

## On synonymy of linyphiid spiders of the Russian fauna (Arachnida: Aranei: Linyphiidae). 2

### О синонимии пауков-линифиид фауны России (Arachnida: Araneae: Linyphiidae). 2

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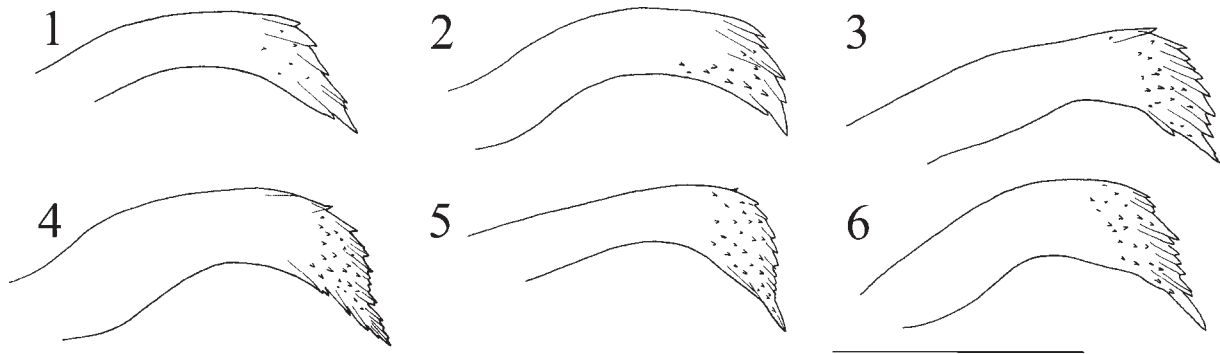
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KEY WORDS: Spiders, Linyphiidae, new synonymy, Russia.

КЛЮЧЕВЫЕ СЛОВА: Пауки, Linyphiidae, новая синонимия, Россия.

**ABSTRACT.** Five new synonyms are established for the Russian fauna of Linyphiidae: *Agynera bialata* (Tao, Li et Zhu, 1995), syn.n. = *A. birulai* (Kulczyński, 1908); *Agynera parasaxatilis* Marusik, Hippa et Koponen, 1996, syn.n. = *A. pseudosaxatilis* Tanasevitch, 1984; *Diplocephalus cristatus angusticeps* Holm, 1973, syn.n. = *D. c. cristatus* (Blackwall, 1833); *Minyrioloides trifrons affinis* (Schenkel, 1930), syn.n. = *M. trifrons* (O. Pickard-Cambridge, 1863); *Lepthyphantes tes* Marusik, Hippa et Koponen, 1996, syn.n. = *Oryphantes geminus* (Tanasevitch, 1982). The synonymy of *Bathyphantes biscalpus* Kulczyński, 1926 with *B. humilis* (L. Koch, 1879), *B. simillimus* (L. Koch, 1879) with *B. eumenis* (L. Koch, 1879) and *B. insulanus* Holm, 1960 with *B. pogonias* Kulczyński, 1885, are confirmed. The earlier synonymy of *B. biscalpus* and *B. keeni* (Emerton, 1917), as well as of *B. castor* Chamberlin, 1925 and *B. pogonias* Kulczyński 1885, are rejected. The female of *B. jeniseicus* Eskov, 1979 is shown to be that of *B. eumenis*. The female of *B. jeniseicus* and the male of *B. humilis* are described for the first time. All the records of *B. iviei* Holm, 1970 and *B. keeni* from Russia are based on misidentifications; thus both species are to be excluded from the Russian and Palearctic faunas. Numerous previous misidentifications of many species are corrected. *Caviphantes pseudosaxetorum* Wunderlich, 1979 is recorded from the Russian fauna for the first time; *Gongylidiellum orduense* Wunderlich, 1995, *Mecynargus foveatus* (Dahl, 1912), *Russocampus polchaninovae* Tanasevitch, 2004 and *Silometopus incurvatus* (O. Pickard-Cambridge, 1873) are added to the Caucasian fauna; on the contrary, *G. murcidum* Simon, 1884 are to be excluded from the Caucasian fauna. The record of *Minyrioloides trifrons* (O. Pickard-Cambridge, 1863) from the Tien-Shang Mts actually refers to *M. maritimum* Crocker et Parker, 1970; the latter species early known as W-European is hence a new record to Central Asia.

**РЕЗЮМЕ.** В фауне пауков-линифиид России установлено пять новых синонимов: *Agynera bialata* (ТАО, Ли и Чжу, 1995), syn.n. = *A. birulai* (Кульчицкий, 1908); *Agynera parasaxatilis* Марусик, Хиппа и Копонен, 1996, syn.n. = *A. pseudosaxatilis* Танасевич, 1984; *Diplocephalus cristatus angusticeps* Холм, 1973, syn.n. = *D. c. cristatus* (Блэквелл, 1833); *Minyrioloides trifrons affinis* (Шенкел, 1930), syn.n. = *M. trifrons* (О. Пиккард-Кембридж, 1863); *Lepthyphantes tes* Марусик, Хиппа и Копонен, 1996, syn.n. = *Oryphantes geminus* (Танасевич, 1982). Подтверждена синонимия *Bathyphantes biscalpus* Кульчицкий, 1926 и *B. humilis* (Л. Кох, 1879), *B. simillimus* (Л. Кох, 1879) и *B. eumenis* (Л. Кох, 1879), а также *B. insulanus* Холм, 1960 и *B. pogonias* Кульчицкий, 1885. Напротив, синонимия *B. biscalpus* и *B. keeni* (Эмертон, 1917), а также *B. castor* Chamberlin, 1925 и *B. pogonias* Кульчицкий, 1885, отвергнута. *B. jeniseicus* Eskov, 1979 = *B. eumenis* (только самка!). Приведено описание ранее неизвестной самки *B. jeniseicus* и самца *B. humilis*. Все находки *B. iviei* Холм, 1970 и *B. keeni* в России основаны на неправильных определениях, поэтому эти виды выведены из состава фауны России и Палеарктики в целом. Исправлены многие ошибочные определения ряда видов. *Caviphantes pseudosaxetorum* Wunderlich, 1979 впервые отмечен в фауне России; *Gongylidiellum orduense* Wunderlich, 1995, *Mecynargus foveatus* (Даль, 1912), *Russocampus polchaninovae* Танасевич, 2004 и *Silometopus incurvatus* (О. Пиккард-Кембридж, 1873) впервые приведены для фауны Кавказа, напротив, *G. murcidum* Simon, 1884 выведен из ее состава. Находка *Minyrioloides trifrons* (О. Пиккард-Кембридж, 1863) на Тянь-Шане ошибочна и в действительности относится к *M. maritimum* Crocker et Parker, 1970, известному ранее лишь из Западной Европы.



Figs 1–6. Lamella characteristic of *Agyneta birulai* (Kulczyński, 1908): 1, 2 — specimens from Plateau Putorana, Lake Ayan; 3 — specimen from Wrangel Island; 4, 5 — specimens from Magadan Area, Kolyma Upland; 6 — specimen from Chita Area, Sokhondinskiy N.R.

Рис. 1–6. Lamella characteristic *Agyneta birulai* (Kulczyński, 1908): 1, 2 — экземпляры с плато Путорана, оз. Аян; 3 — экземпляр с о-ва Врангель; 4, 5 — экземпляры из Магаданской обл., Колымское нагорье; 6 — экземпляр из Читинской обл., Сохондинский заповедник.

## Introduction

This paper constitutes the second in a series of the contributions reassessing the validity and status of certain linyphiid species from the Russian fauna [see Tanasevitch, 2010].

This paper is mainly based both on the spider collections retained at the Zoological Museum of the Moscow State University, Moscow, Russia (ZMMU), and on the personal collection of the author (CAT). Some types and comparative material have been obtained from the Institute for Biological Problems of the North, Magadan, Russia, (IBPN); Manchester Museum, University of Manchester (MMUM); Museum d'histoire naturelle, Geneva, Switzerland (MHNG); Naturhistoriska Riksmuseet, Stockholm (NHRM); Senckenberg Museum, Frankfurt am Main, Germany (SMF); Zoological Museum of the Institute of Zoology, Warsaw, Poland (MIZ).

The terminology of genitalic structures follows that of Merrett [1963] and Hormiga [2000]. The term “lamella” designating an additional sclerite in the embolic division [Merrett, 1963] is used in quotation marks, as its applicability to and homology between different taxa remain ambiguous. For the members of *Bathypantes* Menge, 1866, the term “scapus” is also used in quotation marks, as this more or less protruded process of the anterior wall of the epigyne is not homologous to the scapus (= scape) defined and applied for the Micronetinae [see Saaristo & Tanasevitch, 1996]. Complete reference lists to all studied species are available in Platnick [2011].

Abbreviation used in the text and figures: C — cymbium; E — embolus; L — “lamella”; N.R. — Nature Reserve; P — paracymbium; Pa — parmula; PMP — posterior median plate; R — radix, S — “scapus”. All scale bars in the figures correspond to 0.1 mm.

## Results

### *Agyneta birulai* (Kulczyński, 1908)

Figs 1–6.

1908 *Micryphantes birulai* Kulczyński: 37, pl. 1, figs 28–31, 36, 37, 39, 40, ♂ & ♀.

1995 *Meioneta bialata* Tao, Li et Zhu: 250, figs 158–168, ♂ & ♀, not examined, **syn.n.**

MATERIAL EXAMINED. *Agyneta birulai*: 2 ♂♂, 1 ♀ (ZMMU), RUSSIA, Wrangel Island, Cape Ptichiy Basar, stony slope, 27.VI.1984, leg. O. Khrulyova; 2 ♂♂, 2 ♀♀ (ZMMU), Chukotka, 174 km of Egvekinot – Iultin main road, 28.VI.1989, leg. Y. Marusik; 2 ♂♂, 4 ♀♀ (ZMMU), Chaun Bay, upper reaches of Anguema River, 67°50'N, 177°40'E, 15.VII.1989, leg. Y. Marusik; ca 60 ♂♂ & ♀♀ (ZMMU), Magadan Area, upper reaches of Kolyma River, environs of Sibit-Tyellakh, 950–1300 m a.s.l., 1984–1989, leg. I. Grishkan, K. Eskov, Y. Marusik; 4 ♂♂, 4 ♀♀ (ZMMU), same, 16.IX.1984, leg. Y. Marusik; 2 ♂♂, 4 ♀♀ (ZMMU), same, 11.VIII.1984, leg. K. Eskov; 2 ♂♂, 1 ♀ (ZMMU), same, 1300 m a.s.l., leg. K. Eskov; 2 ♂♂, 2 ♀♀ (CAT), Khabarovsk Area, Bureinskiy N.R., 23.VII.2005, leg. L. Trilikauskas (**new locality**); 1 ♂, 1 ♀ (ZMMU), Chita Area, Sokhondinskiy N.R., leg. D. Logunov; 1 ♂, 1 ♀ (ZMMU), Taimyr Autonomous Region, Putorana Plateau, Lake Ayan, Ayan River source, 26.VI.1983, leg. K. Eskov; 1 ♀ (CAT), Yamalo-Nenets Autonomous Region, Polar Ural Mts, Ray-Iz Mts, Sob' River Valley, stony debris in forest-tundra belt, 10.VII.1982, leg. A. Tanasevitch.

REMARKS. *Agyneta bialata* was described from both sexes from Changbai Mts (2170 m a.s.l.), Jilin Province, China [Tao et al., 1995, as *Meioneta* Hull, 1920]. The detailed original drawings of the copulatory organs of *A. bialata* leave no doubts that this species name is to be treated as a junior synonym of *A. birulai* (**syn.n.**).

VARIABILITY. The species varies considerably in body size and coloration, but structures of its copulatory organs are rather stable; only minor differences can be observed in the shape of the lamella characteristic (Figs 1–6).

DISTRIBUTION. East Palaearctic–West Nearctic.

*Agyneta pseudosaxatilis* Tanasevitch, 1984

1984 *Agyneta pseudosaxatilis* Tanasevitch: 47, fig. 1 (a–ж), ♂ & ♀, examined.

1996 *A. parasaxatilis* Marusik, Hippa et Koponen: 13, figs 1–3, ♂ & ♀, examined, **syn.n.**

TYPE MATERIAL. *Agyneta parasaxatilis*: ♂ holotype (ZMT), USSR, SW Altai, Bertkem, N slope, 2000 m a.s.l., 9–13.VII.1983, leg. H. Hippa. Paratypes: 1 ♂ (ZMMU, TA 7415), same locality and date, leg. H. Hippa; 1 ♀ (ZMT), USSR, SW Altai, Bertkem, 10 km S of Katanda, forest edge, moss & lichen, 10.VII.1983, leg. H. Hippa.

OTHER MATERIAL EXAMINED. *Agyneta pseudosaxatilis*: 2 ♂♂, 8 ♀♀ (ZMMU), USSR, Magadan Area, Kolyma Upland, upper reaches of Kolyma River, 10 km upstream of Vetrennyi, 5.VIII.1984, leg. K. Eskov; 1 ♂ (ZMMU), near Vetrennyi, 5.VII.1987, leg. Y. Marusik; 1 ♂, 3 ♀♀ (ZMMU), environs of Sibit-Tyellakh, Aborigine Field Station, 3.IV.1984, leg. K. Eskov; 1 ♀ (ZMMU), near Lake Jack London, 26.VIII.1984, leg. K. Eskov & Y. Marusik; 1 ♀ (ZMMU), Khabarovsk Area, Okhotskiy District, Gyrybkan River (Ul'ya River basin), 20.VIII–15.IX.1986, leg. I. Sukacheva; 18 ♂♂, 27 ♀♀ (ZMMU), Verkhnebureinskiy District, Bureinskiy N.R., environs of Cordon Strelka, summer 2002–2006, leg. L. Trilikauskas, A. Ryvkin, A. Tanasevitch; 1 ♂, 1 ♀ (CAT), Komsomolskiy District, Komsomolskiy N.R., Goryun River mouth, *Larix* forest with *Pinus pumila*, in moss, VII.1997, leg. G. Gonyaev (**new locality**); 3 ♂♂, 5 ♀♀ (ZMMU), Taimyr Autonomous Region, Putorana Plateau, Lake Ayan, Kapchyug River flow, 12.VI.1983, leg. K. Eskov; 1 ♂, 6 ♀♀ (ZMMU), same, Ayan River source, 29.VI.1983, leg. K. Eskov; 1 ♂, 4 ♀♀ (ZMMU), same, Amundakta River mouth, 12.VIII.1983, leg. K. Eskov; 3 ♂♂, 5 ♀♀ (ZMMU), Evenkia, Taymura River flow, Chambe River mouth, 19–20.VIII.1982, leg. K. Eskov; 1 ♀ (ZMMU), KAZAKHSTAN, East-Kazakhstan Area, Saur Mt. Ridge, Pass Saykan, 1880 m a.s.l., 27.VI.1990, leg. K. Eskov.

REMARKS. The palpal tibia, lamella characteristic and epigyne, as depicted by Marusik et al. [1996, figs 1–3] for *A. parasaxatilis*, actually represent the extreme situations in the variation range observed in *A. pseudosaxatilis*. The (re)examined material has revealed that the majority of males of *A. pseudosaxatilis* throughout Siberia show the shapes of the lamella characteristic intermediate between the conformation referred to by Marusik et al. [1996] for *A. parasaxatilis* [op. cit., fig. 2] and that of *A. pseudosaxatilis* [op. cit., fig. 5]. The extreme conformations (“*A. parasaxatilis*”) of the palpal tibia, lamella characteristic and epigyne [op. cit., figs 1, 2, 3, respectively] can be found not only in the Altai Mts, the *terra typica* of *A. parasaxatilis*, but also in other parts of the species' range: e.g., the same epigyne has been observed in some females from Magadan Area and Plateau Putorana, and the similarly pointed lamella characteristic has been found in some males from the basin of Bureya River and Plateau Putorana. The shape of the palpal tibia of *A. pseudosaxatilis* is rather complex and variable, thereby even a slightly different aspect results in its considerably different outline. Thus, it is safe to conclude that the name *A. parasaxatilis* is to be considered a junior synonym of *A. pseudosaxatilis*.

DISTRIBUTION. Siberian.

*Bathyphantes eumenis* (L. Koch, 1879)

Figs 7–13.

1916 *Bathyphantes humilis*. — Kulczyński: 17, pl. 1, figs 24, 25, ♀, misidentification.

1967 *B. humilis*. — Buchar: 83, fig. 2 (B, C), ♀, misidentification.

1979 *B. jeniseicus* Eskov: 65, ♀ only (!), figs 15, 16, misidentification, examined.

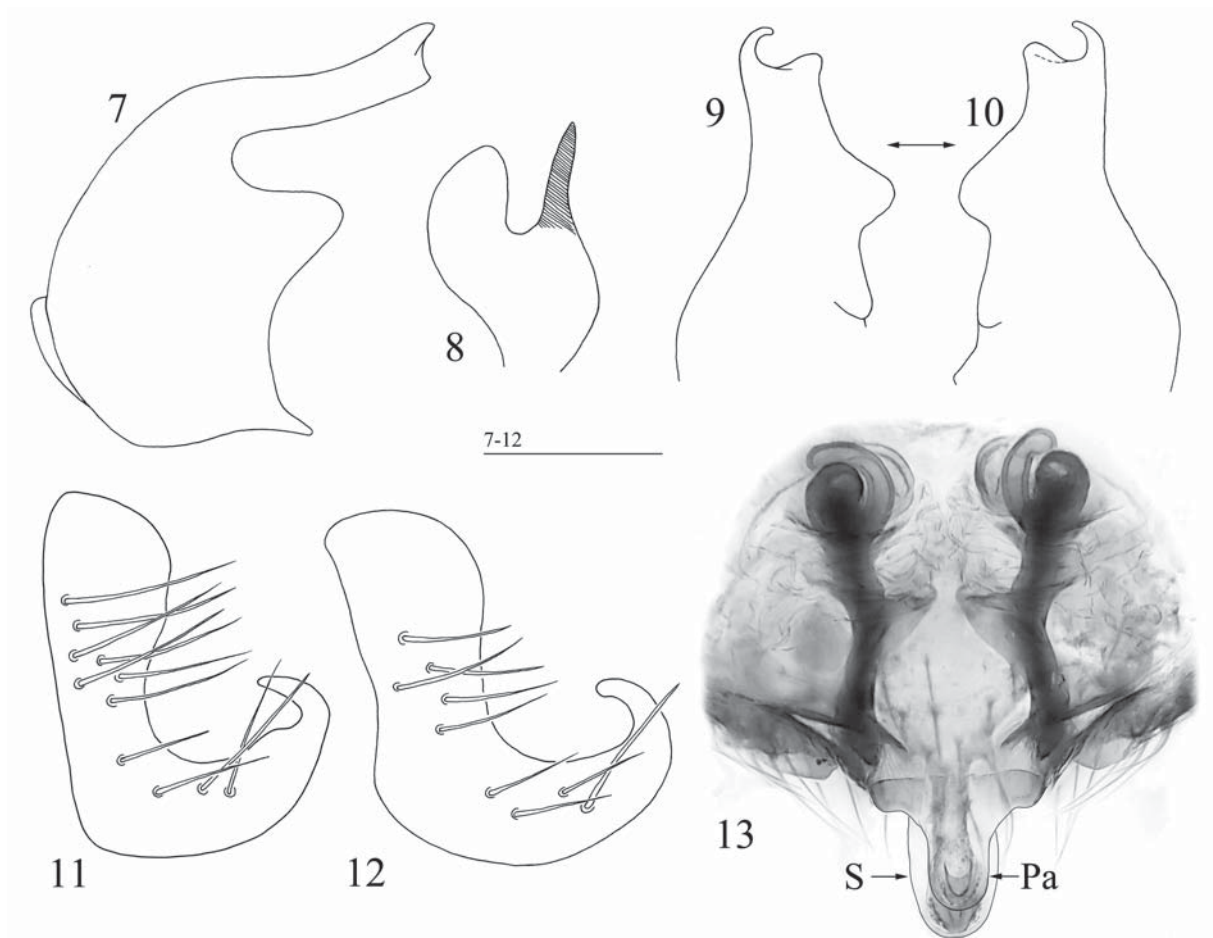
1988 *B. jeniseicus*. — Růžička: 152, fig. 2 (B, C), ♀, misidentification.

REMARKS. The history of the synonymy of *B. eumenis* has been long, confused, and repeatedly discussed. It is worth mentioning though that Woźny & Czajka [1985] were absolutely correct in synonymizing *B. eumenis* and *B. simillimus* (L. Koch, 1879). However, this synonymy was soon rejected by Eskov [1988], largely on the basis of imaginary differences in the abdominal coloration and the chaetotaxy (the type material was not studied). The latter author argued that, compared to *B. simillimus*, *B. eumenis* would possess a well-expressed dorsal abdominal pattern and ventral spines on leg tibiae I–II. Later, abundant material from various places across Eurasia has been amassed, revealing that the aforementioned differences in body coloration and chaetotaxy are nothing but a variability, most likely at a population level because both coloration types are seldom to have co-existed. This conclusion is based on the study undertaken by Yuri Marusik (IBPN) and myself in 2006, in which the copulatory organs of several hundred specimens identified either as *B. eumenis* or as *B. simillimus* were examined using both SEM and light microscopy. No result of this collaborative project has yet been published, but it is safe to conclude that there is a single species: *B. eumenis* by priority. In addition to *B. simillimus*, *B. eumenis* was shown to be a senior synonym of *B. emertoni* Roewer, 1942, *B. eumenoides* Holm, 1967 and *B. haniensis* Zhu, Wen et Sun, 1986 [see Woźny & Czajka, 1985; Eskov, 1988, 1992, 1994; Marusik et al., 1993a,b; Buckle et al., 2001; Platnick, 2011].

The drawings of *B. humilis* provided by Kulczyński [1916, pl. 1, figs 24, 25, ♀] and by Buchar [1967, fig. 2 (B, C), ♀], as well as those of *B. jeniseicus* by Eskov [1979, figs 15, 16] and by Růžička [1988, fig. 2 (B, C), ♀], actually refer to *B. eumenis*.

Since the male of *B. eumenis* is very similar to those of some other *Bathyphantes* species (see below), a series of illustrations of their palps is here provided for their safe discrimination (Figs 7–12, cf. Figs 14–29, 35–39, 45–54, 57–67).

VARIABILITY. Abdomen may be one-coloured from pale to dark grey, but also may be with a dorsal pattern, which varies a lot. The pattern ranges from the usual one which is composed of light, transverse, wavy stripes against grey background to its reverse, i.e. a dark pattern against lighter background. Samples with the dorsal abdominal pattern usually have ventral spines on leg tibiae I–II, monochrome abdomen specimens usually do not have ventral spines. Ventral spines very rarely present in monochrome specimens (known from Bolshekhkhtsyrskiy N.R., ZMMU, CAT), or the specimens having dorsal abdominal pattern lack of ventral spines (Czech Republic, CAT). The shapes of the distal suprategular apophysis and radix vary slightly and are reliable for safe species identification.



Figs 7–13. *Bathyphantes eumenis* (L. Koch, 1879): 7 — “lamella”; 8 — radix; 9, 10 — distal suprategular apophysis, different views; 11, 12 — paracymbium; 13 — vulva, dorsal view (not to scale). 7–11 — specimen from Khabarovsk Area, Mogda; 12 — same locality, another specimen; 13 — specimen from Khabarovsk Area, Bureinskiy N.R.

Рис. 7–13. *Bathyphantes eumenis* (L. Koch, 1879): 7 — “ламелла”; 8 — радикус; 9, 10 — дистальный отросток супратегулюма, разные аспекты; 11, 12 — парацимбиум, 13 — эндогина, вид сверху (не в масштабе). 7–11 — экземпляр из Хабаровского края, Могда; 12 — там же, другой экземпляр; 13 — экземпляр из Хабаровского края, Бурейнский заповедник.

**DISTRIBUTION.** Fennoscandian–Siberian–Nearctic range, with an enclave in central Europe.

*Bathyphantes humilis* (L. Koch, 1879)

Figs 14–34.

1879 *Linyphia humilis* L. Koch: 25, pl. 1, fig. 12, ♀.

1926 *Bathyphantes biscopis* Kulczyński: 53, pl. 2, figs 15–17, ♀, examined.

1973 *B. humilis*. — Holm: 90, figs 54 & 55, ♀, examined.

1988 *B. humilis*. — Růžička: 152, fig. 2 (A), ♀.

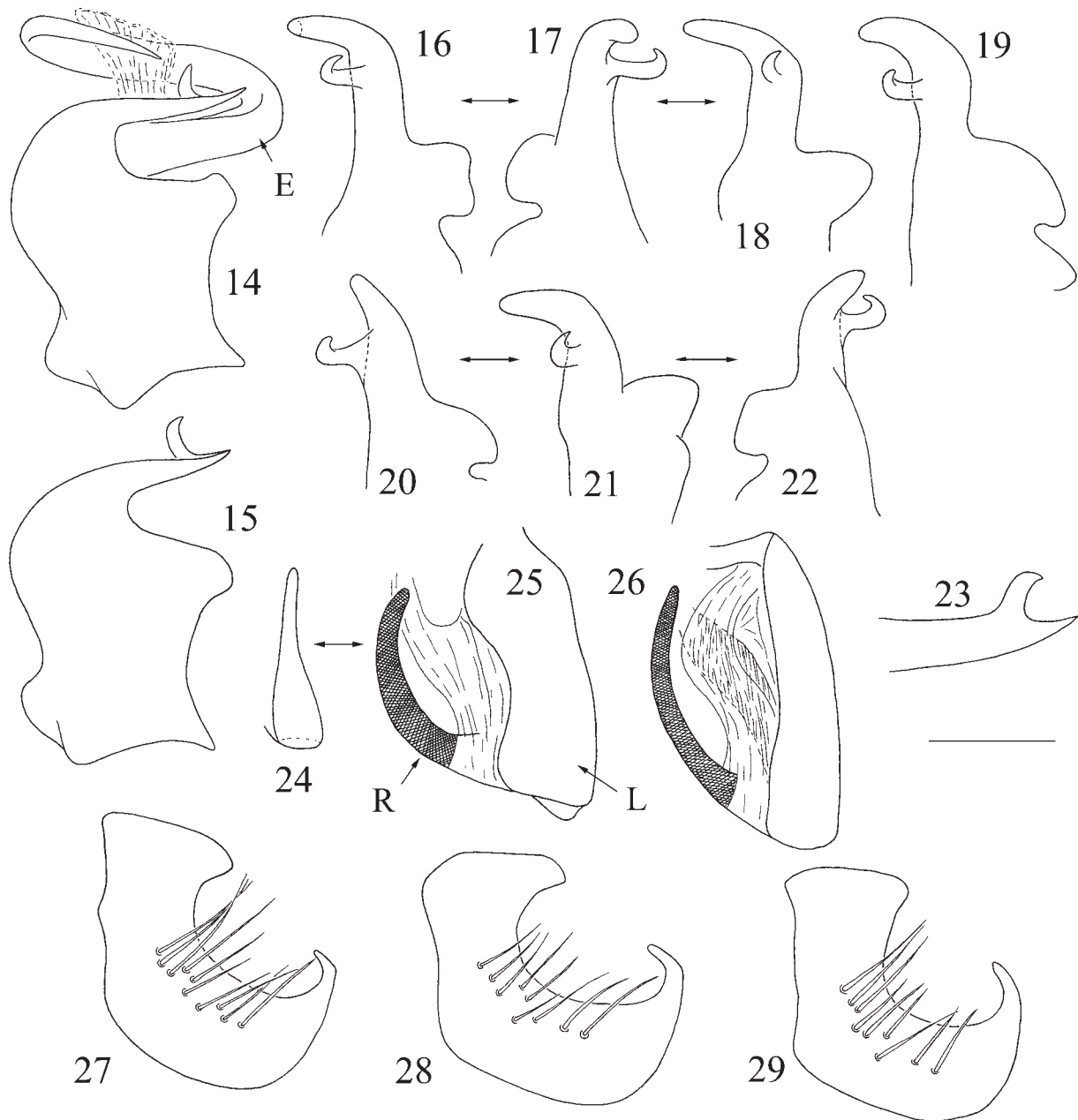
1992 *B. eumenoides*. — Marusik et al.: 140, misidentification, examined.

1992 *B. iviei*. — Marusik et al.: 140, misidentification, examined.

1992 *B. keeni*. — Marusik et al.: 140, misidentification, examined.

**TYPE MATERIAL.** *Bathyphantes humilis*: 1 ♀ holotype (NHRS, 239), 2 miles of Krasnoyarsk, 8.X.1875, det. Koch; 1 ♀ (NHRS, 238), Siberia, Nikandrowski Island, 70°40'N, 13–14.VIII.1876, coll. Theel & Trybom, det. Å. Holm. *B. biscopis*: 1 ♀ holotype (MIZ, 222662), Kamchatka, Klyuchevskoje. 10.VI.1909.

**OTHER MATERIAL EXAMINED.** *Bathyphantes humilis*: 1 ♀ (ZMMU, as *B. keeni*), RUSSIA, Chukotka, Chaun Bay, Puchevem River mouth, 25.VII.1985, leg. A. Ryabukhin; 1 ♀ (IBPN, as *B. aff. keeni*), middle reaches of Puchevem River, summer 1987, leg. A. Ryabukhin; 1 ♀ (ZMMU), Chaun Bay, summer 1986, leg. A. Ryabukhin; 2 ♂♂, 3 ♀♀ (IBPN, as *B. iviei*), Chaun River mouth, summer 1986, leg. A. Ryabukhin; 1 ♀ (ZMMU, as *B. eumenoides*), same, 20–24.VIII.1985, leg. A. Ryabukhin; 1 ♀ (ZMMU), 121 km of Egvekinot – Iultin main road, 28.VI.1989, leg. Y. Marusik; 7 ♂♂, 5 ♀♀ (IBPN), Magadan Area, 25 km E of Magadan, Ola River mouth, 18.IX.1990, leg. Y. Marusik; 1 ♂ (IBPN, together with 19 ♀♀ of *B. eumenis* in the same vial), Seimchan, upper reaches of Kolyma River, 2–4.IX.1990, leg. Y. Marusik; 1 ♀ (ZMMU), Sakhalin, Okha District, Beryozovka River (tributary of Bolshaya River), IX.1990, leg. A. Basarukin; 1 ♂, 2 ♀♀ (ZMMU), Aleksandrovsk-Sakhalinskiy District, Mgachi, 29.VI–6.VII.1982, leg. A. Basarukin; 2 ♂♂, 1 ♀ (IBPN), Krasnoyarsk Area, down flow of Kotulai River, 74°24'N, 103°E, VI–VII.2010, leg. O. Khrulyeva; 5 ♂♂, 4 ♀♀ (ZMMU), Evenkia, Taymura River flow, Neptene River mouth, environs of Kerbo Weather Station, 4.VIII.1982, leg. K. Eskov; 1 ♂, 11 ♀♀ (ZMMU, as *B. eumenoides* Holm, 1967), Taimyr Autonomous Region, Taimyr N.R., Novaya River flow, Ury-Mas Valley, 19.VII.1992, leg. A. Ryvkin; 3 ♂, 3 ♀ (ZMMU), SW of Taimyr Peninsula, Nyapan' Mt. Ridge, between

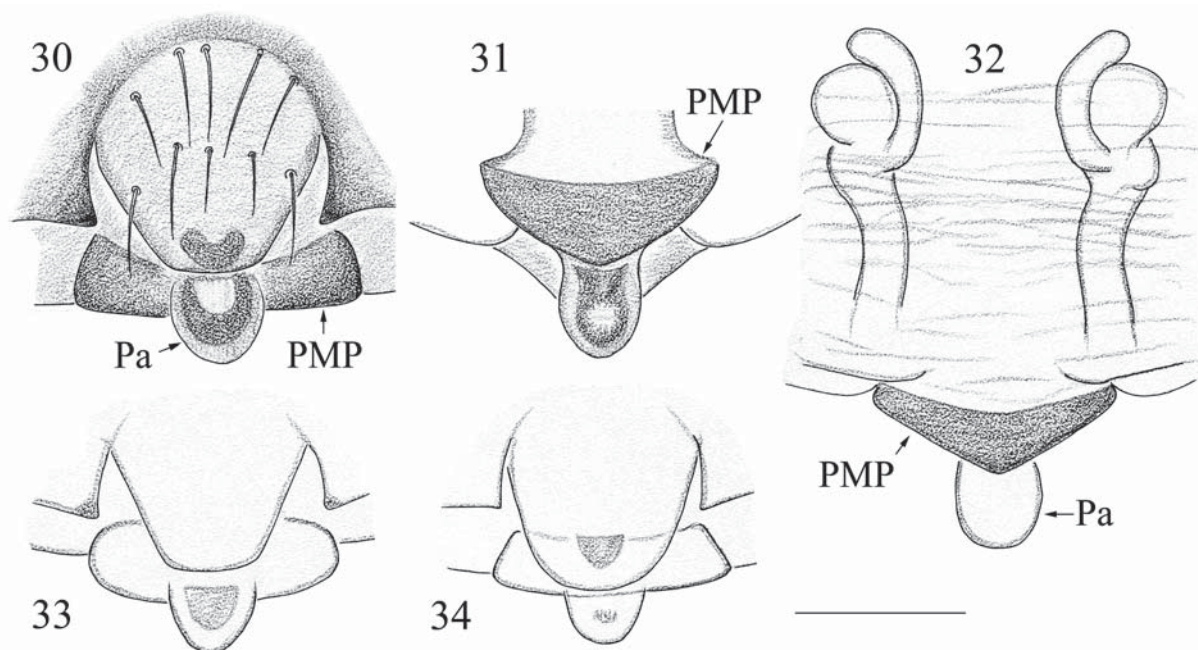


Figs 14–29. Palp details of *Bathypantes humilis* (L. Koch, 1879): 14 — “lamella” & embolus; 15 — “lamella”; 16–22 — distal suprategular apophysis, different views; 23 — distal part of “lamella”; 24 — radix separated; 25, 26 — radix and “lamella”; 27–29 — paracymbium. 14, 16–18, 27 — specimen from Sakhalin, Mgachi; 15, 20–25, 28, 29 — specimens from Taimyr N.R.; 19, 26 — specimen from Chukotka, Chaun River mouth. Arrows show the same specimen. Abbreviations: E — embolus; L — “lamella”; R — radix.

Рис. 14–29. Детали строения пальпы *Bathypantes humilis* (L. Koch, 1879): 14 — “ламелла” и эмболюс, 15 — “ламелла”; 16–22 — дистальный отросток супратегулюма, разный аспект; 23 — дистальная часть “ламеллы”; 24 — радикс (отделен); 25, 26 — радикс и “ламелла”; 27–29 — парацимбиум. 14, 16–18, 27 — экземпляр с Сахалина, Мгачи; 15, 20–25, 28, 29 — экземпляры из Таймырского заповедника; 19, 26 — экземпляр с Чукотки, устье р. Чаун. Стрелки указывают на один и тот же экземпляр.

lakes Ladannakh and Pyasino (70°09'N, 87°47'E), VII–VIII.1999–2001, leg. D. Osipov; 1 ♀ (ZMMU), Putorana Plateau, environs Lake Ayan, Bolshaya Khonnamakit River mouth, 22.VI.1983, leg. K. Eskov; 1 ♂ (ZMMU), West Taimyr, Pyasina River flow, Kresty, meadow, sweeping, VII.1977, leg. Y. Chernov; 3 ♀♀ (ZMMU), Yamalo-Nenetskiy Autonomous Region, south part of Yamal Peninsula, Shchyuchya River flow, Shchyuchye (67°14'N, 68°42'E), summer 1980, leg. A. Tikhomirova & E. Veselova; 1 ♀ (CAT), Nenetskiy Autonomous Region, Belushie, 9.VII.1983, leg. A. Tanasevitch.

REMARKS. *B. humilis* was originally described from two localities: valley of Yenisei River, Siberia: ♀ holotype, environs of Krasnoyarsk; 1 ♀, Nikandrovskiye Island, Taimyr Autonomous Region [Holm, 1973]. *B. biscopis* was described from a female from Klyuchevskoye, Kamchatka Peninsula [Kulczyński, 1926]. Holm [1973: 90] synonymized *B. biscopis* with *B. humilis*



Figs 30–34. Epigyne of *Bathypantes humilis* (L. Koch, 1879): 30, 33, 34 — ventral view; 31, 32 — dorsal view. 30–32 specimen from Sakhalin, Mgachi; 33 — specimen from Sakhalin, Beryozovka River; 34 — specimen from Chukotka, main road Egvekinot – Iultin. Abbreviations: Pa — parma; PMP — posterior median plate.

Рис. 30–34. Эпигина *Bathypantes humilis* (L. Koch, 1879): 30, 33, 34 — вид снизу; 31, 32 — вид сверху. 30–32 экземпляр с Сахалина, Мгачи; 33 — экземпляр с Сахалина, р. Берёзовка; 34 — экземпляр с Чукотки, трасса Эгвекино́т – Иультин.

quite ambiguously, noticing in the text that *B. biscopius* was a “new synonym”, but afterwards, in ‘Remarks’ [op. cit., p. 91], as “probably a synonym of *humilis*”. I can confirm that Holm [1973] was correct and both names are applied to the same species. Thus, the synonymy of *B. humilis* and *B. biscopius* has been confirmed.

The majority of the males retained in the ZMMU collection and previously determined as *B. humilis* actually refer to *B. eumenis* (see above, under “Material examined”). Differences between these species lie in the shape of the radix and of the distal suprategular apophysis (Fig. 8 cf. Fig. 24; Figs 9, 10 cf. Figs 16–22). The females of *B. humilis* can easily be recognized from other Palearctic species by the well-visible sides of the posterior median plate flanking the conical “scapus” (Figs 30, 33, 34). The drawings of *B. humilis* provided by Kulczyński [1916: pl. 1, figs 24, 25, ♀] and by Buchar [1967, fig. 2 (B, C), ♀] actually refer to *B. eumenis*.

The synonymy of *B. biscopius* (= *B. humilis*) with *B. keeni* (Emerton, 1917) proposed by Ivie [1969: 13] was based solely on a somewhat similarity of the epigyne of both species in the absence of the described corresponding male of *B. biscopius*. The male of *B. biscopius* which is described below allow me to conclude that these species are distinct and the synonymy is hence rejected. All the records of *B. keeni* from Russia are misidentifications and actually refer to *B. humilis*, so this species is removed from the Russian and Palearctic faunas. The distributional pattern of *B. keeni* is to be treated as the West Nearctic one.

**DESCRIPTION.** Male (the sample from Taimyr N.R., Ury-Mas Valley). Total length 2.80. Carapace unmodified, 1.30 long, 1.00 wide, brownish-yellow. Chelicerae 0.60 long. Legs pale brown, grey bands absent. Leg I 5.01 long (1.28 + 0.40 + 1.25 + 1.23 + 0.85), IV 4.71 long (1.25 + 0.35 + 1.20 + 1.18 + 0.73). Chaetotaxy: FeI: 1-1-0-0, II–IV: 1-0-0-0; TiI–IV: 2-1-1-0; all metatarsi unarmed. TmI 0.23. Metatarsus IV without trichobothrium. Palp as shown in Figs 14–29. Abdomen 1.55 long, 1.00 wide, abdomen dorsally grey with a pale herring-bone pattern.

The male of *B. humilis* is here described for the first time.

**VARIABILITY.** The chaetotaxy is rather stable, but sometimes an additional spine presents at the pro-lateral side of the femur I. Although the shapes of the “lamella”, distal suprategular apophysis and radix slightly vary, these structures are suitable for safe species identification. In contrast, the shape of the posterior median plate appears to vary considerably, with its lateral sides ranging from rounded (Fig. 33) to angular (Figs 30, 34); the angular variant considerably prevails in the material studied.

**DIAGNOSIS.** The epigyne of *B. humilis* is very similar to that of the Nearctic *B. brevis* (Emerton, 1911), but both species seem to be separated by small differences in the shape of the “lamella” and distal suprategular apophysis in the male. However, no specimen of *B. brevis* has been examined and our opinion is based on the examination of the available figures only.

**DISTRIBUTION.** Siberian.

*Bathyphantes iviei* Holm, 1970  
Figs 35–40.

1970 *Bathyphantes iviei* Holm: 196, figs 16–19, 21–22, ♂ & ♀, examined.

TYPE MATERIAL. *Bathyphantes iviei*: ♂ holotype, ♀ allotype (NHRS, 243), U.S.A., Alaska, Port Clarence, 23–26. Aug. 1879, coll. Vega-exp, det. Å. Holm.

REMARKS. The species was described from both sexes from Port Clarence, Alaska [Holm, 1970]. The single record of *B. iviei* from Chukotka, Russia by Marusik et al. [1992] is misidentification to be actually referred to *B. humilis* (Marusik's specimens re-examined, see above). Thus, this species is removed from the Russian and Palaearctic faunas.

DIAGNOSIS. The epigyne of *B. iviei* is similar to that of *B. humilis* and especially of *B. jeniseicus* Eskov, 1979, but can be distinguished from both by the shape of the posterior median plate (Fig. 40, cf. Figs 31, 32 & Figs 43, 44) and the well-protruded sharp corners of the lateral walls of the epigyne [see Holm, 1970, fig. 21]. The male of *B. iviei* can be easily recognized by the shape of both the radix and the distal suprategular apophysis (see Figs 37–39).

DISTRIBUTION. Known from the type locality in Alaska only.

*Bathyphantes jeniseicus* Eskov, 1979  
Figs 41–44.

1979 *Bathyphantes jeniseicus* Eskov: 65, figs 1, 2, ♂ only (!), examined.

1988 *B. jeniseicus*. — Růžička: 152, fig. 2 (D).

1992 *B. humilis*. — Eskov: 54, misidentification, examined.

TYPE MATERIAL. *Bathyphantes jeniseicus*: 1 ♂, 1 ♀ paratypes (ZMMU, TA 3726), RUSSIA, Krasnoyarsk Area, middle reaches of Yenisei River, left side of the river opposite Mirnoye, flood-plain willow stands, 18.VI.1978, leg. K. Eskov.

OTHER MATERIAL EXAMINED. *Bathyphantes jeniseicus*: 1 ♂ (ZMMU), RUSSIA, Evenkia, Taymura River flow, Neptene River mouth, water meadow, on ground, 6.VIII.1982, leg. K. Eskov; 1 ♀ (ZMMU), Taymura River flow, Chambe River mouth, environs of Kerbo Weather Station, Gramineae water meadow, on ground, 23.VIII.1982, leg. K. Eskov; 3 ♂♂, 1 ♀ (ZMMU), Krasnoyarsk Area, middle reaches of Yenisei River, left side of Yenisei River opposite Mirnoye, flood-plain willow stands, 27.VII.1979, leg. K. Eskov; 3 ♀♀ (ZMMU, as *B. humilis*), same, 27.VII.1979, leg. K. Eskov; 3 ♂♂, 1 ♀ (ZMMU), same, 28.VII.1979, leg. K. Eskov; 1 ♀ (ZMMU, as *B. humilis*), same, 6.VII.1979, leg. K. Eskov; 1 ♂ (ZMMU), Khabarovsk Area, environs of Malmyzh, 23.VII.1987, leg. A. Ryabukhin; 2 ♂♂, 1 ♀ (CAT), Amur Area, Seledzhinskiy District, Norskiy Nature Reserve, Burunda River near Ozyorniy Rill mouth, 1.X.2004, leg. A. Ryvkin; 1 ♂, 1 ♀ (CAT), Burunda River basin, environs of Cordon Burunda, swamp with *Sphagnum*, 10.IX.2004, leg. A. Ryvkin; 1 ♂ (CAT), Nora River, environs of Cordon Maltsevskiy, on clayish slumping river bank, 17.VI.2005, leg. E. Veselova & A. Ryvkin; 2 ♀♀ (ZMMU, as *B. humilis*), Bolshkekhehtsyrskiy Nature Reserve, VI.1987, leg. D. Logunov; 2 ♀♀ (CAT, as *B. humilis*), same, Cordon Chiri, 4.VI.2004, leg. A. Tanasevitch; 4 ♂♂, 5 ♀♀ (CAT), same, V.2004, leg. A. Tanasevitch; 1 ♂, 1 ♀ (CAT), Maritime Area, Chernigovka District, environs of Dmitriyevka (44°21'N, 132°47'E), willow stands, in sedge, 24–30.VII.1990, leg. A. Tanasevitch; 6 ♂♂, 5 ♀♀ (ZMMU, as *jeniseicus*?), Sakhalin, Tomari District, Aynskoye Lake, Ptich'ya River, meadow, 23.V–3.VI.1984, leg. A. Basarukin.

REMARKS. Eskov [1979] erroneously ascribed the bright coloured female of *B. eumenis* to that of *B.*

*jeniseicus*. Interestingly, that in the absence of the corresponding male all subsequent findings of the females of *B. jeniseicus* were assigned to *B. humilis*. A description of the female is thus given below for the first time.

DESCRIPTION. Female (from the type locality of *B. jeniseicus*). Total length 3.00. Carapace unmodified, 1.28 long, 1.00 wide, pale brown. Chelicerae 0.63 long. Legs pale brown, grey bands absent. Leg I 6.13 long (1.70 + 0.43 + 1.55 + 1.55 + 0.90), IV 5.45 long (1.50 + 0.39 + 1.35 + 1.38 + 0.83). Chaetotaxy: FeI: 1-1-0-0, II-IV: 1-0-0-0; TiI-IV: 2-1-1-0; all metatarsi unarmed. TmI 0.26. Metatarsus IV without trichobothrium. Abdomen 1.75 long, 1.20 wide, abdomen dorsally pale with a dark, sharp, herring-bone pattern. Epigyne as shown in Figs 41–44.

VARIABILITY. The chaetotaxy is rather stable, but sometimes an additional spine presents at the prolateral side of the femur I. The specimens from the Far East (Khabarovsk & Maritime Areas) seem to be more brightly coloured, having sometimes a reddish pink hue; the abdominal pattern also looks contrast. Some specimens from Sakhalin have the “scape” somewhat longer than that in the continental specimens, but the conformation of other parts of the epigyne, i.e. shape and arrangement of the receptacles, as well as the male palp conformation, fully correspond to those of the continental counterparts.

DIAGNOSIS. The epigyne of *B. jeniseicus* is similar to that of *B. iviei* and especially of the W-Nearctic *B. keeni*. The species can easily be distinguished by the shape of the “lamella” in the males.

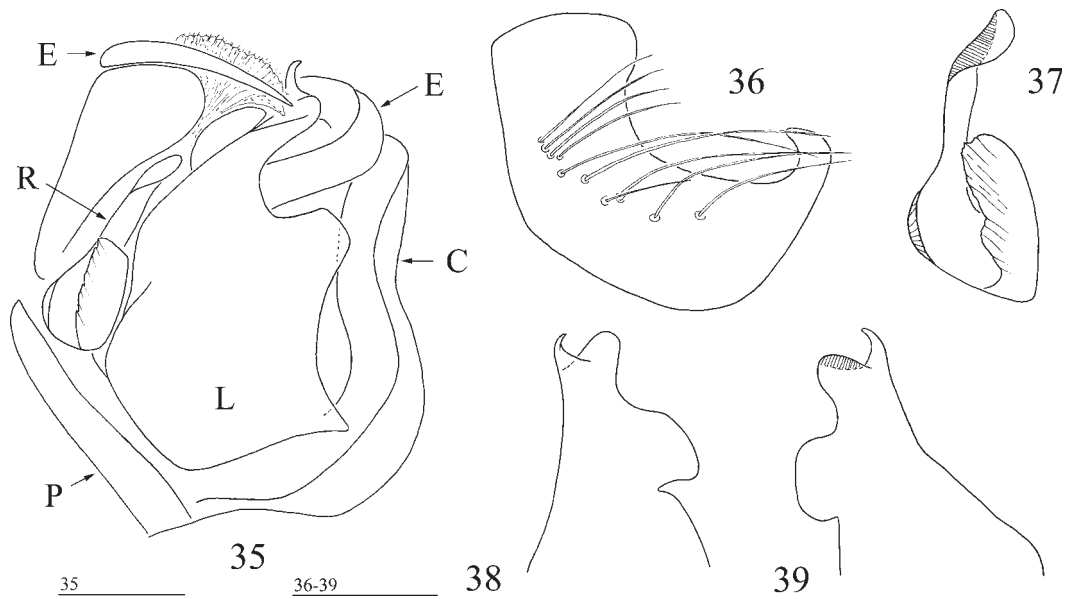
DISTRIBUTION. Siberian: from Southern Yamal eastward to Magadan Area, Sakhalin; Amur, Khabarovsk & Maritime Areas.

*Bathyphantes pogonias* Kulczyński, 1885  
Figs 45–56.

1885 *Bathyphantes pogonias* Kulczyński: 32, plate 10, fig. 12 (a–e), ♂ & ♀.

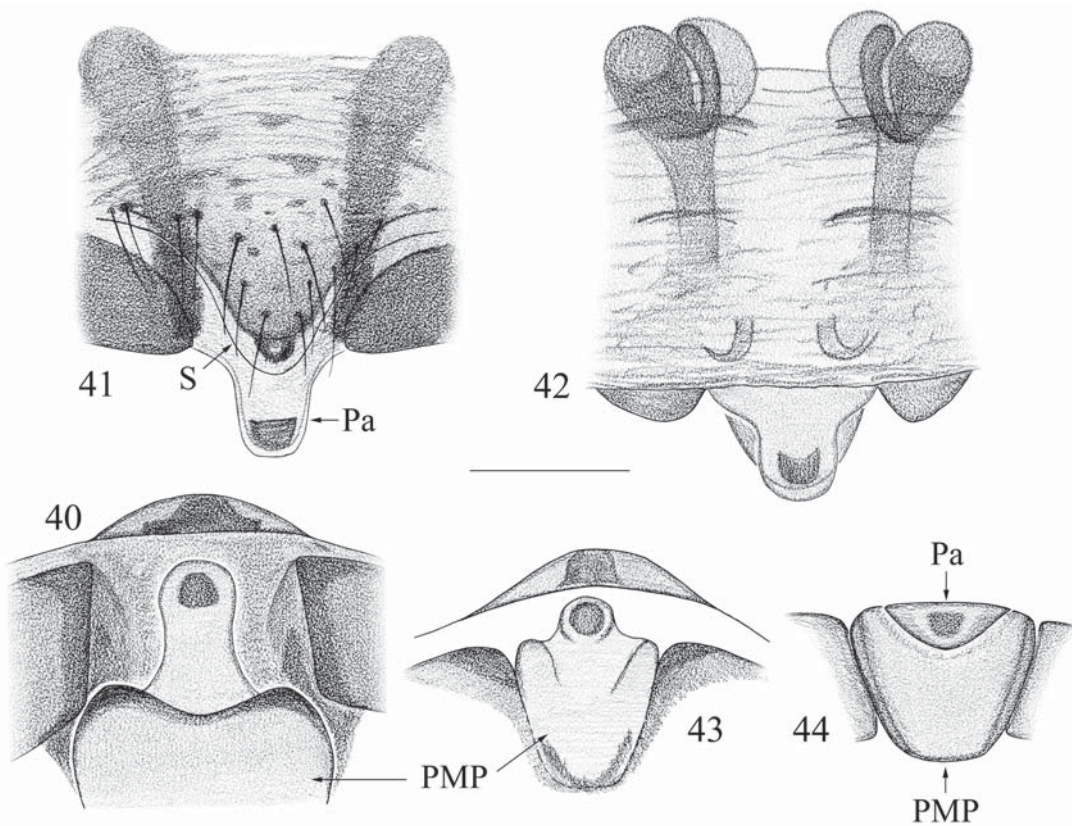
MATERIAL EXAMINED. *Bathyphantes pogonias*: ca 40 ♂♂ & ♀♀ (ZMMU), Sakhalin, Aynskoye Lake, Ptich'ya River, wet meadow, 23.V–13.V.1984, leg. A. Basarukin; 3 ♂♂, 2 ♀♀ (ZMMU), Makarov District, Pugachyovo, 5–6.IX.1988, leg. A. Basarukin; 2 ♂♂, 3 ♀♀ (ZMMU), Commander Islands, Mednyi Isl., date & leg. unknown; ca 50 ♂♂ & ♀♀ (CAT), Kamchatka, environs of Milkovo, *Betula* forest, grass, sweeping, 23.VIII.1987, leg. A. Tanasevitch; 7 ♂♂, 12 ♀♀ (CAT) environs of Paratunka, *Betula* forest, grass, sweeping, 11–12.VIII.1987, leg. A. Tanasevitch; 4 ♂♂, 3 ♀♀ (ZMMU), 40 km of Ust'-Kamchatskiy, IX.1973, leg. L. Glikman; ca 30 ♂♂ & ♀♀ (ZMMU), Magadan Area, environs of Magadan, Ola River flow, *Chosenia* & *Populus* forest, 7.X.1984, leg. Y. Marusik; 2 ♂♂, 1 ♀♀ (ZMMU), environs of Magadan, Dukcha River flow, sweeping, 25.VI.1985, leg. Y. Marusik.

REMARKS. The synonymy both of *B. castor* Chamberlin, 1925 and of *B. insulanus* Holm, 1960 with *B. pogonias* suggested by Marusik et al. [1993b] was questioned by Buckle et al. [2001]. Actually, the figures provided by Ivie [1969] for *B. castor* clearly show that its “lamella” is distinctly different from that of *B. pogonias*, therefore both *B. castor* and *B. pogonias* are to be treated as separate species names and this synonymy is to be rejected. The epigyne of *B. insulanus*, as shown by Holm [1960], is identical to that of *B. pogo-*



Figs 35–39. Palp details of *Bathypantes iviei* Holm, 1970, holotype: 35 — right palp, ventral view; 36 — paracymbium; 37 — radix; 38, 39 — distal supratregular apophysis, different views. Abbreviations: C — cymbium, E — embolus, L — “lamella”, P — paracymbium, R — radix.

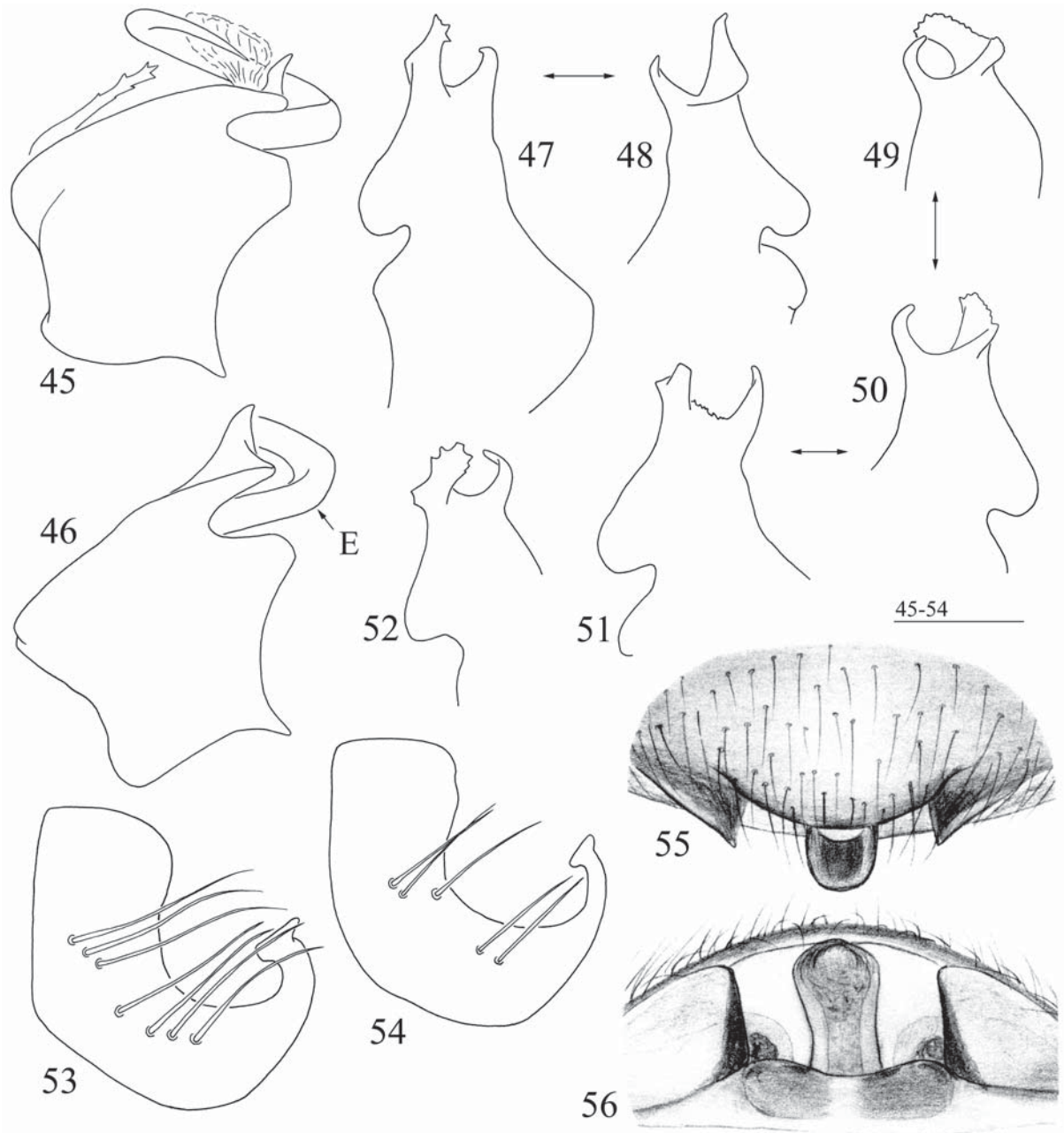
Рис. 35–39. Детали строения пальпы *Bathypantes iviei* Holm, 1970, голотип: 35 — правая пальпа, вид снизу; 36 — парацимбиум; 37 — радикс; 38, 39 — дистальный отросток супратегулома, разный аспект.



Figs 40–44. Epigyne of *Bathypantes iviei* Holm, 1970, allotype (40) and *B. jenseicus* Eskov, 1979, specimen from Mirnoye, Yenisei (41–44): 40, 42 — dorsal view; 41 — ventral view; 43, 44 — different aspects of anterodorsal view. Abbreviations: Pa — parmula; PMP — posterior median plate; S — “scapus”.

Рис. 40–44. Эпигина *Bathypantes iviei* Holm, 1970, аллотип (40) и *B. jenseicus* Eskov, 1979, экземпляр с Енисея, Мирное (41–44): 40, 42 — вид сверху; 41 — вид снизу; 43, 44 — вид снизу и спереди, разный аспект.





Figs 45–56. *Bathyphantes pogonias* Kulczyński, 1885: 45, 46 — “lamella” & embolus; 47–52 — distal suprategular apophysis, different views; 53, 54 — paracymbium; 55, 56 — epigyne (after Holm, 1960, as *B. insulanus* Holm, 1960, not to scale). 45, 47–51, 54 — specimens from Magadan Area, Dukcha; 46, 52, 53 — specimen from Kamchatka, Ust’-Kamchatsk. Arrows show the same specimen. Abbreviations: E — embolus.

Рис. 45–56. *Bathyphantes pogonias* Kulczyński, 1885: 45, 46 — “ламелла” и эмболюс; 47–52 — дистальный отросток супратегулома, разный аспект; 53, 54 — парацимбиум; 55, 56 — эпигина (по Holm, 1960, как *B. insulanus* Holm, 1960, не в масштабе). 45, 47–51, 54 — экземпляры из Магаданской обл., Дукча; 46, 52, 53 — экземпляр с Камчатки, Усть-Камчатск. Стрелки указывают на один и тот же экземпляр.

*nias*, so the synonymy of *B. insulanus* Holm, 1960 and *B. pogonias* Kulczyński, 1885 is confirmed.

**VARIABILITY.** The shape of the distal suprategular apophysis, as well as the paracymbial spination show insignificant variability, yet despite of this all

parts of the male copulatory organs are well recognizable and, together with the particularly pilose male clypeus [see Kulczyński, 1885: fig. 12 (d)], make this species easily distinguishable from other congeners.

**DISTRIBUTION.** East Palearctic–Nearctic.

*Bathyphantes* sp.

Figs 57–67.

MATERIAL EXAMINED. 3 ♂♂ (ZMMU, as *B. eumenis* & *B. humilis*), Krasnoyarsk Area, middle reaches of Yenisei River, left bank of Yenisei River opposite Mirnoye, flood-plain willow stands, 27.VII.1979, leg. K. Eskov; 3 ♂♂ together with 1 ♀ of *B. eumenis* in the same vial (ZMMU, all as *B. eumenis*), Yamalo-Nenetskiy Autonomous Region, south of Yamal Peninsula, Shchyuchya River flow, Shchyuchye (67°14'N, 68°42'E), summer 1980, leg. A. Tikhomirova & E. Veselova; 1 ♂ together with 1 ♀ of *B. eumenis* in the same vial (CAT, all as *B. eumenis*), Nenets Autonomous Region, environs of Narian-Mar, peatbogs, under *Betula nana*, moss, litter, 6.VII.1984, leg. A. Tanasevitch.

REMARKS. The palp of these *Bathyphantes* specimens is very similar to those of *B. eumenis* and *B. humilis* and a reliable identification is only possible on the basis of the shape of the sclerites hidden inside the palp, i.e. distal suprategular apophysis and radix. The basic difference of the *Bathyphantes* sp. palp lies in the spindle-shaped radix (Figs 62, 63), which is sometimes visible through a translucent tegulum (Fig. 57). The shape of the “lamella” is very similar to that of *B. humilis*, but the distal suprategular apophysis resembles that of *B. iviei*. All the males of *Bathyphantes* sp. have distinct abdominal pattern and no ventral spines on leg tibiae I–II. The females collected together with males of *Bathyphantes* sp. actually belong to *B. eumenis* and show an abdominal pattern and have no ventral spines. Yet, one female from Yamal Peninsula has the elongated receptacles somewhat shorter than it usually is in *B. eumenis*, compared to the female from Narian-Mar having them at the ordinary length. The presence of the variable receptacle length in the same population of *B. eumenis* has been already demonstrated by Woźny & Czajka [1985] and Tao et al. [1995]. All the Siberian *Bathyphantes* species are represented by both sexes. The presence of a new species known from the males only seems impossible, because in the collections males are much rarer than the corresponding females and thus the females of this species should have been known for a long time. Thus, the question of whether the *Bathyphantes* sp. is a new species or not remains open.

*Diplocephalus cristatus* (Blackwall, 1833)

1833 *Walckenaeria cristata* Blackwall: 107, ♂ & ♀.  
1973 *Diplocephalus cristatus angusticeps* Holm: 81, figs 23, 24, 27, ♂ & ♀, **syn.n.**

TYPE MATERIAL. *Diplocephalus cristatus angusticeps*: 4 ♂♂, 4 ♀♀ (NHRS, 242), Pupkowskij, lat. 64°42', 14.IX.1875, colleg. Nd & Sd., determ. Koch (as *Erigone cristata* Bl.).

OTHER MATERIAL EXAMINED. *Diplocephalus cristatus angusticeps*: 3 ♂♂, 2 ♀♀ (ZMMU), RUSSIA, Evenkia, Taymura River flow, between Neptene & Chambe rivers mouth, 9–13.VII.1982, leg. K. Eskov; 3 ♂♂, 13 ♀♀ (ZMMU), Krasnoyarsk Area, middle reaches of Yenisei River, Mirnoye, bank of Yenisei River, under logs & drift woods, 28.VIII.1978, leg. K. Eskov; 2 ♂♂, 9 ♀♀ (ZMMU), same, Varlamovka River, pebble bank, VIII.1978 & 1979, leg. K. Eskov. *D. cristatus*: 3 ♂♂, 3 ♀♀ (CAT), Kamchatka, Petropavlovsk-Kamchatskiy, bank of lake, *Salix* stands with Gramineae, in litter, 26.IX.1988, leg. A. Tanasevitch; 4 ♂♂ (CAT), Krasnoyarsk Area, Turukhansk District, Eloguyskiy N.R., Eloguy River flow, 6 km downstream Tyna River mouth, *Pinus* forest with *Sphagnum* spp., *Empetrum nigrum*, *Rubus chamaemorus*,

*Ledum*, 23.VII.1992, leg. V. Semenov (**new locality**); 3 ♂♂, 3 ♀♀ (CAT), Evenkia, Turukhansk District, Kamennaya Tunguska River flow, 23–24. IX.1992, leg. V. Semenov (**new locality**); 4 ♂♂, 4 ♀♀ (CAT), Tungusko-Chyunskiy Distr., Khushma River flow, Pristan', 5.IX.1994, leg. A. Ryvkin (**new locality**); 1 ♀ (CAT), Republic of Khakassia, Kuznetskiy Alatau Mts, 7–15 km NE of Balyksa (53°24'N, 89°07'E), Terensug River Valley, 18.V.1997, leg. R. Dudko; 1 ♀ (CAT), Republic of Altai, Altai Mts, Lake Teletskoye, Altaiskiy N.R., 1800 m a.s.l., shore of Chiri Lake, under stones, 27.VII.1997, leg. A. Tanasevitch (**new locality**); 1 ♀ (CAT), Nenetskiy Autonomous Region, environs of Belushie, near the village, grassy meadow, under stones, 14.VII.1983, leg. A. Tanasevitch; 1 ♀ (CAT), environs of Volonga, 5 km from mouth of Volonga River, moss-undershrub birch forest on river terrace, in moss, 20.VII.1983, leg. A. Tanasevitch; 1 ♂, 9 ♀♀ (CAT), 7 km from mouth of Volonga River, dry channel, among stones, 18.VII.1983, leg. A. Tanasevitch; 1 ♂, 15 ♀♀ (CAT), 10 km from Volonga River mouth, rocky bank, in crevices, among stones, 18–19.VII.1983, leg. A. Tanasevitch; 6 ♀♀ (CAT), Komi Republic, environs of Zarechniy, bank of Vorkuta River, under stones on rocky slopes, 17.VIII.1984, leg. A. Tanasevitch; 12 ♀♀ (CAT), environs of Sivomaskinskiy, right bank of Usa River, under stones on bank, 5.VII.1981, leg. A. Tanasevitch; 1 ♂, 1 ♀ (ZMMU), Murmansk Area, Teriberka, meadow in the village, 11.VII.2008, leg. L. Rybalov & V. Semenov; 2 ♀♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Kurchyumskiy Mt. Ridge, upper reaches of Topolyovka River, subalpine, 2100–2200 m a.s.l., 4–5.VII.1997, leg. R. Dudko & V. Zinchenko (**new locality**); 1 ♂ (ZMMU), Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m a.s.l., 10.V.1999, leg. R. Dudko, V. Zinchenko & I. Lyubechyansky (**new locality**).

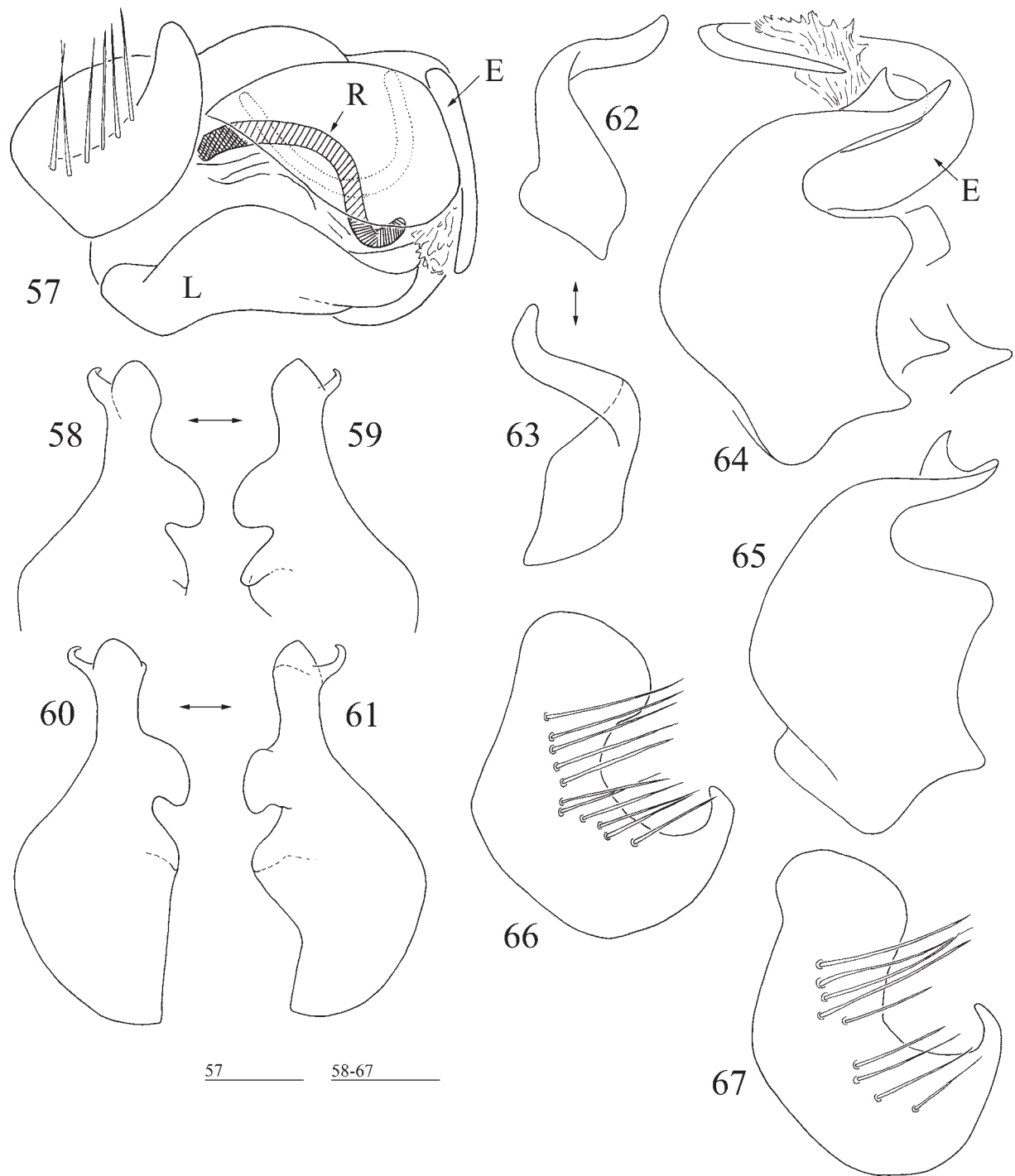
REMARKS. The subspecies *Diplocephalus cristatus angusticeps* was erected solely on the basis of a slightly “higher and narrower cephalic lobe” [Holm, 1973] of the male carapace. Given the present state of knowledge of the high degree of variation observed in the linyphiids as a whole, this character looks obsolete. A study of abundant material has shown that such the shape of cephalic division occurs in various parts of the distribution range, thus giving no grounds whatsoever to accepting this subspecies. The copulatory organs vary only slightly, being virtually identical throughout the species' range. Therefore, it is safe to conclude that *D. cristatus angusticeps* is a junior synonym of *D. c. cristatus*, **syn.n.**

*Minyrioloides trifrons* (O. Pickard-Cambridge, 1863)

1863 *Walckenaeria trifrons* O. Pickard-Cambridge: 8589, ♂ & ♀.  
1930 *Minyrioloides affinis* Schenkel: 10, fig. 4 (a–e), ♂ & ♀, **syn.n.**

1945 *M. t. affinis* Holm: 31, fig. 8 (h–i), ♂ & ♀.

MATERIAL EXAMINED. *Minyrioloides trifrons*: 3 ♀♀ (ZMMU), RUSSIA, Magadan Area, Snezhnaya Dolina, bank of Dukcha River, 7.X.1984, leg. Y. Marusik; 1 ♂ (ZMMU), environs of Magadan, Talon, summer 1977, pitfall traps, leg. N. Dokuchayev; 3 ♀♀ (ZMMU), 29 km N of Magadan, Dukcha River, 27.VIII.1988, leg. Y. Marusik; 2 ♀♀ (IBPN, as *M. affinis*), Khabarovsk Area, Okhotskiy District, Gyrbykan River (Ul'ya River basin), 20.VIII–15.IX.1986, leg. I. Sukacheva; 9 ♂♂, 7 ♀♀ (ZMMU), Sakhalin, Aynskoye Lake, Ptich'ya River, wet meadow, 24–25.V.1984, leg. A. Basarukin; 1 ♂, 1 ♀ (ZMMU), southern Sakhalin, Kholmskiy District, Cape Slepikovskogo, 6–8.VII.1990, leg. A. Basarukin; 1 ♂, 1 ♀ (CAT), Kamchatka, Milkovo (54°41'N, 158°38'E), Kamchatka River Valley, *Betula* forest with Gramineae, in grass, 23–24.VIII.1987, leg. A. Tanasevitch; 1 ♂, 1 ♀ (ZMMU), Khabarovsk Area, Bureinskiy N.R., Bureya River Valley, Bureyka River basin, Siuriuktak River Valley, 300 m a.s.l., upstream of its mouth, 30.VII.2005, leg. L. Trilikauskas; 4 ♂♂, 3 ♀♀ (ZMMU), Burein-



Figs 57–67. Palp details of *Bathyphantes* sp: 57 — right palp, ventral view; 58–61 — distal suprategular apophysis, different views; 62, 63 — radix; 64 — “lamella” & embolus; 65 — “lamella”; 66, 67 — paracymbium. 57–59, 62, 63, 67 — specimen from Krasnoyarsk Area, Mirnoye; 60, 61, 64–66 — specimen from Nenets A. R., Narian-Mar. Arrows show the same specimen. Abbreviations: E — embolus; L — “lamella”; R — radix.

Рис. 57–67. Детали строения пальпы *Bathyphantes* sp: 57 — правая пальпа, вид снизу; 58–61 — дистальный отросток супратегулома, разный аспект; 62, 63 — радикс; 64 — “ламелла” и эмболос; 65 — “ламелла”; 66, 67 — парацимбиум. 57–59, 62, 63, 67 — экземпляр из Красноярского края, Мирное; 60, 61, 64–66 — экземпляр из Ненецкого А.О., Нарьян-Мар.

skiy N.R., 29.VI.2006, leg. L. Trilikauskas; 1 ♀ (ZMMU), Amurskaya Area, Norskiy N.R. 14.VII.2005, leg. A. Ryvkin; 1 ♀ (ZMMU), Jewish Autonomous Area, Dichyun, 15.VI.1980, leg. V. Belov; 1 ♂ (ZMMU), Yakutia, Lena River flow, Sangar, stony bank of river, 23–28.VI.1989, leg. K. Eskov; 2 ♀♀ (ZMMU), Krasnoyarsk Area, Mirnoye, taiga forest, sweeping, 4.VII.1977, leg. K. Eskov; 2 ♀♀ (ZMMU), Yamalo-Nenetskiy Autonomous Region, south of Yamal Peninsula, Shchyuchya River, Shchyuchye, wet meadow, 3.VIII.1980, leg. A. Tikhomirova; 1 ♀ (CAT), Nenets Autonomous Region, 2 km from mouth of Volonga River, 26.VII.1983; 1 ♀ (CAT), environs of Narian-Mar, 10.VII.1984, leg. A. Tanasevitch; 3 ♀♀ (CAT), upper reaches of Shapkina River, 13–17.VII.1984, leg. A. Tanasevitch; 2 ♀ (CAT), environs of Nizhnyaya Pyosha, 2–7.VII.1983, leg. A. Tanasevitch; 1 ♂ (CAT), Komi Republic, 80 km NW of Vorkuta, environs of Lake Diya-Ty, 14.VII.1980, leg. A. Tanasevitch; 1 ♂ (CAT), Sivomaskinskiy, 10 km NE of the village, bank of Usa River, 5.VII.1981, leg. A. Tanasevitch; 1 ♂, 2 ♀♀ (ZMMU), Murmansk Area, Kola Peninsula, Teriberka, Orlovka River valley, 9.VII.2008, leg. L. Rybalov & V. Semenov; 3 ♂♂, 8 ♀♀ (ZMMU), Tuva, 1–2 km S and SE of Lake Chagytai, northern foothills of eastern Tannu-Ola Mt. Ridge (55°57'N, 94°41'E), 1200–1800 m a.s.l., 26.VI–2.VII.1989, leg. D. Logunov.

**REMARKS.** *Minyrioloides affinis* was originally described from both sexes from Klyuchi, central Kamchatka [Schenkel, 1930]. Later, Holm [1945] downgraded the species to the subspecies rank, *M. trifrons affinis*, considering its differences from the nominate taxon as insignificant. A (re)examination of the material of *Minyrioloides trifrons* originating from many places in Eurasia, including the *terra typica*, as well as a comparison of the illustrations in numerous publications (see Platnick [2011]), has unequivocally shown that the slight differences that *M. t. affinis* demonstrates in the shape of the carapace, palpal tibia, embolic division and epigyne represent nothing more than individual variations. The barely enlarged part of the embolic division referred to by Holm [1945, cf. fig. 8: e & i] as the basic character to discriminate the Kamchatka subspecies can be found in specimens from the Bureya River Basin and Tuva. Therefore, it is safe to conclude that *M. trifrons affinis* is to be treated as a junior synonym of *M. t. trifrons*, **syn.n.**

The record of *M. trifrons* from the Tien-Shang Mts, Kyrgyzstan [Tanasevitch, 1989] is a misidentification, actually referring to *M. maritimum* Crocker et Parker, 1970 (see below).

**VARIABILITY.** The shape of the male carapace varies, but always recognizable. The shape of the palpal tibia varies insignificantly all over the distribution range; yet the shape of the small, black, tooth-shaped outgrowth differs considerably even within a single population. The epigynal shape is likewise quite variable: it suffices to look at the illustrations presented by Roberts [1987, figs 15d]. Both European and Asian populations contain the females of which the epigyne is close to that observed in *M. maritimum* (see below).

**DISTRIBUTION.** Holarctic.

*Minyrioloides maritimum* Crocker et Parker, 1970

1970 *Minyrioloides maritimum* Crocker et Parker: 81, figs 1–3, 5, 7, 9, ♂ & ♀.

**TYPE MATERIAL EXAMINED.** *Minyrioloides maritimum* (all from MMUM): Paratypes: 3 ♂♂, 11 ♀♀, U.K., Norfolk, Win-

terton Dunes N.R. (TG490214), June, 1969, leg. & det. J. Crocker, 3812; more than 100 ♀♀, Winterton, 576.6.69, leg. & det. J. Crocker (ex. coll. J. Crocker, G7474); 3 ♂♂, 3 ♀♀, Norfolk, 6.VII.1972, leg. J. Crocker (ex. coll. G.H. Locket, G7478.672); 1 ♂, 3 ♀♀, Winterton Dunes N.R., G7497.2058, June, 1969, leg. & det. J. Crocker; 6 ♂♂, 75 ♀♀, Winterton Dunes N.R., TG493209, Ref: 693.6.72, 18.VI.1972 (ex. coll. J. Crocker, G7474); 2 ♂♂, 3 ♀♀, Winterton Dunes N.R., TG490214, May/June, 1969, leg. & det. J. Crocker (ex. coll. J. Crocker, G7474); 2 ♀♀, 1 ♀ subad., Winterton Dunes N.R., Yellow Dunes, No 3812, 16.IX.1968 (ex. coll. J. Crocker, G7474); 13 ♀♀, Winterton Dunes N.R., April/May, 1969 (ex. coll. J. Crocker, G7474); ca 30 ♀♀, Winterton Dunes N.R., April/May, 1969 (ex. coll. J. Crocker, G7474); 2 ♂♂ ♀ subad., 10 ♀♀, Winterton Dunes N.R., TG490214, Sept., 1968, 3812, coll. & det. J. Crocker (ex. coll. J. Crocker, G7474); 9 ♀♀, Anderby Creek, TF 565755, 13.VII.1970, leg. J. Crocker (ex. coll. J. Crocker, G7474); 12 ♀♀, Holm Dunes, 5736.69, (ex. coll. J. Crocker, G7474); 1 ♂, ca 70 ♀♀, Holkham Dunes N.R., 574.6.69 (ex. coll. J. Crocker, G7474); 1 ♂, 39 ♀♀, Blakeney Point N.R., 575.6.69 (ex. coll. J. Crocker, G7474).

**OTHER MATERIAL EXAMINED.** 1 ♀ (ZMMU, as *Minyrioloides trifrons*), KYRGHYZSTAN, North Tien-Shang Mts, Lake Issyk-Kul Area, Kungei-Alatau Mt. Ridge, Chon-Uryukty Valley, 2100 m a.s.l., 4.VII.1985, leg. S. Ovtchinnikov; 1 ♂, 19 ♀♀ (CAT), North Tien-Shang Mts, Ferganskiy Mt. Ridge, environs of Yarodar, 1400 m a.s.l., *Juglans regia* forest, leaf litter, X.1984, leg. S. Zonstein (**new locality**).

**VARIABILITY.** A (re)examination of the available material has shown that a slight variation is observed in the shape of the cephalic elevation of the male carapace, while the shape of the palpal tibia varies very little and is always clearly distinct from that of *M. trifrons*. In the latter species, the palpal tibia varies considerably: it suffices to look at the illustrations based on the European material: e.g., Locket & Millidge [1953, fig. 141 (B)], Wiehle [1960, fig. 700], or Locket et al. [1974, fig. 50 (F)]. The shape of the embolic division is rather stable, as are the size and shape of the large, flattened, membrane-like outgrowth at the base of the anterior radical process.

**REMARKS.** A study of the aforementioned material of *M. trifrons* from the Tien-Shang Mts shows its complete match to the type and voucher specimens of *M. maritimum* (see above). The male of *M. maritimum* differs reliably in having the narrowed retrolateral lobe of the palpal tibia, the elongated anterior process of the embolic division, and the large, flattened, membrane-like outgrowth; the female can be distinguished by the caudally diverging parts of the ventral plates of its epigyne.

Females with the caudally diverging parts of the ventral plate also exist but rare in *M. trifrons*, e.g., those from Kola Peninsula, the Bureinskiy N.R. and Tuva (see above under 'Material Examined' of *M. trifrons*), while a few specimens from Mirnoye are intermediate. Yet, the males from these localities are invariably typical of *M. trifrons*.

**DISTRIBUTION.** The species was first described from the U.K. [Crocker & Parker, 1970] and later found in some countries of Western Europe. The easternmost area of its known distribution was Germany. The above discovery of this species in the mountains of Central Asia (North Tien-Shang Mts) is quite surprising.

*Oryphantes geminus* (Tanasevitch, 1982)

1982 *Lepthyphantes geminus* Tanasevitch: 504, pl. 2, figs 6–9, pl. 3, figs 3, 4, ♂ & ♀, examined.

1996 *L. tes* Marusik, Hippa et Koponen: 14, figs 8, 10 (A), 11 (B), 13 (B), ♂ & ♀, examined, **syn.n.**

TYPE MATERIAL. *Lepthyphantes tes*: ♂ holotype and 6 ♀♀ paratypes (ZMT), USSR, SW Altai, 7 km W of Katanda, Katun River Valley, pitfall traps in moist grove, 23.VI–26.VII.1983, leg. H. Hippa; 2 ♀♀ paratypes (ZMMU, TA 7414), same locality and date.

OTHER MATERIAL EXAMINED. *Oryphantes geminus*: 1 ♂, 1 ♀ (CAT), RUSSIA, Altai Mts, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m a.s.l., 29.VII–1.VIII.1997, leg. S. Golovatch & A. Tanasevitch; 2 ♀♀ (ZMMU), Seminskiy Pass, 1800–2000 m a.s.l., 27.VII.1990, leg. S. Ovtchinnikov; 1 ♀ (ZMMU), 5 km SSW of Ust'-Kan, Kutergen River Valley, 1300 m a.s.l., forest, 7.VI.1999, leg. A. & R. Dudko; 1 ♀ (ZMMU), 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m a.s.l., sub-alpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko; 1 ♀ (CAT), Kemerovo Area, Kuznetskiy Alatau N.R., 16 km SW of Belogorsk, Kiya River flow, riverine taiga, 14–17.VII.1995, leg. S. Golovatch & A. Ryvkin; 2 ♂♂ (CAT), Khakassia, Kuznetskiy Alatau Mts, 15 km NE of Balyksu, right bank of Terensug River, 1000–1400 m a.s.l., 19.V.1997, leg. R. Dudko (**new locality**); 4 ♂♂, 5 ♀♀ (CAT), Irkutsk Area, Lake Baikal, environs of Bolshiye Koty Field Station, VI.1988, leg. A. Tanasevitch; 1 ♂, 2 ♀♀ (CAT), Evenkia, near Vanavarka, 21.VIII.1994, leg. A. Ryvkin (**new locality**); 1 ♂ (CAT), Krasnoyarsk Area, Tsentral'nosibirskiy N.R., Cordon Yuzhnyi, 2.X.1994, leg. A. Ryvkin (**new locality**); 1 ♀ (ZMMU), Stolby N.R., 18.VIII.1994, leg. I. Ushakov; 2 ♂♂, 1 ♀ (ZMMU), KAZAKHSTAN, East-Kazakhstan Area, Altai Mts, Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m a.s.l., 10.V.1999, leg. R. Dudko, V. Zinchenko & I. Lyubechynsky.

REMARKS. A study of the male holotype and female paratypes of *Lepthyphantes tes* has revealed that they are identical to *Oryphantes geminus*, **syn.n.** In the original description, some details of the genitalic structure were depicted incorrectly: e.g., the shape of the cymbial posterodorsal outgrowth in the holotype [Marusik et al., 1996, fig. 10 (B)] is actually not square, being less in size and corresponding to that of *L. geminus*; the epigynes of the paratypes were drawn in slightly different aspects, therefore creating a false impression of small differences; the narrow distal part of the lamella characteristica falls well into the variability range of *L. geminus* — if one looks at that sclerite in the *L. tes* holotype at different angles, its distal part sometimes appears rather wider than it was depicted by Marusik et al. [1996, fig. 8].

DISTRIBUTION. Siberian.

## New records and previous misidentifications

*Agyneta saaristoi* Tanasevitch, 2000

MATERIAL EXAMINED. *Agyneta saaristoi*: 1 ♂ (ZMMU, as *Agyneta* sp.), RUSSIA, Khakassia, 25 km NE of Askiz, stony steppe, 15.VIII.1990, leg. D.V. Logunov; 1 ♂ (ZMMU, as *Agyneta* sp.), Buryatia, Lake Baikal, Boyarskiy (51°50'N, 106°03'E), bogs with *Ledum*, 22.VI.1983, leg. S. Danilov.

REMARKS. The species is first recorded from the Khakassian and Buryat faunas. The locality at Lake Baikal is the easternmost point of the known distribution range of *A. saaristoi*.

*Agyneta tibialis* Tanasevitch, 2005

MATERIAL EXAMINED. *Agyneta tibialis*: 1 ♂, 2 ♀♀ (ZMMU, labeled as *A. affinisoides*?), RUSSIA, Tuva, Tes-Khem District, 20 km NW of Khol'-Oozhu, eastern Tannu-Ola Mt. Ridge, 2100 m a.s.l., mountain tundra, 8–9.VII.1989, leg. D.V. Logunov.

REMARKS. The species is first recorded from the fauna of Tuva.

*Caviphantes pseudosaxetorum* Wunderlich, 1979

TYPE MATERIAL. *Caviphantes pseudosaxetorum*: 1 ♀ paratype (SMF, 29677), Nepal, Thakkhola, from Kali Gandaki Valley to Main Himalayan Mt. Ridge, Chadziou Khola Valley near Ghasa, 2330 m a.s.l., 31.X.1969, leg. J. Martens.

OTHER MATERIAL EXAMINED. *Caviphantes pseudosaxetorum*: 1 ♀ (ZMMU), RUSSIA, Kurile Islands, Iturup Island, Gulf Dobroye Nachalo, mixed forest, 14.VIII.1995, leg. K. Eskov; 1 ♀ (ZMMU), Iturup Isl., Reidovo, broadleaved forest, 18.VIII.1995, leg. K. Eskov; ca 40 ♂♂ & ♀♀ (MHNG) from northern PAKISTAN and INDIA [Tanasevitch, in preparation].

REMARKS. The species was described from the Nepal Himalayas [Wunderlich, 1979], later recorded from Japan [Ono et al., 1991], China [Gao et al., 1992], Lebanon [Tanasevitch, 2011] and now is first recorded from the Kurile Islands (the first record for the Russian fauna).

*Gongylidiellum orduense* Wunderlich, 1995

1990 *Gongylidiellum murcidum*. — Tanasevitch: 53, in part, misidentification, re-examined.

MATERIAL EXAMINED. 1 ♂ (CAT, as *Gongylidiellum murcidum*), Caucasus, Georgia, Algeti N.R., N of Manglis, *Fagus*, *Picea*, *Acer* forest, 1400–1450 m a.s.l., litter, under bark, 16–18.V.1987, leg. S. Golovatch.

REMARKS. A re-examination of the *G. murcidum* material from the Caucasus retained at the CAT & ZMMU has shown that one male from a large series of *G. murcidum* (= *G. vivum*, see below) from Algeti N.R., Georgia, was determined incorrectly [Tanasevitch, 1990] and actually belongs to *G. orduense*. The species is first recorded from the Caucasian fauna.

*Gongylidiellum vivum* (O. Pickard-Cambridge, 1875)

1987 *Gongylidiellum murcidum*. — Tanasevitch: 352, misidentification, re-examined.

1990 *G. murcidum*. — Tanasevitch: 53, misidentification, re-examined.

1993b *G. vivum*, Marusik et al.: 76, re-examined.

MATERIAL EXAMINED. *Gongylidiellum vivum*, all as *G. murcidum*: 1 ♂, 2 ♀♀ (ZMMU), 3 ♀♀ (SMF, 33804), Caucasus, RUSSIA, Krasnodar Area, Goryachiy Klyuch, 12 km SW of Fanagoriyka, near Cave Fanagoriyakaya, *Fagus*, *Acer* forest, litter, 19.V.1983, leg. S. Golovatch; 1 ♀ (ZMMU), Caucasian N.R., S of Guzeripl, Pasture Abago, *Fagus*, *Abies*, *Acer* & *Betula* forest, 1700–1800 m a.s.l., 24.V.1985, leg. S. Golovatch; 1 ♀ (ZMMU), North Osetia, Kartinskiy Mt. Ridge, Fiargon River Basin, 900 m a.s.l., *Quercus* forest, 7.VII.1985, leg. K. Mikhailov; 1 ♂ (ZMMU), ABKHAZIA, Myussera N.R., 20–130 m, mixed deciduous forest: *Castanea*, *Alnus* etc., litter, 8–10.IV.1983, leg. S. Golovatch; 1 ♂, 4 ♀♀ (ZMMU), environs Lake Ritsa, 950 m a.s.l., *Fagus*, *Abies* & *Pinus* forest, 13.VIII.1986, leg. S. Golovatch; 1 ♀ (ZMMU), 1 ♀ (SMF 33805), Sukhumi, near Cave Kelasuri, litter, 11. IV. 1983, leg. S. Golovatch; 1 ♀ (ZMMU), GEORGIA, 15 km W of Adigeni,

*Abies*, *Picea*, *Acer* forest, 1500–1700 m a.s.l., litter, 14–15.V. 1983, leg. S. Golovatch; 2 ♂♂, 4 ♀♀ (ZMMU), 40 km W of Mastia, Kherkhvashi, 1250–1700 m a.s.l., *Quercus*, *Fagus*, *Acer* & *Pinus*, 21.VIII.1986, leg. S. Golovatch; 3 ♂♂, 5 ♀♀, same, 1900–2200 m a.s.l., subalpine meadow, 21.IX.1986, leg. S. Golovatch; 22 ♂♂, 8 ♀♀ (ZMMU), Algeti N.R., near Manglisi, 1400–1500 m a.s.l., *Picea*, *Fagus*, *Acer* forest, 16.V.1987, leg. S. Golovatch; 3 ♂♂, 1 ♀ (ZMMU), Surami Mt. Ridge, Pass Djvari, 850 m a.s.l., *Alnus*, *Fagus* & *Rhododendron* forest, leg. S. Golovatch; 1 ♂, 2 ♀ (SMF 33806), Pass Surami (= Rikoti), 1000 m a.s.l., *Fagus*, *Alnus*, *Castanea*, *Rhododendron* forest, litter, under stones, 14.IV. & 17.V.1983, leg. S. Golovatch; 1 ♂, 2 ♀♀ (ZMMU), Adjaria, Kintrish State Reserve, Zeraboseli, 450–600 m, deciduous forest, litter, 13. X. 1981, leg. S. Golovatch; 1 ♀ (ZMMU, TA-6036), AZERBAIJAN, Divichi (= Davachi) District, Liman Divichi, 20.IX.1979, leg. P. Dunin. *G. vivum*: 5 ♂♂, 1 ♀ (ZMMU), RUSSIA, southern Sakhalin, Kholmskiy District, Cape Slepikovskogo, 6–9.VI.1991, leg. A. Basarukin; 1 ♂, 3 ♀♀ (ZMMU), same, 6.VI.1992, leg. A. Basarukin; 1 ♂ (ZMMU), Aleksandrovsk-Sakhalinskiy District, Mgachi, 29.VI–6.VII.1982, leg. A. Basarukin.

REMARKS. A re-examination of the *G. murcidum* material from the Caucasus [see Tanasevitch, 1987, 1990] has revealed that all samples (except one, *G. orduense*, see above) actually belong to *G. vivum*; thus, *G. murcidum* is to be excluded from the Caucasian fauna. The record of *G. vivum* from Abkhazia [Kovblyuk et al., 2011] is based on the female and should be correct (a correct identification by males is virtually impossible); its records from Sakhalin [Marusik et al., 1993b] are also correct. Thus, the species indeed demonstrates a European–Far Eastern disjunction: the easternmost record in Europe is Mary-El Republic, Russia [Krasnobae & Matveev, 1993].

#### *Mecynargus foveatus* (Dahl, 1912)

MATERIAL EXAMINED. 1 ♂ (ZMMU), RUSSIA, Caucasus, Karachay-Cherkessia Republic, environs of Teberda, Teberda Nature Reserve, 2400 m a.s.l., 4–14.VIII.2007, leg. F. Martynovchenko.

REMARKS. The European *M. foveatus* was recently recorded from Karelia as new to the Russian fauna [Kamayev, 2008], and now it has unexpectedly been found in the highland Caucasus. The species is first recorded from the Caucasian fauna.

#### *Russocampus polchaninovae* Tanasevitch, 2004

MATERIAL EXAMINED. 1 ♂, 1 ♀ (ZMMU), RUSSIA, Caucasus, Karachay-Cherkessia Republic, environs of Teberda, Teberda Nature Reserve, VIII. 2007, leg. F. Martynovchenko.

REMARKS. *R. polchaninovae* was originally described from the steppes of Belgorod Area, Russia [Tanasevitch, 2004]. The species is first recorded from the Caucasian fauna.

#### *Silometopus incurvatus* (O. Pickard-Cambridge, 1873)

MATERIAL EXAMINED. 1 ♂ (ZMMU), RUSSIA, Caucasus, Karachay-Cherkessia Republic, environs of Teberda, Teberda Nature Reserve, 2800 m a.s.l., 21.IX.2008, leg. F. Martynovchenko.

REMARKS. The West-Palaeartic *S. incurvatus* is also known from the highlands of Tien-Shang and Pamir-Alai Mts, Kyrgyzstan, occurring from 1400 up to

2850 m a.s.l. [Tanasevitch, 1989]. The species is first recorded from the Caucasian fauna.

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