized by the following combination of somatic and genital characters:

- 1) Carapace unmodified, eyes of normal size, cephalic pits (= sulci) absent (Figs 1, 2).
- 2) Chelicerae unmodified, a mastidion absent.
- 3) Leg chaetotaxy formula: 2.2.2.2, no prolateral spine on tibiae I–II; metatarsi I–III each with a trichobothrium; TmI about 0.44.
- 4) Palpal tibia short, unmodified, any outgrowths or processes missing (Figs 3, 5).
- 5) Paracymbium simple, hook-shaped, with a small lateral tooth (Figs 3, 6).
- 6) Distal suprategular apophysis “micronetine-like” (Fig. 4).
- 7) Embolic division with a large and complex convector. Embolus relatively long, radix well-developed (Figs 7, 8).
- 8) Abdomen without distinct pattern (Fig. 1).

**DESCRIPTION.** See description of the type species.

**TAXONOMIC REMARKS.** The palp conformation of the new genus resembles that of *Oedothorax* Bertkau, 1883, whose members are also characterized by the presence of a convector and a similarly simple embolus. The new genus differs from *Oedothorax* by an unmodified palpal tibia, a “micronetine-like” shape of the distal suprategular apophysis, the leg dorsal spine formula being 2.2.2.2 (vs 2.2.1.1), as well as the absence of a trichobothrium on metatarsi IV.

The shape of the distal suprategular apophysis, namely, the presence of a pit-hook, resembles that of many micronetid spiders (see Saaristo & Tanasevitch [1996]). The pit-hook in micronetines is an important structure which takes part in the copulation process: for details see Helsdingen



Figs 3–8. Details of male palpal structure of *Bureyanus hastatus* sp.n., holotype. 3 — right palp, retrolateral view; 4 — right palp prolateral view, embolic division removed; 5 — palpal tibia, dorsal view; 6 — paracymbium; 7, 8 — embolic division, ventro-retrolateral and mesal views, respectively.

Рис. 3–8. Детали строения пальпы самца *Bureyanus hastatus* sp.n., голотип. 3 — правая пальпа, ретролатерально; 4 — правая пальпа, пролатерально, эмболюсный отдел удалён; 5 — голень пальпы сверху; 6 — парацимбиум; 7, 8 — эмболюсный отдел соответственно снизу и сзади, и изнутри.

**DESCRIPTION.** Male holotype. Total length 1.70. Carapace unmodified, 0.85 long, 0.68 wide, pale yellow, as in Figs 1, 2. Chelicerae unmodified, same colour as carapace, 0.38 long, promargin of each with three large teeth, retro-

margin with one or two small teeth (Fig. 2). Legs pale yellow. Leg I, 2.48 long (0.70 + 0.20 + 0.60 + 0.53 + 0.45), IV, 2.73 long (0.75 + 0.23 + 0.70 + 0.60 + 0.45). Chaetotaxy 2.2.2.2, prolateral spine(s) on tibiae absent. Spines 1.5–2.5



as long as diameter of corresponding leg segment. TmI, 0.44. Metatarsus IV without trichobothrium. Palp (Figs 3–8): Tibia with a row of weak spines distally. Cymbium unmodified. Paracymbium relatively large and narrow, hook-shaped, with a dark tooth at its posterior edge. Distal supratregular apophysis bifid, upper branch narrow, slightly curved, low branch wide, rounded, almost transparent. A short and thick tooth present in the middle of distal supratregular apophysis. Low part of tegulum pale, almost transparent, a small protegulum present. Embolic division with a large and complex convector. The latter flat, slightly concave, its anterior part with two spear-shaped processes, proximal part with two rounded extensions. Body of convector with a large and almost transparent membrane complex in shape. Place of column attachment well-visible in convector as a large rounded foramen. Embolus relatively long, slightly curved, radix well-developed, elongated. Abdomen (Fig. 1) 0.95 long, 0.55 wide, pale, with grey tint.

Female unknown.

**TAXONOMIC REMARKS.** See above under the description of the genus.

**DISTRIBUTION.** Known only from the type locality, Khabarovsk Province, Russia.

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