

## The first description of the male of *Oreonetides beringianus* Eskov, 1991 (Aranei: Linyphiidae) from the Russian Arctic

### Первоописание самца *Oreonetides beringianus* Eskov, 1991 (Aranei: Linyphiidae) из Российской Арктики

Andrei V. Tanasevitch

А.В. Танасевич

A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospekt 33, Moscow 119071, Russia.  
E-mail: tanasevitch@gmail.com

Институт проблем экологии и эволюции им. А.Н. Северцова РАН, Ленинский проспект 33, Москва 119071, Россия.

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КЛЮЧЕВЫЕ СЛОВА: таксономия, Micronetinae, пауки-пигмеи, распространение, Азия.

**ABSTRACT.** A formerly unknown male of *Oreonetides beringianus* Eskov, 1991 is described for the first time from the typical tundra of Yamal Peninsula, Russia. The corresponding female is re-described and recorded from Yamal Peninsula for the first time. The genitalic structures of both sexes are illustrated, and the taxonomic position of the species is briefly discussed.

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**РЕЗЮМЕ.** Неизвестный ранее самец *Oreonetides beringianus* Eskov, 1991 описан из типичных тундр п-ова Ямал. Самка данного вида переописана и впервые зарегистрирована для Ямала. Гениталии обоих полов детально иллюстрированы, кратко обосновано таксономическое положение вида.

### Introduction

The Holarctic genus *Oreonetides* Strand, 1901 has been described in detail by Saaristo [1972], van Helsdingen [1981] and Eskov [1984]. At present, the genus includes 17 species [Word Spider Catalog, 2022], with the bulk in Siberia and the Nearctic.

*Oreonetides beringianus* Eskov, 1991 has been described based on the female sex alone, from both the Magadan Area and the Chukotka Autonomous Region, Russia [Eskov, 1991]. No further records have been published since.

In 2007, a single male of *Oreonetides* sp., similar in habitus to *O. beringianus* females (the same pale and small-sized), was collected in the middle part of Yamal Peninsula [Tanasevitch *et al.*, 2009]. A few years later, a female of *O. beringianus* was found at a neighbour-

ing locality of that peninsula (unpublished material). This suggested that the male which had been found earlier was a yet undescribed male of *O. beringianus*. Both localities in the middle of Yamal Peninsula support the subzone of typical tundra [CAVM Team, 2003] and correspond to intrazonal plant communities (for details, see Tanasevitch *et al.* [2009], Tanasevitch & Rybalov [2015]).

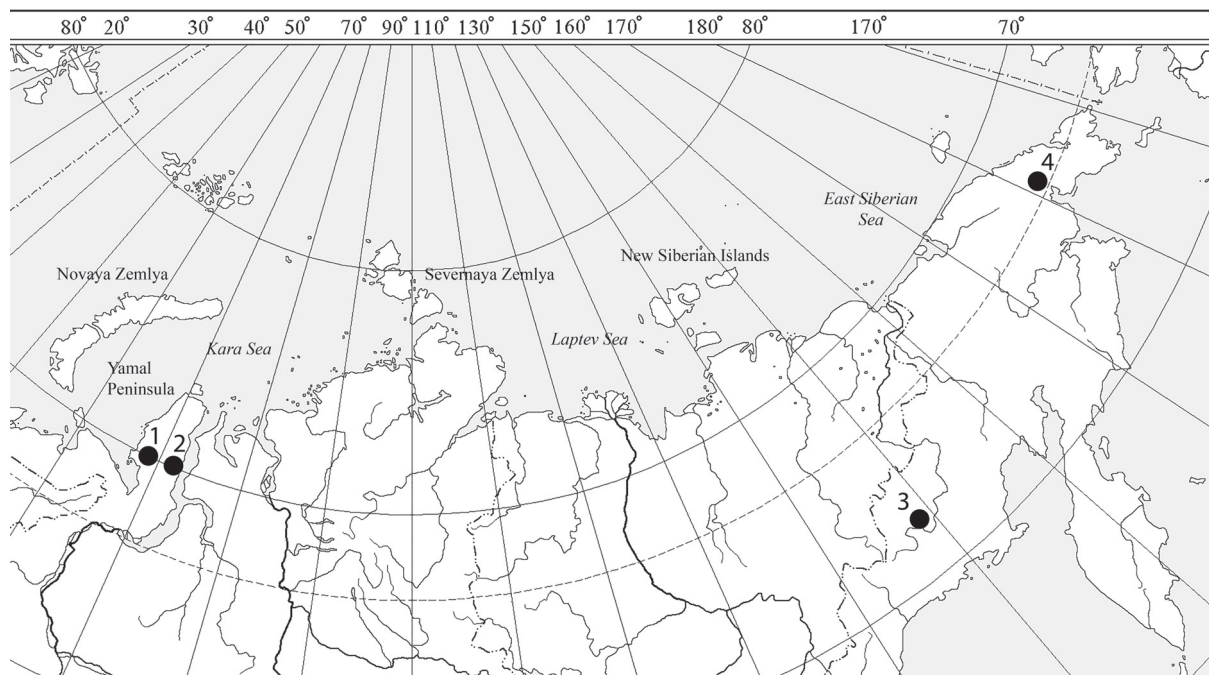
The first description of the male of *O. beringianus*, as well as new illustrations of the genitalia of both sexes of that species are the subject of the present paper.

### Material and methods

This paper is based on material deposited in the Zoological Museum of the Moscow State University, Moscow, Russia (ZMMU). Specimens were preserved in 70% ethanol and studied using an MBS-9 stereo microscope. Drawings were executed with a drawing tube.

Leg chaetotaxy is presented in a formula: 2.2.2.1, which refers to the number of dorsal spines on tibiae I–IV. The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are given in mm. Scale lines in the figures correspond to 0.1 mm. The terminology of copulatory organs mainly follows that of Merrett [1963] with later modifications referred to just below.

The following abbreviations were used in the text and figures: BC — bursa copulatrix after Saaristo [1973]; D — duct; DSA — distal suprategular apophysis; E — embolus; ED — entrance duct; EP — embolus proper after Saaristo [1971]; LC — lamella characteristica after Kulczyński [1898]; LE1 & LE2 — lateral extensions of embolus; LL — lateral lobes of distal part of scapus after Helsdingen [1965]; NS — needle-shaped darkened strip; R — radix; Re — receptacle; S — stretcher; TA — terminal apophysis after Merrett [1963]; TmI — relative position of trichobothrium on the metatarsus of leg I.



Map. Distribution records of *Oreonetides beringianus* Eskov, 1991. 1 — Bovanenkovo; 2 — Sabetta; 3 — Vakhanka (the type locality); 4 — 118 road-km from Egvekinot to Iultin.

Карта. Находки *Oreonetides beringianus* Eskov, 1991. 1 — Бованенково; 2 — Сабетта; 3 — Вакханка (типовое местообитание); 4 — 118 км трассы Эгвекинот–Иультин.

## Taxonomy

Order Aranei Clerck, 1758  
Family Linyphiidae Blackwall, 1859  
Subfamily Micronetinae Hull, 1920  
Genus *Oreonetides* Strand, 1901

*Oreonetides beringianus* Eskov, 1991  
Map, Figs 1–9.

1991 *Oreonetides beringianus* Eskov: 48, figs 4–6, ♀.

2009 *Oreonetides* sp. — Tanasevitch *et al.*: 187.

2017 *O. beringianus* — Tanasevitch: 596, fig. 11 (reproduced),

♀.

TYPE MATERIAL EXAMINED. *Oreonetides beringianus*: ♀ holotype (ZMMU, Ta-5404), RUSSIA, Magadan Area, 56 km up-stream Detrin River mouth (right tributary of Kolyma River), Vakhanka brook, 61°20'N 149°30'E (No.3 on Map), *Populus-Chosenia* inundated forest, 13.VIII.1984, leg. K. Eskov; ♀ paratype (ZMMU, Ta-5408), same locality, 9.VII.1985, leg. Yu. Marusik; 3 ♀♀, paratypes (ZMMU), same locality, 20.VI.1986, leg. Yu. Marusik; ♀ paratype (ZMMU, Ta 5409), Chukotka Autonomous Region, 118 road-km from Egvekinot to Iultin, 67°18'N 178°30'W (No.4 on Map), hill, 18.VI.1989, leg. Yu. Marusik.

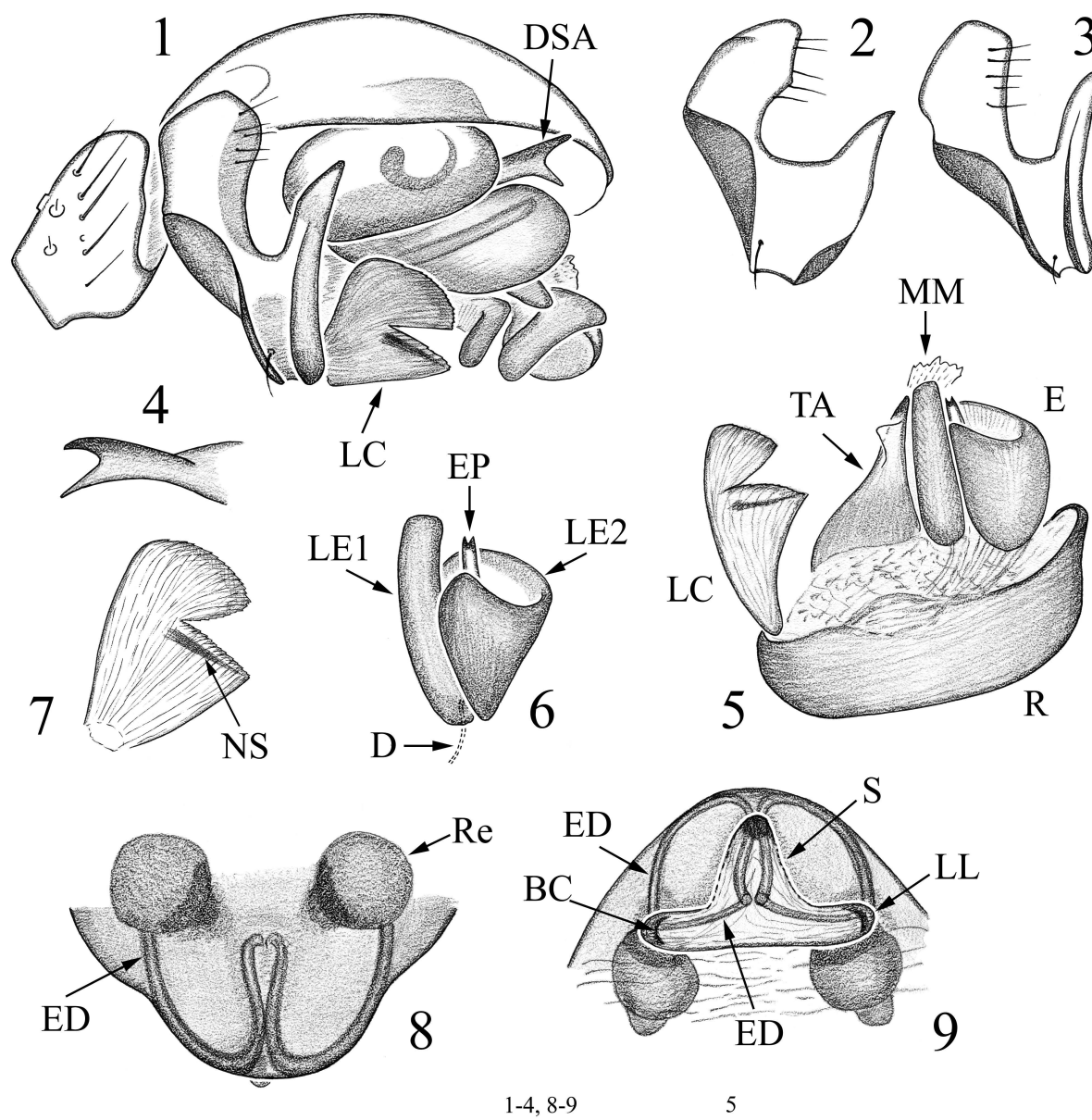
NEW MATERIAL EXAMINED. 1 ♂ (ZMMU), RUSSIA, Tyumen Area, Yamal-Nenets Autonomous Region, middle part of Yamal Peninsula, 20 km S of Bovanenkovo gas field, 70.12°N 68.3216°E (No.1 on Map), lichen-moss-sedge tundra on gentle slope, 20 m a.s.l., pitfall traps, 9–24.VII.2005, leg. E. Kaarlejärvi; 1 ♀ (ZMMU), middle part of Yamal Peninsula, environs of Sabetta (No.2 on Map), 25–27.VII.2015, leg. L. Rybalov, A. Bastrakov.

DESCRIPTION. Male from Bovanenkovo gas field. Total length 1.70. Carapace unmodified, 0.80 long, 0.60 wide, yellow to pale brown. Chelicerae 0.28 long. Legs yellow. Leg I, 1.20 long (0.50 + 0.18 + 0.40 + 0.38 + 0.33), IV, 2.08

long (0.53 + 0.20 + 0.55 + 0.45 + 0.35). Chaetotaxy: 2.2.2.1. Length of spines about 1–1.5 diameter of segment. Lateral spines on tibiae I and II absent. Femora and metatarsi unarmed. TmI 0.44. Metatarsi I–III each with a trichobothrium. Palp (Figs 1–7): Cymbium without posterodorsal outgrowth. Tibia short, unmodified. Paracymbium U-shaped, with a large posterior pocket forming a ridge. Distal supratregular apophysis bifid. Radix boat-shaped. Fickert's gland absent. Lamella characteristica divided into two branches; lower branch with a narrow and needle-shaped darkened strip (NS in Fig. 7). Terminal apophysis relatively large, conical. Embolus cup-shaped, with two lateral extensions: one long and narrow (LE1 in Fig. 6) and the other very wide, enveloping a bifid embolus proper (LE2 in Fig. 6). Abdomen 1.00 long, 0.70 wide, white. Stridulation furrows on lung covers well-developed.

Female from Sabetta. Total length 1.90. Carapace unmodified, 0.75 long, 0.60 wide, yellow to pale brown. Chelicerae 0.33 long. Legs yellow. Leg I, 1.83 long (0.50 + 0.20 + 0.40 + 0.40 + 0.33), IV, 2.11 long (0.60 + 0.20 + 0.50 + 0.48 + 0.33). Chaetotaxy: 2.2.2.1. Length of spines about 1–1.5 diameter of segment. Lateral spine on tibiae I and II absent. Femora and metatarsi unarmed. TmI 0.41. Metatarsi I–III each with a trichobothrium. Abdomen 1.25 long, 0.95 wide, white. Stridulation furrows on lung covers presence, but poorly-expressed. Epigyne (Figs 8, 9) slightly protruding, entrance ducts relatively wide, well visible through integument. Distal part of scape poorly-sclerotized, membranous. Lateral lobes well-developed, forming a narrow transverse stripe. Stretcher well-protruded, wide at base, narrowing distad, with a large pit. Posterior median plate absent. Receptacles subspherical.

VARIABILITY. Seminal ducts in the female from Yamal seem to be slightly more slender than in some syntypes.



Figs 1–9. Details of male palpal structure (1–7) and female epigyne (8, 9) of *Oreonetides beringianus* Eskov, 1991, specimens from Yamal Peninsula. 1 — right palp, retrolateral view; 2, 3 — paracymbium, different aspects; 4 — distal suprategular apophysis; 5 — embolic division; 6 — embolus; 7 — lamella characteristica; 8, 9 — epigyne, ventral and dorsal views, respectively.

Рис. 1–9. Детали строения пальпы самца (1–7) и эпигины самки (8, 9) *Oreonetides beringianus* Eskov, 1991, экземпляры с п-ова Ямал. 1 — правая пальпа, ретролатерально; 2, 3 — парацимбиум, различные аспекты; 4 — дистальная апофиза супратегулюма; 5 — эмболюсный отдел; 6 — эмболюс; 7 — lamella characteristica; 8, 9 — эпигина, соответственно снизу и сверху.

**TAXONOMIC REMARKS.** Based on the structure of the genitalia in both sexes, *Oreonetides beringianus* is very similar to the Far Eastern *O. minimus* Tanasevitch, 2017, the latter species described from the southern part of Maritime Province (= Primorsky Krai), Russia. The differences between both species are as follows:

1. *Oreonetides beringianus* is considerably large (1.70–2.00, vs 1.08–1.30).

2. Lamella characteristica in *O. beringianus* with a narrow and needle-shaped darkened strip in its lower part.

3. Shape of terminal apophysis in *O. beringianus* conical, vs slightly curved, elongated parallelepiped.

4. Lateral extension (LE1 in Fig. 6) in *O. beringianus* almost straight, vs curved (LE1 in Fig. 6 cf. fig. 6 in Tanasevitch [2017]).

5. Seminal ducts in *O. beringianus* much thicker. NB: the seminal (= entrance) ducts in the description of *O. minimus* [Tanasevitch, 2017] were erroneously termed as fertilisation ducts.

6. Stretcher in *O. beringianus* well-protruded, wide at base, tapering distad, vs short, wide and abruptly truncate.

**DISTRIBUTION.** *Oreonetides beringianus* is known from the Magadan Area and the Chukotka Autonomous Region [Eskov, 1991], as well as the Yamal Peninsula,



Yamal-Nenets Autonomous Region, Russia. There is little doubt that *O. beringianus* will be found in many places of the Arctic and Hypoarctic belts of Siberia and the Far East between Yamal Peninsula and Chukotka (see Map).

RANGE. Siberian hypoarctic-arctic.

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