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The linyphiid spiders of the Altais, southern Siberia (Aranei: Linyphiidae)

Пауки-линифииды Алтая (Aranei: Linyphiidae)

A.V. Tanasevitch
А.В. Танасевич

Institute of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospect, 33, Moscow 119071, Russia. E-mail: tanasevitch@gmail.com
Институт проблем экологии и эволюции РАН, Ленинский проспект, 33, Москва 119071, Россия.

KEY WORDS: Spiders, southern Siberia, Altai, taxonomy, faunistics, new species, distribution.
КЛЮЧЕВЫЕ СЛОВА: Пауки, Южная Сибирь, Алтай, таксономия, фаунистика, новые виды, распространение.

ABSTRACT. New data on linyphiid spiders from the Altais are presented: 52 species are recorded in the area for the first time, including four described as new: *Halorates altaicus* sp.n., *Hilaira meridionalis* sp.n., *Incestophantes brevilamellus* sp.n. and *Mecynargus minutus* sp.n. An unknown female of *Anguliphantes sibiricus* (Tanasevitch, 1996) and the males of *Mughiphantes sobrioides* Tanasevitch, 2000 and *Walckenaeria katanda* Marusik, Hippa et Koponen, 1996 are described for the first time. Based on the new data, the linyphiid fauna of the Altais currently contains 210 species, obviously being transitional in character between the European and South Siberian faunas. It is dominated by widespread species (58.1%), the proportion of Siberian elements being low (23.8 %), while many typical "Siberians" and South Siberian species absent. A checklist of the Altai linyphiids and their vertical distribution are given. The widespread species dominate in all altitudinal belts, essentially prevailing (4 times) in the nival zone. Presumed endemics (3.8 %) are obviously of Siberian origins and live (with one exception) in highlands. Arcto-alpine elements occur exclusively at high altitudes and all of them reach the maximum elevations explored (3100 m a.s.l.). *Scotinotylus eutypus* (Chamberlin, 1948) in the sense of Saito & Yasuda [1988], recorded from Japan, most likely belongs to the Alps-Altai *S. antennatus* (O. Pickard-Cambridge, 1875).

РЕЗЮМЕ. Приведены новые сведения по паукам-линифиидам Алтая: 52 вида впервые отмечены в регионе, из них 4 вида описаны как новые для науки: *Halorates altaicus* sp.n., *Hilaira meridionalis* sp.n., *Incestophantes brevilamellus* sp.n. и *Mecynargus minutus* sp.n. Впервые описана самка *Anguliphantes sibiricus* (Tanasevitch, 1996), а также неизвестные самцы *Mughiphantes sobrioides* Tanasevitch, 2000 и *Walckenaeria katanda* Marusik, Hippa et Koponen, 1996. С учетом новых данных фауна линифиид региона насчитывает не менее 210 видов, имеет явный переходный характер между европейской и южносибирской фаунами, характеризуется высоким процентом широкоареальных видов (58.1%), невысокой долей сибирских элементов (23.8%), а также отсутствием многих типичных «сибиряков» и южносибирских видов. Приведен полный список пауков-линифиид Алтая и их распределение по высотным поясам. Широкоареальные виды лучше осваивают весь вертикальный профиль и доминируют во всех высотных поясах, существенно преобладая (в 4 раза) в нивальной зоне. Вероятные эндемики (3.8%) явно сибирского генезиса, обитают (за единственным исключением) в высокогорьях. Арктоальпийцы найдены исключительно в высокогорьях и поднимаются вплоть до максимальных (изученных) высот (3100 м). *Scotinotylus eutypus* (Chamberlin, 1948) в смысле Saito & Yasuda [1988], отмеченный в Японии, вероятнее всего является альпийско-алтайским *S. antennatus* (O. Pickard-Cambridge, 1875).

Introduction

The Altais, "altyn" meaning gold in Turkic languages, is accepted here, according to Gvozdetsky, Mikhailov [1987], as the westernmost mountain province of the South Siberian Mountain system. The Altais extend over the territory of Russia, Kazakhstan, China and Mongolia, the latter two parts being termed the Mongolian Altais. This paper deals with the Russian and Kazakhstan territories of the Altais, concluded by a few words about the Mongolian Altais.

The Altai territory is considered here in a little more restricted sense than by some authors. Thus, species recorded from the localities like Kosikha, Talmenka [Eskov, 1992] or Akutikha [Marusik et al., 1996] are omitted from the Altai list.

Since the publication of the first larger paper on the spiders of the Altais [Marusik et al., 1996], the Altai list which contained 95 linyphiids has been enriched by 65 species, 11 of which described directly from this mountain country [Azarkina, Trilikauskas, 2013; Ermolajev, 1937; Fomichev, Marusik, 2011; Hippa, Oksala, 1985; Levina, Mikhailov, 2004; Marusik, Logunov, 2009; Tanasevitch, 2000a, b, 2005a, 2007, 2008, 2010, 2011b, 2012, 2013; Tanasevitch et al., 2012; Trilikauskas, 2012; Volynkin et al., 2011]. The information contained in Savelyeva [1970, 1976, 1979] on the spiders from "East Kazakhstan" lacks specific localities and is thus mostly omitted. Only Savelyeva's records found and checked in the collections have been considered. The species referred to by Volkovskij [2006] and Volkovskij, Romanenko [2005a, b, c; 2010] for the Altais have been omitted as well, because they seem to be dubious and requiring confirmation.

The new data in this paper add another 52 linyphiid species to the Altai list. Four of them are described as new: *Halorates altaicus* sp.n., *Hilaira meridionalis* sp.n., *Incestophantes brevilamellus* sp.n. and *Mecynargus minutus* sp.n.

The paper first lists the most interesting records. Some of them are supplied with figures of the genitalia. At the end, a checklist of the Altai Linyphiidae and their vertical distribution patterns are given.

The following 16 species are eliminated from the Altai list, representing either synonyms or misidentifications. The valid names are on the right:

Synonyms:

Agyneta parasaxatilis Marusik, Hippa et Koponen, 1996 = *Agyneta pseudosaxatilis* Tanasevitch, 1984 [Tanasevitch, 2011b]

Lepthyphantes tes Marusik, Hippa et Koponen, 1996 = *Oryphantes geminus* (Tanasevitch, 1982) [Tanasevitch, 2011b]

Misidentifications, re-examined:

Agyneta rurestris (C.L. Koch, 1836) [Savelyeva, 1979] = *Agyneta saaristoi* Tanasevitch, 2000

Agyneta similis (Kulczyński, 1926) [Marusik et al., 1996; Levina, Mikhailov, 2004] = *Agyneta saaristoi* Tanasevitch, 2000

Agyneta subtilis (O. Pickard-Cambridge, 1863) [Savelyeva 1970 1979] = *Agyneta allosubtilis* Loksa, 1965

Bolyphantes luteolus (Blackwall, 1833) [Levina, Mikhailov, 2004] = *Bolyphantes alticeps* (Sundevall, 1832)

Hilaira tatrica Kulczyński, 1915 [Levina, Mikhailov, 2004] = *Oreoneta eskovi* Saaristo et Marusik, 2004

Lepthyphantes bipilis (Kulczyński, 1885) [Levina, Mikhailov, 2004] = *Oryphantes geminus* (Tanasevitch, 1982)

Minicia uralensis Tanasevitch, 1983 [Levina, Mikhailov, 2004] = *Silometopus uralensis* Tanasevitch, 1985

Notioscopus jamalensis Grese, 1909 [Marusik et al., 1996; Levina, Mikhailov, 2004] = *Notioscopus sibiricus* Tanasevitch, 2007

Oreoneta uralensis Saaristo et Marusik, 2004 [Saaristo, Marusik, 2004] = *Oreoneta eskovi* Saaristo et Marusik, 2004

Panamomops mengei Simon, 1926 [Marusik et al., 1996] = *Panamomops tauricornis* (Simon, 1881)

Porrhomma montanum Jackson, 1913 [Marusik et al., 1996; Levina, Mikhailov, 2004] = *Porrhomma pygmaeum* (Blackwall, 1834)

Saloca diceros (O. Pickard-Cambridge, 1871) [Levina, Mikhailov, 2004] = *Horcotes strandi* (Sytschevskaya, 1935)

Thyreosthenius biovatus (O. Pickard-Cambridge, 1875) [Marusik et al., 1996; Levina, Mikhailov, 2004] = *Thyreosthenius parasiticus* (Westring, 1851)

Trichopterna mengei (Simon, 1884) [Levina, Mikhailov, 2004] = *Pelecopsis palmgreni* Marusik et Esyunin, 1998

Material and methods

Besides the spider material collected by Sergei Golovatch and Andrei Tanasevitch (Moscow) from the Altais in 1997, this paper is also based on extensive spider collections kindly offered for study mostly by Galina Azarkina (Novosibirsk). Spiders were also taken by Andrei & Roman Dudko, Andrei Fedotov, Nadezhda Levina, Dmitry Logunov, Oleg Lyakhov, Ilia Lyubechansky, Sergei Ovtchinnikov, Alexander Ryvkin, Veryaskina and Vadim Zinchenko. All available material, upon which the papers Marusik et al. [1996] and Levina, Mikhailov [2004] were based, kept at the Zoological Museum, University of Turku, Finland (ZMT) and the Zoological Museum, Moscow State University (ZMMU), have been re-examined.

Type and non-type material is shared between the collections of the ZMMU and the Institute of Systematics and Ecology of Animals, Novosibirsk (ISEA); some more samples used here are also housed in the Muséum d'histoire naturelle, Geneva, Switzerland (MHNG) and in the private collection of Andrei Tanasevitch (CAT).

Distribution patterns of linyphiids are mainly given, based on the latest publications of Tanasevitch [2005b, 2006, 2008, etc].

In the descriptions, the chaetotaxy of Erigoninae is given in a formula (e.g., 2.2.1.1) which refers to the number of dorsal spines on tibiae I–IV. For Micronetinae, the chaetotaxy is presented in a different formula, e.g., Ti I: 2-1-1-2(1), which means that tibia I has two dorsal spines, one pro-, one retrolateral spine, and two or one ventral spine (the apical spines are disregarded). The sequence of leg segment measurements is as follows: femur + patella + tibia + metatarsus + tarsus. All measurements are in mm. All scale lines in the figures correspond to 0.1 mm, unless indicated otherwise.

The terminology of genitalic structures in Micronetinae follows that of Saaristo, Tanasevitch [1996], for Erigoninae mainly that of Crosby, Bishop [1928], Hormiga [2000] and Saaristo, Marusik [2004].

The following abbreviations are used in the text and figures: ARP — anterior radical process; AT — anterior tooth; DA — dorsal apophysis; DEP — dorsal epigynal plate; DPS — distal part of scapus; DSA — distal suprategular apophysis; E — embolus; ED — embolic division; EM — embolic membrane; EP — embolus proper; Fe — femur; L — lamella characteristica; LL — lateral lobes; M — mastidion; MM — median membrane; MT– median tooth; Mt — metatarsus; MsT — mesal tooth; N.R. — Nature Reserve; P — proscapus (= proscape); PMP — posterior median plate; PrT — protegulum; PS — pseudoscapus; PT — posterior tooth; R — receptacula; Ra — radix; RP — radical process; St — stretcher; TA — terminal apophysis; Th — thumb (= lateral extension); Ti — tibia; Tm I — position of metatarsal trichobothrium; VA — ventral apophysis; VEP — ventral epigynal plate.

The catalogue below provides references only concerning the Altai fauna.

Results

Acartauchenius scurrilis (O. Pickard-Cambridge, 1872)

MATERIAL. 1 ♂ (CAT), KAZAKHSTAN, Eastern Kazakhstan Area, Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m, 10.V.1999, leg. R. Dudko, V. Zinchenko & I. Lyubechansky.

PATTERN. European – Ancient Mediterranean.

REMARKS. The species is new to the Altai fauna.

Agyneta allosubtilis Loksa, 1965

1970 *Agyneta subtilis*. — Savelyeva: 83, misidentification, re-examined.
1979 *A. subtilis*. — Savelyeva: 144 (reference).
1985 *A. allosubtilis*. — Hippa, Oksala: 285.
1996 *A. allosubtilis*. — Marusik et al.: 32.
2004 *A. allosubtilis*. — Levina, Mikhailov: 44 (reference).

MATERIAL. 4 ♂♂, 1 ♀ (CAT), RUSSIA, Charysh District, Bashchelakskiy Mt. Ridge, 30 km NEE of Sentelek, near Zagrikha , 1700 m, spruce forest near the top, 27.VI.2000, leg. G. Azarkina; 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, Kholzun Mt. Ridge, upper reaches of Bannaya River, 1300–1600 m, forest, pitfall traps, 12–14.VI.1999, leg. A. & R. Dudko; 1 ♂ (ZMMU), Ust'-Kamenogorsk, Sogra, date & collector unknown.

RECORDS FROM THE ALTAIS. RUSSIA: Katanda [Hippa, Oksala, 1985], Kuragan [Marusik et al., 1996]; KAZAKHSTAN: Sogra [Savelyeva 1970, 1979, as *Agyneta subtilis* (O. Pickard-Cambridge, 1863)].

PATTERN. Siberian-Nearctic.

Agyneta conigera (O. Pickard-Cambridge, 1863)

2013 *Agyneta conigera.* — Azarkina, Trilikauskas: 57.

MATERIAL. 1 ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Ust'-Kamenogorsk, Sogra, 19.IX.1970, collector unknown.

RECORDS FROM THE ALTAIS. RUSSIA: Artybash and Iogach [Azarkina, Trilikauskas, 2013].

PATTERN. Palaearctic.

Agyneta fuscipalpa (C.L. Koch, 1836)

MATERIAL. 1 ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area Ust'-Kamenogorsk, Sogra, 19.IX.1970, collector unknown.

REMARKS. The species is new to the Altai fauna.

RANGE. West Palaearctic.

Agyneta saaristoi Tanasevitch, 2000

1979 *Meioneta rurestris*. — Savelyeva: 142, misidentification, re-examined.
1996 *Agyneta similis*. — Marusik et al.: 32, re-examined.
2004 *A. similis*. — Levina, Mikhailov: 44, reference.
2004 *A. saaristoi*. — Levina, Mikhailov: 44, re-examined.
2011 *A. saaristoi*. — Volynkin et al.: 172.
2012 *M. saaristoi*. — Trilikauskas: 227.

MATERIAL. 1 ♂, 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Ust'-Kamenogorsk, Sogra, 19.IX.1970, collector unknown.

RECORDS FROM THE ALTAIS. RUSSIA: Bertkem [Marusik et al., 1996, as *Agyneta similis* Kulczyński, 1926]; Gorno-Altaisk, Mt. Baltyrgan [Levina, Mikhailov, 2004]; Tigirek N.R. [Volynkin et al., 2011]; KAZAKHSTAN, Ust'-Kamenogorsk [Savelyeva, 1979, as *Meioneta rurestris* (C.L. Koch, 1836)].

PATTERN. Central Palaearctic.

Agyphantes sajanensis (Eskov et Marusik, 1994)

MATERIAL. 4 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. This is the westernmost locality of the species' known distribution. New to the Altai fauna.

PATTERN. South Siberian.

Anguliphantes cerinus (L. Koch, 1879)
Figs 1–7.

1986 *Lepthyphantes cerinus*. — Tanasevitch: 341.
1996 *L. cerinus*. — Marusik et al.: 33.
2004 *L. cerinus*. — Levina, Mikhailov: 45, re-examined.
2011 *Anguliphantes cerinus*. — Volynkin et al.: 172.
2012 *A. cerinus*. — Trilikauskas: 227.
2013 *A. cerinus*. — Azarkina, Trilikauskas: 57.

MATERIAL. 2 ♂♂, 30 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Populus* forest with *Pinus sibirica*, 500–800 m, 7.VIII.1997, leg. A. Tanasevitch; 1 ♀ (CAT), Korbu waterfall, *Picea obovata* & *Abies sibirica* & *Pinus sibirica* taiga forest, litter, 600 m, 17.VII.1997, leg. S. Golovatch; 12 ♀♀ (CAT), near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, Kholzun Mt. Ridge, upper reaches of Bannaya River, 1300–1600 m, forest, pitfall traps, 12–14.VI.1999, leg. A. & R. Dudko.

REMARKS. The species is characterized by a variable shape of the proscape (cf. Figs 3, 4, 7) and its sunk base (see Fig. 5).

RECORDS FROM THE ALTAIS. RUSSIA: Artybash [Tanasevitch, 1986]; Gorno-Altaisk [Marusik et al., 1996; Levina, Mikhailov, 2004]; Tigirek N.R. [Volynkin et al., 2011]; Lake Teletskoye [Trilikauskas, 2012]; Uskuch [Azarkina, Trilikauskas, 2013].

PATTERN. Siberian.

Anguliphantes sibiricus (Tanasevitch, 1986)
Figs 8–10.

1986 *Lepthyphantes sibiricus* Tanasevitch: 160, figs 79–81, ♂ **only!**

2004 *L. sibiricus*. — Levina, Mikhailov: 45, re-examined.

MATERIAL. 1 ♂, 13 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–7.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♀♀ (CAT), near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. In the original description of *Lepthyphantes sibiricus* [Tanasevitch, 1986], the female of *L. flexilis* Tanasevitch, 1986 (now in *Improphantes* Saaristo et Tanasevitch, 1996) was erroneously described as corresponding to the male of *L. sibiricus*. Later, this mistake was corrected by Eskov [1988: 105], but the female of *A. sibiricus* is still unknown.

DESCRIPTION. Female (from Artybash). Total length 2.13. Carapace 1.00 long, 0.80 wide, pale brown. Chelicerae 0.40 long. Legs pale brown, without bands. Leg I, 3.67 long (0.98 + 0.30 + 0.88 + 0.88 + 0.63), IV, 4.49 long (1.08 + 0.88 + 1.00 + 0.93 + 0.60). Chaetotaxy. Ti I: 2-1-1-0, II: 2-0-1-0, III–IV: 2-0-0-0; Mt I–III: 1-0-0-0. Tm I, 0.20. Abdomen 1.33 long, 0.90 wide, grey. Epigyne as in Figs 9 & 10.

REMARKS. This is the first description of the female of *A. sibiricus*.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Baltyrgan [Levina, Mikhailov, 2004].

PATTERN. West & South Siberian.

Araeoncus crassiceps (Westring, 1861)
Figs 11–16, 19–22, 25–27.

MATERIAL. 1 ♀ (ZMMU), RUSSIA, S macroslope of Terektinskiy Mt. Ridge, upper reaches of Kastakhanka River, 2000–2400 m, mountain tundra, 18–20.VI.1999, leg. A. & R. Dudko; 1 ♂, 1 ♀, (ISEA) N macroslope of Katunskiy Mt. Ridge, 12–15 km S of Multa, 2300–2800 m, mountain tundra, 23–24.VI.1999, leg. A. & R. Dudko; 2 ♂♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Kholzun Mt. Ridge, upper reaches of left tributary of Bannaya River, 2000–2250 m, mountain tundra, 13–14.VI.1999, leg. A. & R. Dudko; 2 ♂, 4 ♀♀, (ZMMU), Ivanovskiy Mt. Ridge, 17 km S of Leninogorsk, Mt. Serzhinskiy Belok, 1800–2000 m, alpine, 8.VIII.1997, leg. R. Dudko & V. Zinchenko.

COMPARATIVE MATERIAL EXAMINED. *Araeoncus crassiceps*: 1 ♂ (ZMMU), Tuva, near Toora-Khem (52°27.909'N, 96°7.237'E), 3.VI.1992, leg. A. Ryvkin; 30 ♂♂ & ♀♀ (ZMMU), Krasnoyarsk Area, Yenisei River Middle flow, Mirnoye Field Station, summer, 1978, leg. K. Eskov; 1 ♂ (ZMMU), Krasnoyarsk Area, Tsentralno-Sibirskiy N.R., Cordon Yuzhnyi, 4.X.1999, leg. I. Ushakov; 5 ♂♂ (ZMMU), Tyumen Area, Khanty-Mansi Autonomous Region, Surgut District, near S border of buffer area of Yuganskiy N.R., Lake Koimlor (Krimlor), 2.IX.2001, leg. A. Ryvkin. *Araeoncus caucasicus* Tanasevitch, 1987: Type material from ZMMU; 3 ♂♂, 2 ♀♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Zaisan Distr., Saur Mt. Ridge, Karaungur River Valley (Kenderlyk River Basin), riverside *Populus* forest, 6–22.VI.1990, leg. K. Eskov.

REMARKS. The males from the Altai population differ from the European or other Siberian conspecifics by the shape of the male carapace (cf. Figs 11 & 14) and a deeper notch in the distal part of the palpal tibia (shown by arrows in Figs 12, 13, 15, 16 & 19–22). These two peculiar characters are stable and present in all Altai specimens examined. The females have no distinguishing features and correspond well to the females from the other geographical populations. At the same time, two males of *A. crassiceps* have been noted in Kazakhstan which have the same deep notch in the palpal tibia as do the Altai specimens, but the cephalic part of the male carapace is elongated, being very similar to that in *A. caucasicus*, about as in Fig. 17. This seems to be another piece of evidence that the differences in the shape of the male carapace and palpal tibia are just variations. These two males are as follows: 1 ♂ (ZMMU), KAZAKHSTAN, Zhambyl (= Dzhambul) Area, Moiynkum (= Moyunkum)] Distr., Moiynkum (= Moyunkum) Desert, 1.6 km NE of Kumozek, Satiya River riverside, ca 44°27′53.2″N, 72°23′40.9″E, ca 313 m, 29.VI.1989, leg. A. Zyuzin, Ch. Tarabaev, A. Fedorov; 1 ♂ (ZMMU), Kyzylorda (= Kzyl-Orda) Area, Zhanakorgan (= Yanykurgan) Distr., SW slope of Karatau Mt. Range, 35 km NNE of Zhanakorgan (= Yanykurgan), ca 44°12′15.0″N, 67°28′13.0″E, ca 400 m, 15.VI.1989, leg. A. Zyuzin, Ch. Tarabaev, A. Fedorov.

The species is new to the Altai fauna.

PATTERN. European-Siberian.

Araeoncus vorkutensis Tanasevitch, 1984

2004 *Araeoncus vorkutensis*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 21 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch; 24 ♂♂, 31 ♀♀ (CAT), near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.; 1 ♂, 5 ♀♀ (CAT), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas, ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 2 ♂♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, Gromotukha River, 1400–1600 m, *Larix* sparse forest, 3–5.VI.1996, leg. R. Dudko.; 1 ♀ (CAT), W of Lake Markakol', Urunkhayka, 1500–1700 m, 16.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), upper reaches of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 4 ♀♀ (ZMMU), Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m, 10.V.1999, leg. R. Dudko, V. Zinchenko & I. Lyubechansky.

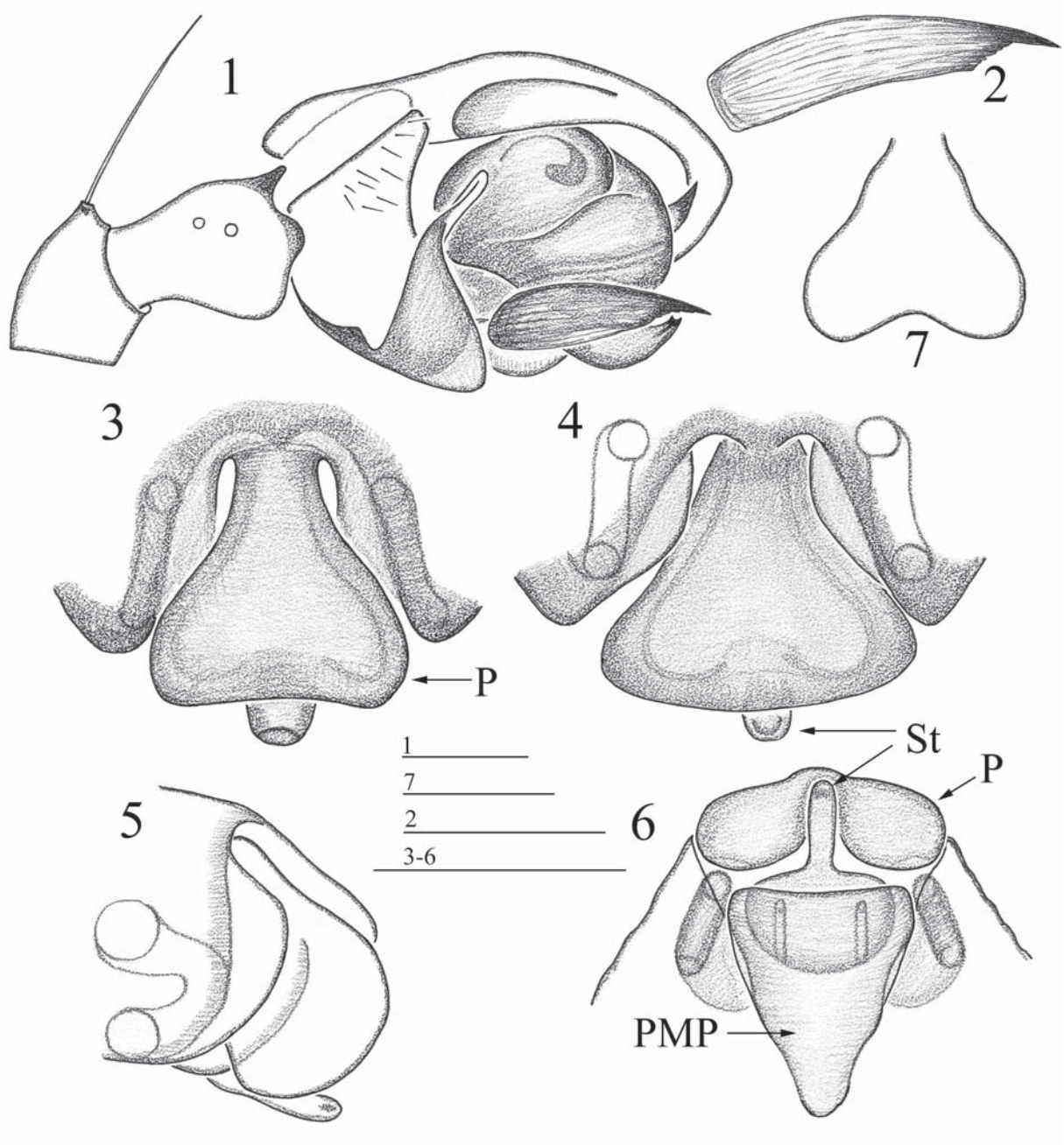
RECORDS FROM THE ALTAIS. RUSSIA: Mt. Baltyrgan [Levina, Mikhailov, 2004].

PATTERN. Siberian.

Bathylinyphia major (Kulczyński, 1885)

2013 *Bathylinyphia major*. — Azarkina, Trilikauskas: 57.

MATERIAL. 1 ♀ (CAT), RUSSIA, 2 km E of Aktash, 26.VI.1996, leg. A. & R. Dudko; 1 ♀ (ZMMU), Listvyaga Mt.



Figs 1–7. *Anguliphantes cerinus* (L. Koch, 1879), specimens from Artybash, Altais: 1 — right palp; 2 — lamella characteristica; 3–6 — epigyne, 3, 4 — ventral view, 5 — lateral view, 6 — dorsal view; 7 — proscape separately, ventral view.

Рис. 1–7. Детали строения *Anguliphantes cerinus* (L. Koch, 1879), экземпляр из Артыбаша, Алтай: 1 — правая пальпа; 2 — ламелла; 3–6 — эпигина, 3, 4 вид снизу, 5 — вид сбоку, 6 — вид сверху; 7 — проскапус (отдельно), вид снизу.

Ridge, 12 km SSE of Mt. Tesninskiy Belok, Seredchikha River Valley, 900–1200 m, mixed forest, 26.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), Charysh District, environs of Sentelek, 600 m, 13.VII.–2.VIII.1999, leg. G. Azarkina; 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Katunskiy Mt. Ridge, 5 km SE of Rakhmanovskiye Klyuchi, 2100–2500 m, alpine belt, 28.IX.1997, leg. R. Dudko & V. Zinchenko.

ADDITIONAL MATERIAL EXAMINED. 1 ♀ (CAT), RUSSIA, Kemerovo Area, Gornaya Shoriya, 10 km N of Sheregesh, Mt. Pustag, timberline, 900 m, 21–27.VI.1999, leg. D. Lomakin (**new locality**).

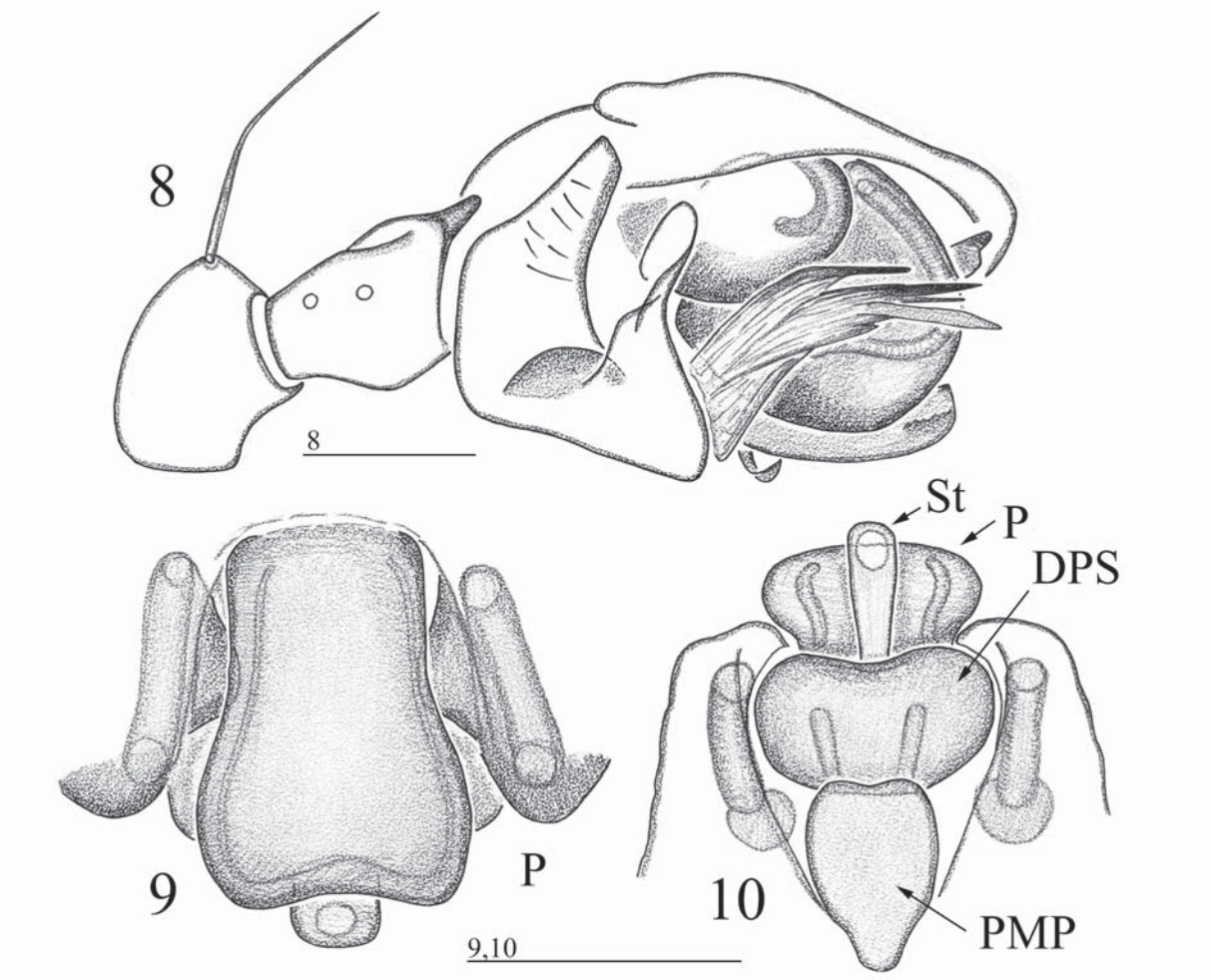
RECORDS FROM THE ALTAIS. RUSSIA: Sentelek [Azarkina, Trilikauskas, 2013].

PATTERN. East Palaearctic.

Bathyphantes reprobus (Kulczyński, 1916)

2004 *Bathyphantes* sp. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Katunskiy Mt. Ridge, Rakhmanovskiye Klyuchi, 1900 m,



Figs 8–10. *Anguliphantes sibiricus* (Tanasevitch, 1986), specimens from Artybash, Altais: 8 — right palp; 9, 10 — epigyne, ventral and dorsal views, respectively.

Рис. 8–10. Детали строения *Anguliphantes sibiricus* (Tanasevitch, 1986), экземпляр из Артыбаша, Алтай: 8 — правая пальпа; 9, 10 — эпигина, вид снизу и сверху, соответственно.

forest, 24.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), W of Lake Markakol', Urunkhayka, 1500 m, pitfall traps, 21.VI.–7.VII.1997, leg. R. Dudko & V. Zinchenko.

RECORDS FROM THE ALTAIS. RUSSIA: Katunskiy N.R. [Levina, Mikhailov, 2004, as *Bathyphantes* sp.].

REMARKS. The species is new to the Altai fauna.

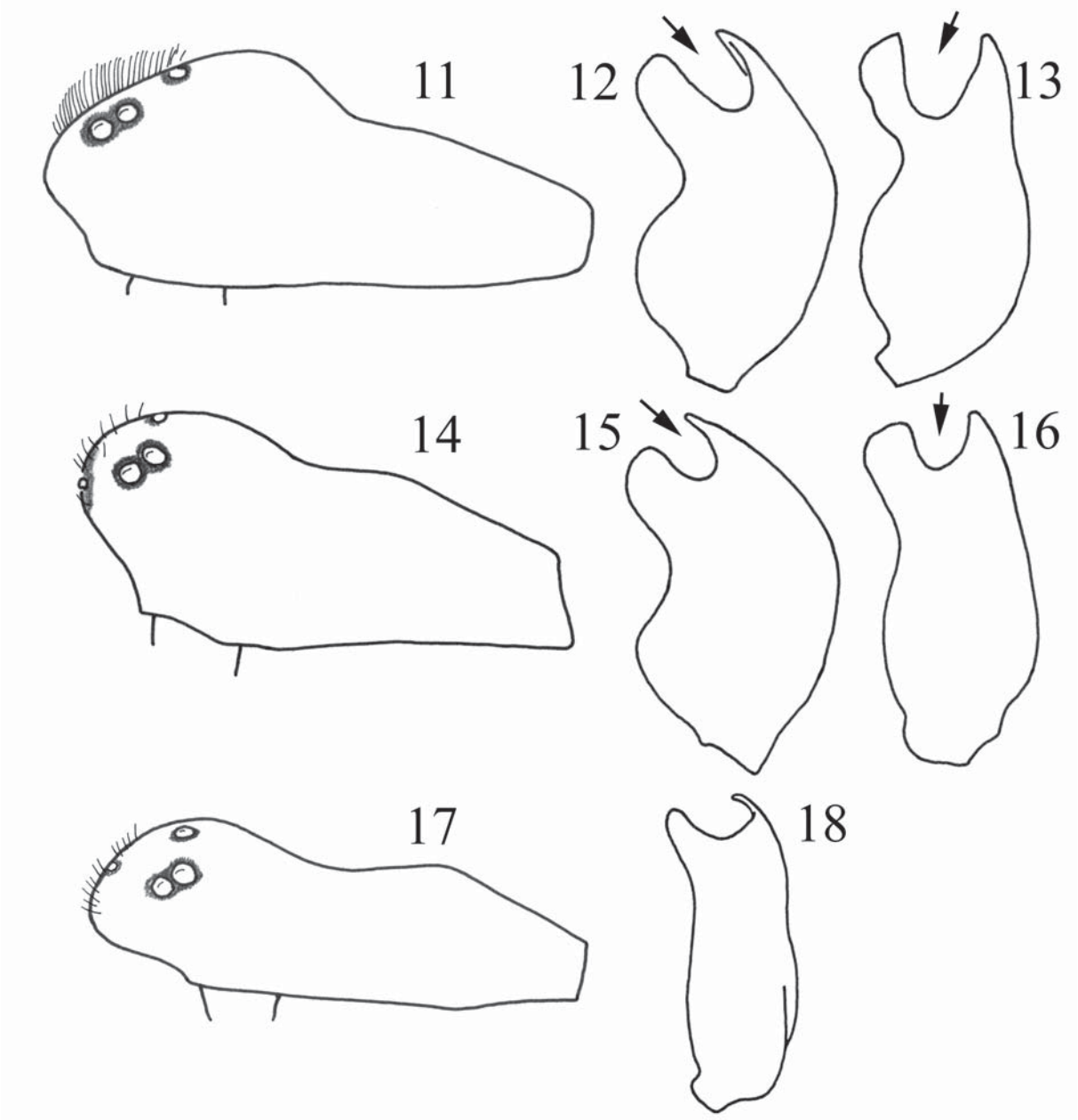
PATTERN. Fennoscandian-Siberian-Nearctic.

Bolyphantes distichus (Tanasevitch, 1986)
Figs 28–32, 35.

2004 *Bolyphantes* sp. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 2 ♂♂, 7 ♀♀ (CAT), RUSSIA, Altyntu Mt. Ridge, Cordon Obogo, 500–1500 m, June–July 1999, collector unknown; 1 ♂ (ZMMU), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 1 ♀ (ZMMU), Charysh District, Tigiretskiy Mt. Ridge, Mt. Korolevskiy Belok, 1800–2300 m, 20.VII.1999, leg. G. Azarkina; 1 ♀ (ZMMU), Charysh District, Bashchelakskiy Mt. Ridge, 30 km NEE of Sentelek, near Zagrikha, 1700 m, spruce forest near the top, 27.VI.2000, leg. G. Azarkina; 2 ♀♀ (CAT), 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin; 1 ♀ (CAT), Katunskiy Mt. Ridge, Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.5.VIII.1994, leg. S. Golovatch & A. Ryvkin; 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Kurchyumskiy Mt. Ridge, 10 km WSW of Aksubas, pass near the upper reaches of Topolyovka River, 2500 m, 4.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

ADDITIONAL MATERIAL EXAMINED. *Bolyphantes distichus*: 1 ♂ (CAT), RUSSIA, Khakassia, Kuznetsky Alatau Mts., 20 km NE of Balyksu, right affluent of Kainzas River, 1000 m, forest, 22–23.V.1997, leg. R. Dudko; 1 ♀ (CAT), Abakanskiy Mt. Ridge, Choochek Mt. Ridge, SSE of Mrassu, mountain tundra, 1600–1800 m, 7–19.VII.1999, leg. D. Lomakin (**new localities**); 1 ♀ (CAT), Buryatiya, Kabansk Distr., upper reaches of Bolshoy Mamat River, from *Abies*, 5.VII.1980, leg. S. Danilov. *B. distichoides*: 1 ♀ (ZMMU, paratype), Altai, 10 km S of Leninogorsk, 30–31.V.1996, leg. R. Dudko.



Figs 11–18. *Araeoncus crassiceps* (Westring, 1861) (11–16) & *A. caucasicus* Tanasevitch, 1987 (17, 18): 11, 14, 17 — male carapace; 12, 13, 15, 16, 18 — left palpal tibia, dorsal view. 11–13 — specimen from Bannaya River, Altais; 14–16 — specimen from Mirnoye, Yenisei; 17, 18 — specimen from Saur Mt. Ridge, E-Kazakhstan. Not to scale.

Рис. 11–18. *Araeoncus crassiceps* (Westring, 1861) (11–16) и *A. caucasicus* Tanasevitch, 1987 (17, 18): 11, 14, 17 — карапакс самца; 12, 13, 15, 16, 18 — голень левой пальпы, вид сверху. 11–13 — экземпляр с р. Банная, Алтай; 14–16 — экземпляр из Мирного, Енисей; 17, 18 — экземпляр с хр. Саур, Вост. Казахстан. Не в масштабе.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaisk, Baltyrgan Mt. [Levina, Mikhailov, 2004, as *Bolyphantes* sp.]

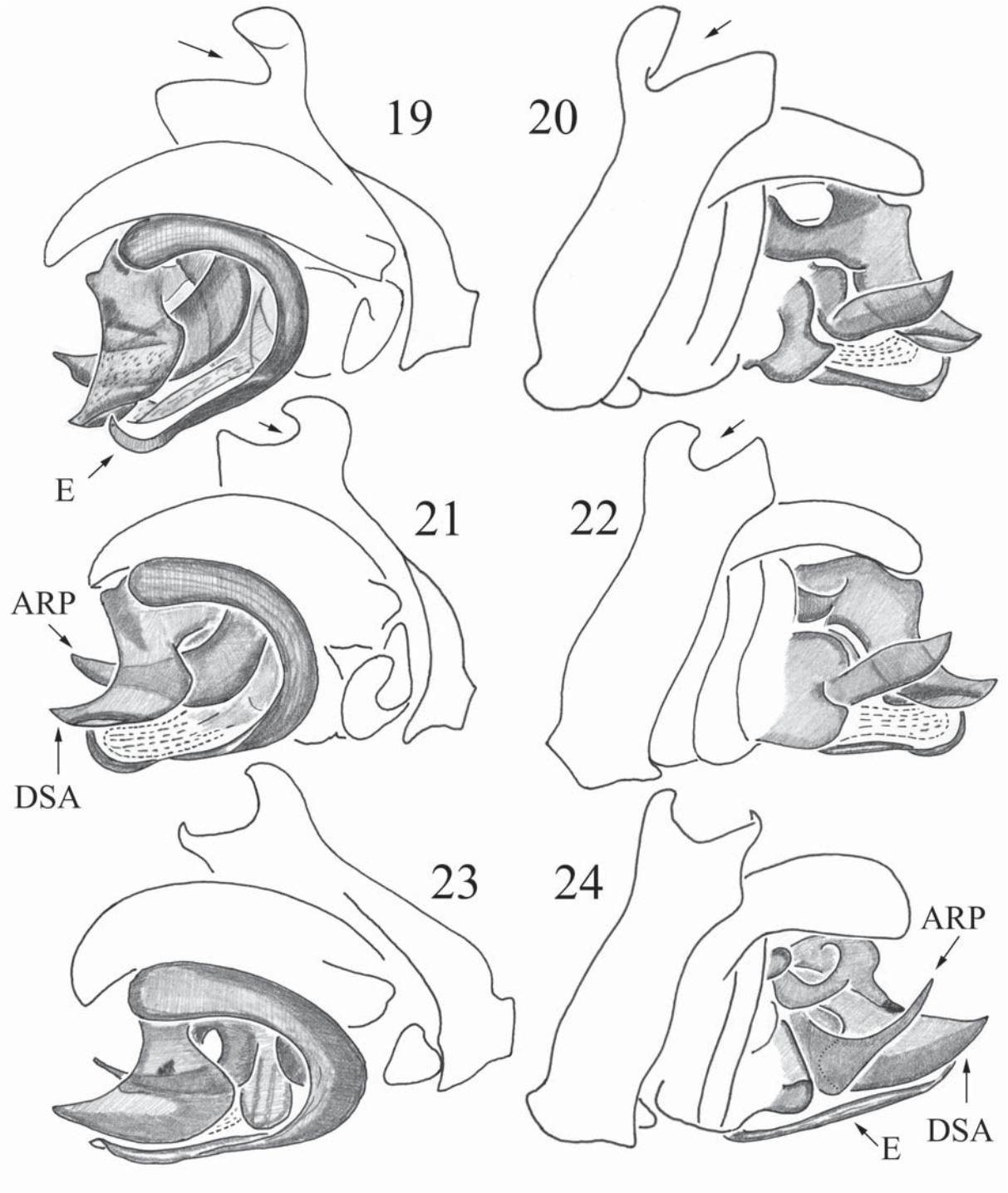
REMARKS. The species is very similar to the Altai *B. distichoides* Tanasevitch, 2000, known from females only [Tanasevitch, 2000b], being well distinguishable by the longer base of the epigyne, as well as by the shape of the posterior median plate (cf. Figs 29–32 & 33, 34). The species is new to the Altai fauna.

PATTERN. South Siberian.

Centromerus levitarsis (Simon, 1884)

2004 *Diplostyla concolor*. — Levina, Mikhailov: 44, re-examined, misidentification, partly.

MATERIAL. 1 ♀ (ZMMU), RUSSIA, environs of Gorno-Altaisk, *Betula* forest, swampy stream, in grass, 400 m, 26.VIII.2001, leg. N. Levina.



Figs 19–24. *Araeoncus crassiceps* (Westring, 1861) (19–22) & *A. caucasicus* Tanasevitch, 1987 (23, 24): 19–24 — left palp. 19, 20 — specimen from Bannaya River, Altais; 21, 22 — specimen from Mirnoye, Yenisei; 23, 24 — specimen from Saur Mt. Ridge, E-Kazakhstan.

Рис. 19–24. *Araeoncus crassiceps* (Westring, 1861) (19–22) и *A. caucasicus* Tanasevitch, 1987 (23, 24): 19–24 — левая пальпа; 19, 20 — экземпляр с р. Банная, Алтай; 21, 22 — экземпляр из Мирного, Енисей; 23, 24 — экземпляр с хр. Саур, Вост. Казахстан.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaisk [Levina, Mikhailov, 2004, as *Diplostyla concolor*, part].

REMARKS. The species is new to the Altai fauna.

PATTERN. European-Siberian.

Ceraticelus orientalis Eskov, 1987

2004 *Ceraticelus orientalis*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♂, 4 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., upper reaches of Chiri River, near Lake Chiri,

Figs 25–27. Epigyne of *Araeoncus crassiceps* (Westring, 1861), ventral view: 25, 26 — specimen from Mt. Serzhinskiy Belok, Altais; 26 — specimen from Mirnoye, Yenisei.

Рис. 25–27. Эпигина *Araeoncus crassiceps* (Westring, 1861), вид снизу: 25, 26 — экземпляр с г. Сержинский Белок, Алтай; 26 — экземпляр из Мирного, Енисей.

stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaysk [Levina, Mikhailov, 2004].

REMARKS. Gorno-Altaysk is the westernmost locality of the species' known distribution.

PATTERN. South Siberian – Far Eastern.

Ceratinella brevipes (Westring, 1851)

MATERIAL. 3 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., upper reaches of Chiri River, *Picea obovata* forest, litter, moss, 1350 m, 18.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (ZMMU), Altyntu Mt. Ridge, Cordon Obogo, 500–1500 m, June-July 1999, collector unknown.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Ceratinella brevis (Wider, 1834)

2004 *Ceratinella brevis*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♂ (CAT), RUSSIA, near Saydyp, 300–400 m, 25.VIII.1998, leg. Veryaskina; 3 ♀♀ (CAT), Lake Teletskoye, Altayskiy N.R., near Artybash, *Populus* forest with *Pinus sibirica*, 500–800 m, 7.VIII.1997, leg. A. Tanasevitch.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaysk [Levina, Mikhailov, 2004].

REMARKS. In contrast to some other South Siberian or Far Eastern populations, the Altai specimens of C. brevis show a dorsal abdominal scutum in both sexes. [see Tanasevitch, 2006, 2008], the Altai specimens of *C. brevis* have a dorsal abdominal scutum in both sexes.

PATTERN. Palaearctic.

Ceratinella scabrosa (O. Pickard-Cambridge, 1871)

1996 *C. scabrosa*. — Marusik et al.: 32, locality No 70, re-examined.

MATERIAL. 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Altyntu Mt. Ridge, Cordon Obogo, 500–1500 m, June–July 1999, collector unknown; 1 ♂ (CAT), ca 10 km SW of Leninogorsk, 600–1400 m, 30.V.1996, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan [Marusik et al., 1996], the record *C. scabrosa* for Katun (op.cit., locality No 109) actually refers to *C. wideri*.

PATTERN. European-Siberian.

Ceratinella wideri (Thorell, 1871)

1996 *Ceratinella scabrosa*. — Marusik et al.: 32, locality No 109, misidentification, re-examined.

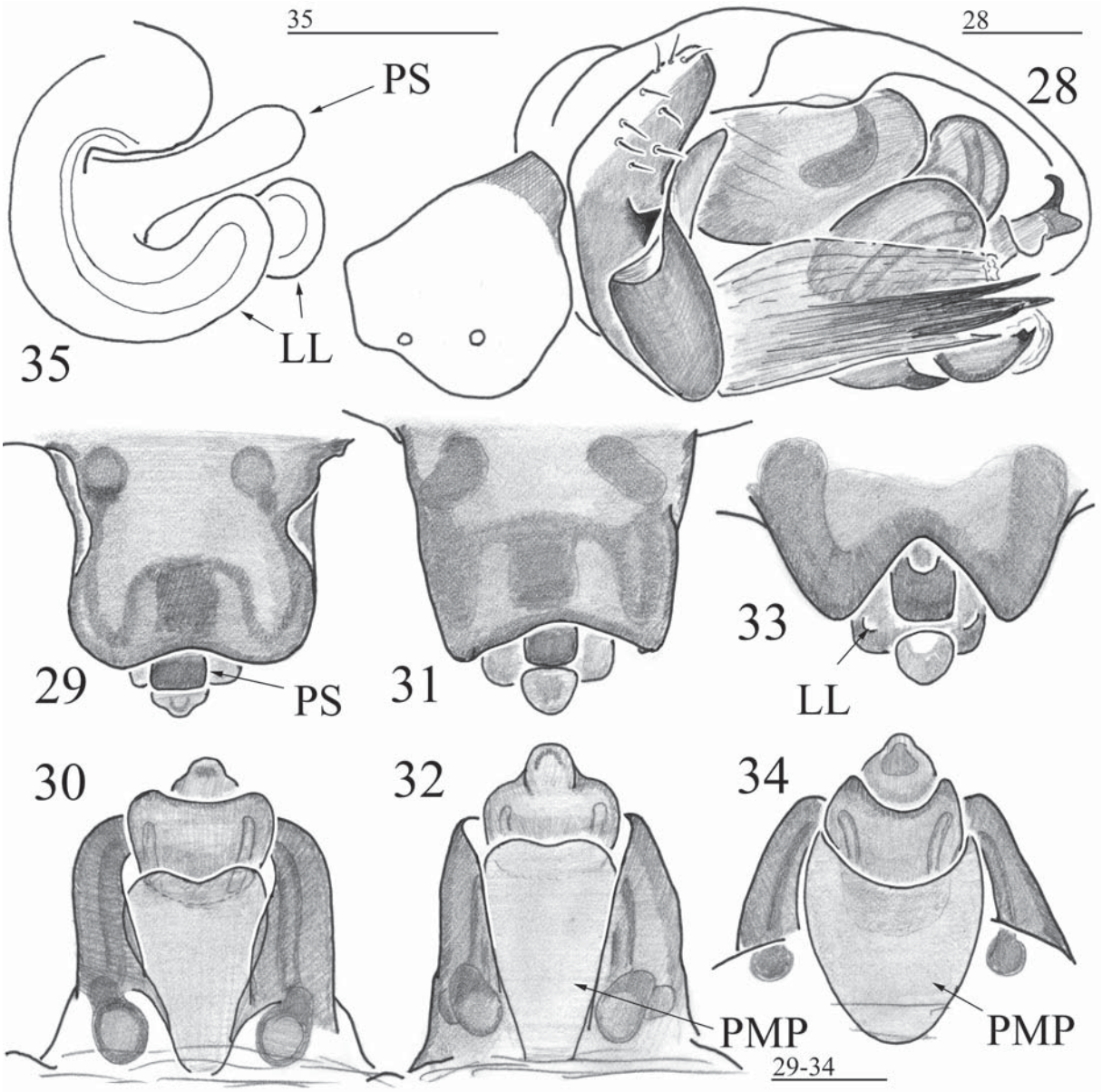
1996 *C. wideri*. — Marusik et al.: 32, re-examined.

2004 *C. scabrosa*. — Levina, Mikhailov: 44, reference.

2004 *C. wideri*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♂, 2 ♀♀ (CAT), RUSSIA, Teletskoye Lake, Altayskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch; 5 ♂♂ (CAT), upper reaches of Chiri River, *Picea obovata* forest, litter, moss, 1350 m, 18.VII.1997, leg. leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ust'-Kan, upper reaches of Charysh River, 1400 m, *Larix*, *Picea* forest, litter, rotten wood, 27.VII.1994, leg. S. Golovatch & A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Bertkem, Katanda [Marusik et al., 1996] & Katun [op.cit.,



Figs 28–35. *Bolyphantes distichus* (Tanasevitch, 1986) (28–32, 35) & *B. distichoides* Tanasevitch, 2000 (33, 34): 28 — right palp; 29–34 — epigyne, 29, 31, 33 — ventral view, 30, 32, 34 — dorsal view; 35 — distal part of scape, lateral view; 28 — specimen from Yabogan, Altais; 29, 30, 35 — specimen from Kabansk Distr., Buryatiya; 30, 31 — Stolby N.R., Krasnoyarsk Area; 33, 34 — paratype from Leninogorsk, Altais.

Рис. 28–35. *Bolyphantes distichus* (Tanasevitch, 1986) (28–32, 35) и *B. distichoides* Tanasevitch, 2000 (33, 34): 28 — правая пальпа; 29–34 — эпигина, 29, 31, 33– вид снизу, 30, 32, 34 — вид сверху; 35 — дистальная часть скапуса, вид сбоку. 28 — экземпляр из Ябогана, Алтай; 29, 30, 35 — экземпляр из Кабанского р-на, Бурятия; 30, 31 — зап. «Столбы», Красноярский край; 33, 34 — паратип из Лениногорска, Алтай.

as *C. scabrosa*], Gorno-Altaysk & Katunskiy N.R. [Levina, Mikhailov, 2004, as *C. scabrosa*, in part].

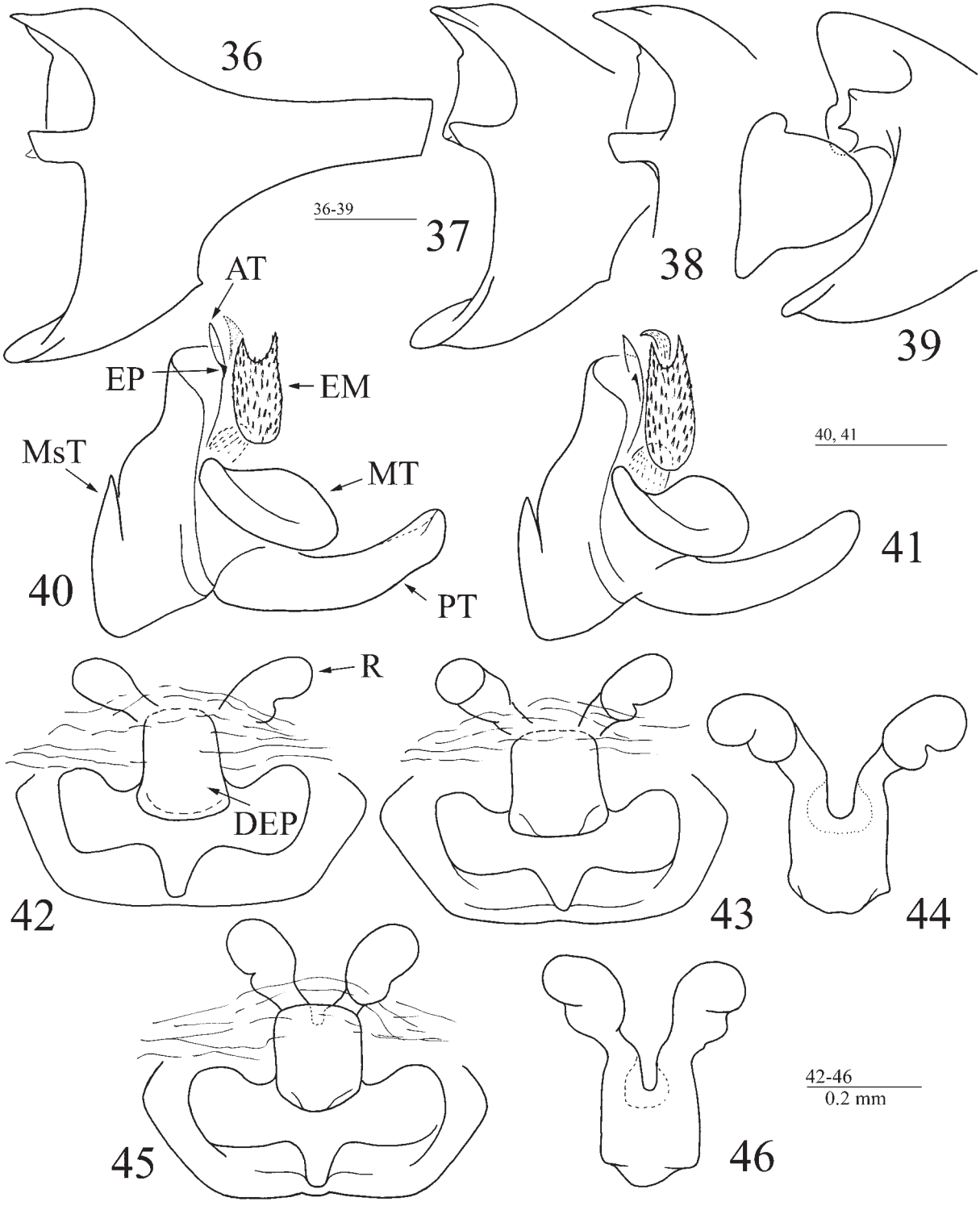
PATTERN. Palaearctic.

Dicymbium facetum (L. Koch, 1879)

1996 *Dicymbium facetum*. — Marusik et al.: 32.

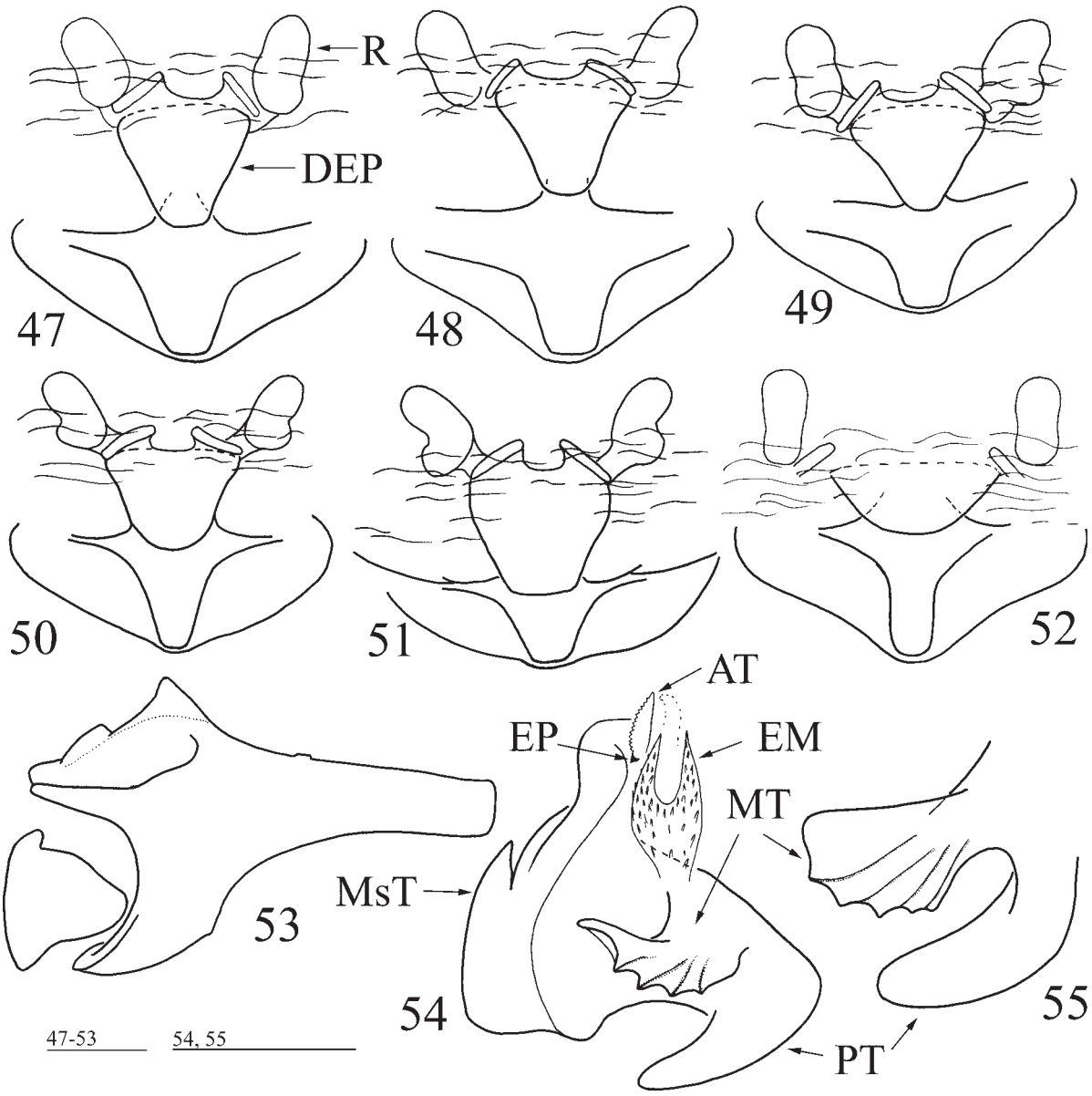
2004 *D. facetum*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♀ (CAT), RUSSIA, Teletskoye Lake, Altayskiy N.R., upper reaches of Chiri River, *Picea obovata* forest, litter, moss, 1350 m, 18.VII.1997, leg. A. Tanasevitch & S. Golovatch; 3 ♀♀ (ZMMU), 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko; 1 ♂ (CAT), Katunskiy Mt. Ridge, Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin; 1 ♀ (CAT), upper reaches of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 6 ♀♀ (ZMMU), Kholzun Mt. Ridge, upper reaches of left tributary of Bannaya River, 2000–2500 m, mountain tundra, 13–14.VI.1999, leg. A. & R. Dudko; 1 ♀ (ZMMU), Katunskiy Mt. Ridge, 5 km SE of Rakhmanovskiye Klyuchi, 2100–2500 m, alpine, 28.VI.1997, leg. R.



Figs 36–46. *Erigone arctica maritima* Kulczyński, 1902, specimens from Mt. Chyornaya, Altais: 36–39 — male left palp, retrolateral view, different aspects; 40, 41 — embolic division, different aspects; 42, 43, 45 — vulvae, dorsal view; 44, 46 — posterior median plate & receptacula, dorsal view.

Рис. 36–46. *Erigone arctica maritima* Kulczyński, 1902, экземпляры с г. Черная, Алтай: 36–39 — левая пальпа самца, ретролатерально, различный аспект; 40, 41 — эмболюсный отдел, различный аспект; 42, 43, 45 — эндогина, вид сверху; 44, 46 — задняя медиальная пластинка и рецептакулы, вид сверху.



Figs 47–55. *Erigone cristatopalpus* Simon, 1884 (47–50, 53–55) & *E. tenuimana* Simon, 1884 (52): 47–52 — vulvae, dorsal view; 53 — male left palpal tibia, retrolateral view; 54 — embolic division; 55 — median & posterior tooth; 47–49 — specimens from Tigiretskiy Mt. Ridge, Altais; 50, 51 — specimens from Ermakovo, West Sayan Mts.; 52 — specimens from Mt. Chyornaya, Altais; 53–55 — specimen from Mt. Bolshoy Zub, Kuznetskiy Alatau Mts.

Рис. 47–55. *Erigone cristatopalpus* Simon, 1884 (47–50, 53–55) и *E. tenuimana* Simon, 1884 (52): 47–52 — эндогина, вид сверху; 53 — левая голень пальпы самца; 54 — эмболюсный отдел; 55 — срединный и задний отросток эмболюсного отдела. 47–49 — экземпляры с хр. Тигирецкий, Алтай; 50, 51 — экземпляры из Ермаковского р-на, Зап. Саян; 52 — экземпляр с г. Черная; 53–55 — экземпляр с г. Большой зуб, Кузнецкий Алатау.

Dudko & V. Zinchenko; 2 ♀♀ (ZMMU), Listvyaga Mt. Ridge, environs of Mt. Tesninskiy Belok, 2000–2300 m, alpine, 20.VII.1997, leg. R. Dudko & V. Zinchenko; 2 ♀♀ (ZMMU), Sarymsakty Mt. Ridge, Sarymsakty River, mountain tundra, 2500–2800 m, 2.VI.1997, leg, R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), W of Tarbagatai Mt. Ridge, Pass Burkhat, 2200–2300 m, 22.VI.1997, leg. , R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), Azutau Mt. Ridge, 10 km SE of Matobai, 2200–2300 m, alpine, 10.VI.1997, leg. R. Dudko & V. Zinchenko.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan [Marusik et al., 1996]; Mt. Baltyrgan, Katunskiy N.R. [Levina, Mikhailov, 2004].

PATTERN. Siberian.

Dicymbium nigrum (Blackwall, 1834)

2004 *Dicymbium nigrum*. — Levina, Mikhailov: 44, re-examined.

MATERIAL. 1 ♂ (ZMMU), RUSSIA, Gorno-Altaysk, 300–400 m, *Betula* forest, near stream, in litter, 26.08.01, leg. N. Levina; 1 ♀ (ZMMU), Narymskiy Mt. Ridge, floodlands of Kainda River, 10–15 km SE of Slavyanka, 5–6.V.1999, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaysk [Levina, Mikhailov, 2004].

PATTERN. West Palaearctic.

Diplocephalus connatus Bertkau, 1889

1979 *Diplocephalus connatus*. — Savelyeva: 144, re-examined.

MATERIAL. 1 ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Ust'-Kamenogorsk, Sogra, in a building, 19.IX.1970, collector unknown.

RECORDS FROM THE ALTAIS. KAZAKHSTAN, Ust'-Kamenogorsk [Savelyeva, 1979].

PATTERN. European-Siberian.

Drepanotylus borealis (Holm, 1945)

2011 *Drepanotylus borealis.* — Volynkin et al.: 172.

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., bank of Lake Chiri, under stones, 1800 m, 31.VII & 1.VIII.1997, leg. A. Tanasevitch; 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, ca 12 km S of Leninogorsk, 2000 m, 30–31.V.1996, leg. R. Dudko; 1 ♀ (CAT), ca 15 km NW of Leninogorsk, Belaya Uba River Valley, near Poperechnoye, 800–900 m, 9.VI.1996, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Tigirekskiy N.R. [Volynkin et al., 2011]

PATTERN. Fennoscandian-Siberian.

Entelecara erythropus (Westring, 1851)

MATERIAL. 3 ♀♀ (CAT), RUSSIA, Lake Teletskoye, near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, in grass, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Erigone arctica maritima Kulczyński, 1902
Figs 36–46.

MATERIAL. 1 ♂ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m, mountain tundra, 1–2.VII.1996, leg. A. & R. Dudko; 2 ♀♀ (CAT), Chikhachyova Mt. Ridge, 3 km SE of Mt. Chyornaya, 2500–2800 m, mountain tundra, 10– 11.VII.1996, leg. A. & R. Dudko.

ADDITIONAL MATERIAL EXAMINED. *Erigone arctica maritima*: 52 ♂♂ & ♀♀ (ZMT, as *Erigone arctica*), FINLAND, Aland Archipelago, Eckero Torp Skeppsvik; 11 ♂♂, 6 ♀♀ (Theo Blick collection, as *Erigone arctica*), GERMANY, Sachsen-Anhalt, W of Halle, Röebel, salty habitat, pitfall traps, 10.VIII.1992, leg. Kreuter, det. Blick; 116 ♂♂, 61 ♀♀ (Theo Blick's collection, as *Erigone arctica*), Niedersachsen, near Emden at the coast, Rysumer Nacken, pitfall traps, 8. VIII.1989, leg. Steidle; 120 ♂♂ & ♀♀ (XXX), ICELAND, from 94 localities of Island; 1 ♂, 2 ♀, NORWAY, Måsöya, 22.VII.1878; ♂♂ & ♀♀, SWEEDEN, Hofterup, leg. Jonsson; 2 ♀♀ (ZMMU), RUSSIA, Murmansk Area, northern coast of Kola Peninsula, Dal'niye Zelentsy, sandy bank of lake, pitfall traps, 8–16.VII.2009, leg. A. Babenko; 1 ♀ (ZMMU), Teriberka, Orlovka River bay, seacoast marsh, under trash & seaweeds, 10.VII.2008, leg. L. Rybalov & V. Semenov; 2 ♀♀ (ZMMU), same locality, agricultural meadow, 4.–6.VIII.2009, leg. V. Piryugin; 1 ♂ (CAT), Murmansk, W coast of Kolskiy Bay, 13–14.VII.1009, leg. I. Nekhaev.

REMARKS. The taxon is here referred to as a subspecies, because the status of the members of the *Erigone arctica*-species group is still unclear. Each species/subspecies from this group is known to correspond to its own sector of the Northern Holarctic [Tanasevitch, in preparation]. All Northern Europe from Iceland to the Kola Peninsula in the east is occupied by *E. a. maritima*; the territory from the east of Kola Peninsula to the western Taimyr Peninsula is taken up by *E. a. palaearctica* Braendegaard, 1934; the Siberian sector from Taimyr to Chukot Peninsula is populated by *E. a. sibirica* Kulczyński, 1908, while the vast areas from Chukotka throughout North America to Greenland is inhabited by *E. a. arctica* (White, 1852). It still is impossible to say unequivocally if this is a chain of intergrading subspecies or vicarious species. The discovery of *E. a. maritima* in the Altais, so far away from its European populations, is rather evidence of its full species rank. The Altai specimens are the most similar to the Norwegian ones.

The species is new to the Altai fauna.

PATTERN. West European – Altai, disjunct.

Erigone arcticola Chamberlin et Ivie, 1947
Fig. 66.

MATERIAL. 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, E part of Yuzhno-Chyuyskiy Mt. Ridge, 40 km SSW of Kosh-Agach, left affluent of Tarkhata River, 2400–3100 m, 3–4.VII.1996, leg. A. & R. Dudko.

REMARKS. This is the southernmost locality of the species' known distribution, hitherto known from the arctic territories of the Holarctic: from British Columbia to Alaska in the Nearctic [Paquin et al., 2010], from Chukotka [Koponen, Marusik, 1992; Marusik et al., 1992; Marusik et al., 1993] to the Bolshezemelskaya Tundra [Tanasevitch, Koponen, 2007] in the Palaearctic. The record of *E. arcticola* high in southern Siberian mountains is another example of an arctoalpine distribution pattern. The species is new to the Altai fauna.

PATTERN. Siberian – West Nearctic.

Erigone capra Simon, 1884

2013 *Erigone dentigera*. — Azarkina, Trilikauskas: 58.

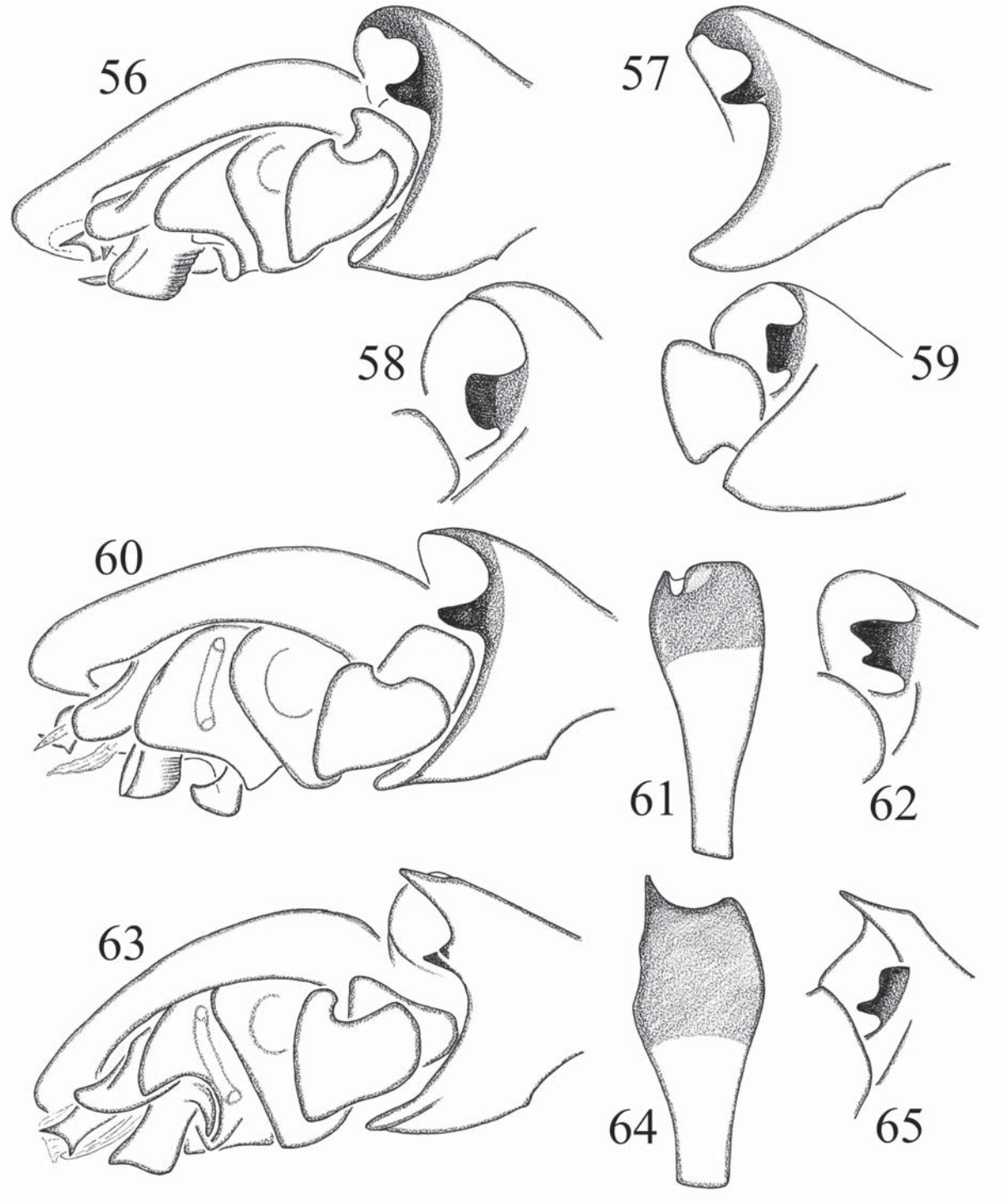
MATERIAL. 1 ♀ (CAT), RUSSIA, Seminskiy Mt. Ridge, Pass Seminskiy, 20–25 km S of Shebalino, 1800–2000 m, subalpine meadow, 22.VI.1999, leg. D. Logunov.

RECORDS FROM THE ALTAIS. RUSSIA: between Dzhazator [= Zhasater] and Zhumaly rivers [Azarkina, Trilikauskas, 2013, as *Erigone dentigera*].

REMARKS. All records of *E. dentigera* in the Palaearctic actually refer to *E. capra* [Tanasevitch, in preparation].

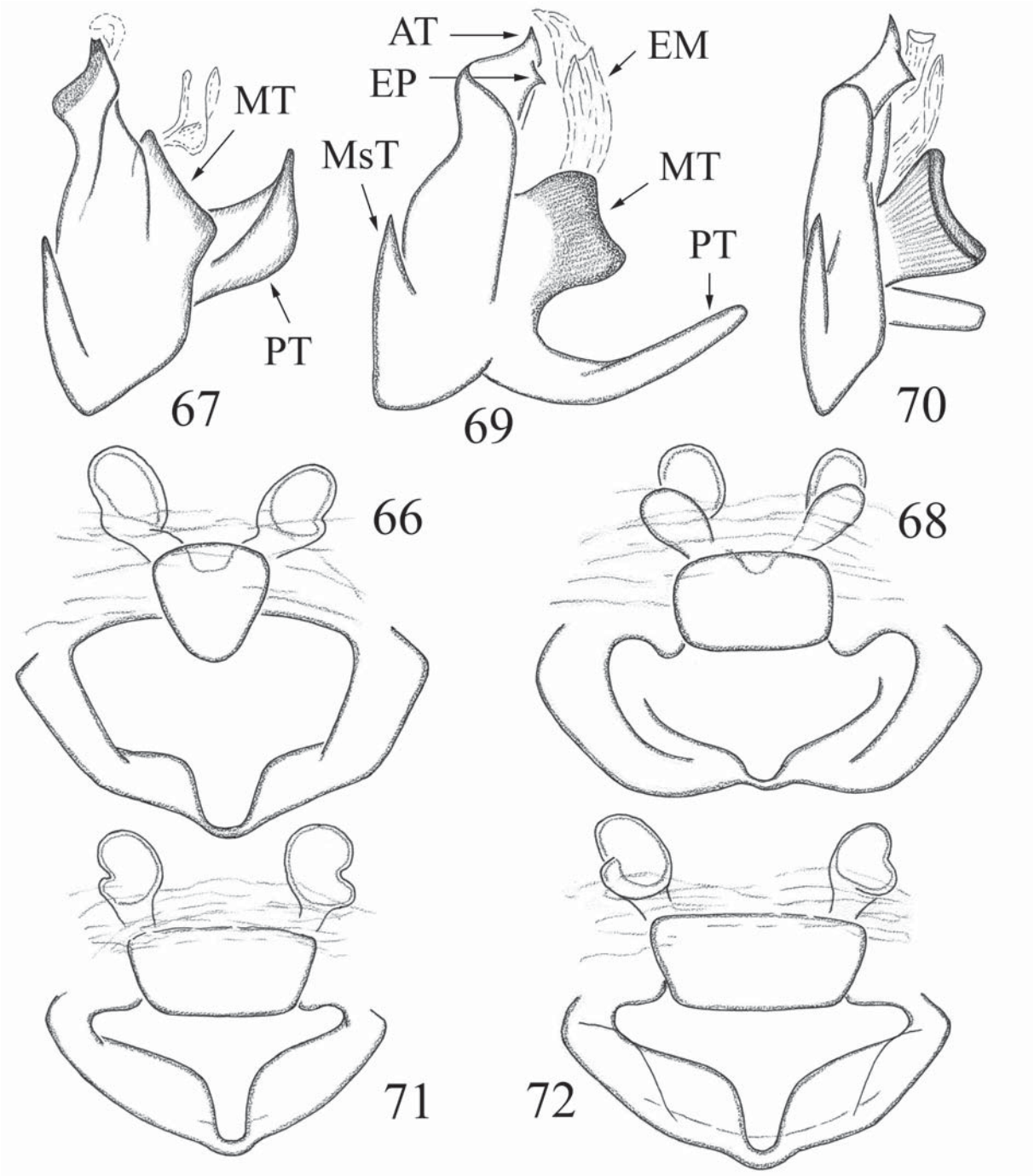
Erigone cristatopalpus Simon, 1884
Figs 47–51, 53–55.

MATERIAL. 3 ♀♀ (CAT), RUSSIA, Charysh Distr., Tigiretskiy Mt. Ridge, Korolevskiy Belok, left bank of Belogolosov Korgon River, 51º00′N 83º44′E, 1800 m, floodplain meadow, sweeping, 20.VII.1999, leg. G. Azarkina. 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area Kholzun Mt. Ridge, upper reaches of left tributary of Bannaya River, 2000–2250 m, mountain tundra, 13–14.VI.1999, leg. A. & R. Dudko; 2 ♂♂ (CAT), environs of Markakol' Lake, 10 km ESE of Urunkhayka, 2200–2400 m, 19–20.VI.1997, leg. R. Dudko & V. Zinchenko.



Figs 56–65. *Erigone hypoarctica* Eskov, 1989 (56–59), *E. remota* L. Koch, 1869 (60–62) & *E. sinensis* Schenkel, 1936 (63–65): 56, 60, 63 — left palp; 57–59, 62, 65 — distal part of palpal tibia, ventro-retrolateral view, different aspects; 61, 64 — palpal tibia, dorsal view; 56–59 — specimen from Artybash, Altais; 60–62 — specimen from Kosh-Agach, Altais; 63–65 — specimen from Urukhaika, Altais. Not to scale.

Рис. 56–65. Детали строения пальпы *Erigone hypoarctica* Eskov, 1989 (56–59), *E. remota* L. Koch, 1869 (60–62) и *E. sinensis* Schenkel, 1936 (63–65): 56, 60, 63 — левая пальпа; 57–59, 62, 65 — дистальная часть голени пальпы, вид сбоку и снизу, разный аспект; 61, 64 — голень пальпы, вид сверху; 56–59 — экземпляр из Артыбаша, Алтай; 60–62 — экземпляр из Кош-Агача, Алтай; 63–65 — экземпляр из Урухайки, Алтай. Не в масштабе.

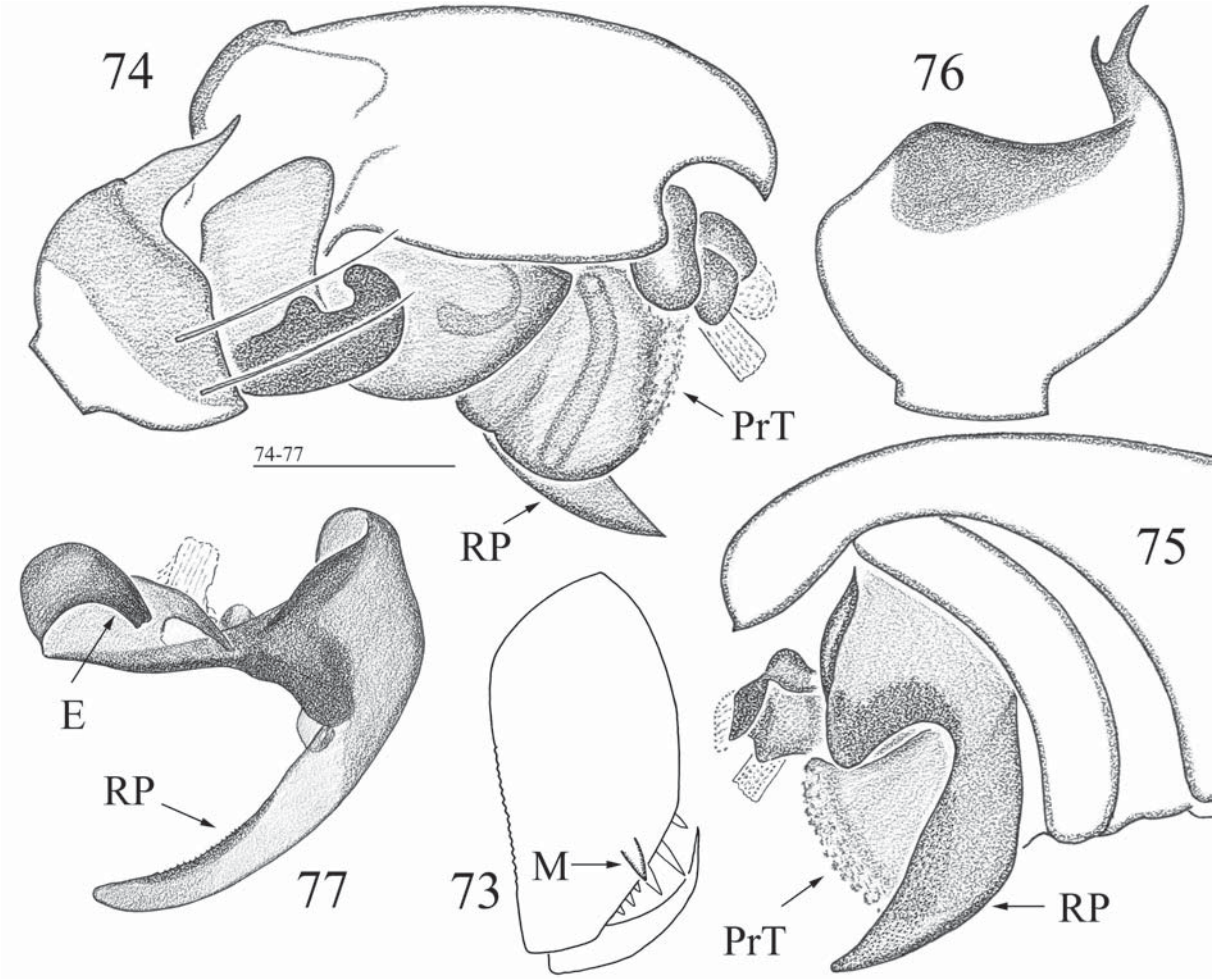


Figs 66–72. *Erigone arcticola* Chamberlin et Ivie, 1947 (66, specimen from Tarkhata River, Altai), *E. hypoarctica* Eskov, 1989 (67, 68, specimens from Artybash, Altais), *E. remota* L. Koch, 1869 (69, 71, 72, specimens from Urunkhayka, Altais) & *E. sinensis* Schenkel, 1936 (70, specimen from Kosh-Agach, Altais): 56, 58, 59 — embolic division; 55, 57, 60, 61 — vulvae, dorsal view. Not to scale.

Рис. 66–72. *Erigone arcticola* Chamberlin et Ivie, 1947 (66, экземпляр с р. Тархата, Алтай), *E. hypoarctica* Eskov, 1989 (67, 68, экземпляры из Артыбаш, Алтай), *E. remota* L. Koch, 1869 (69, 71, 72, экземпляры из Урухайки, Алтай) и *E. sinensis* Schenkel, 1936 (70, экземпляр из Кош-Агача, Алтай): 67, 69, 70 — эмболюсный отдел; 66, 68, 71, 72 — эндогина, вид сверху. Не в масштабе.

ADDITIONAL MATERIAL STUDIED. 1 ♂, 2 ♀♀ (ZMMU, as *Erigone simillima*), RUSSIA, Krasnoyarsk Area, West Sayan Mts., Ermakovo Distr., Pass Oyskiy, 1600 m, subalpine meadow, 10.VII.1990, leg. D. Logunov; 2 ♂♂ (CAT), Kemerovo Area, Kuznetskiy Alatau Mts., Mt. Bolshoy Zub, 1500–1700 m, alpine belt, 26.IX.1997, leg. R. Dudko & I. Lyubechansky; 1 ♀ (CAT), Khakassia, Kuznetskiy Alatau Mts., 7–15 km NE of Balyksu, Terensug River Valley, 18.V.1997, leg. R. Dudko (**all new localities**).

REMARKS. For a long time, in the Russian fauna this species was erroneously referred to as *E. simillima*



Figs 73–77. *Halorates altaicus* sp.n., male holotype: 73 — right chelicera, frontal view, not to scale; 74 — right palp, retrolateral view; 75 — distal part of palp, prolateral view; 76 — palpal tibia, dorsal view; 77 — embolic division.

Рис. 73–77. *Halorates altaicus* sp.n., самец, голотип: 73 — правая хелицера, вид спереди, не в масштабе; 74 — правая пальпа, ретролатерально; 75 — дистальная часть пальпы, пролатерально; 76 — голень пальпы, вид сверху; 77 — эмболюсный отдел.

Keyserling, 1886 or *E. zographica* Crosby et Bishop, 1928. For more details see Tanasevitch [2011a]. The species is new to the Altai fauna.

PATTERN. Holarctic.

Erigone hypoarctica Eskov, 1989
Figs 56–59, 67, 68.

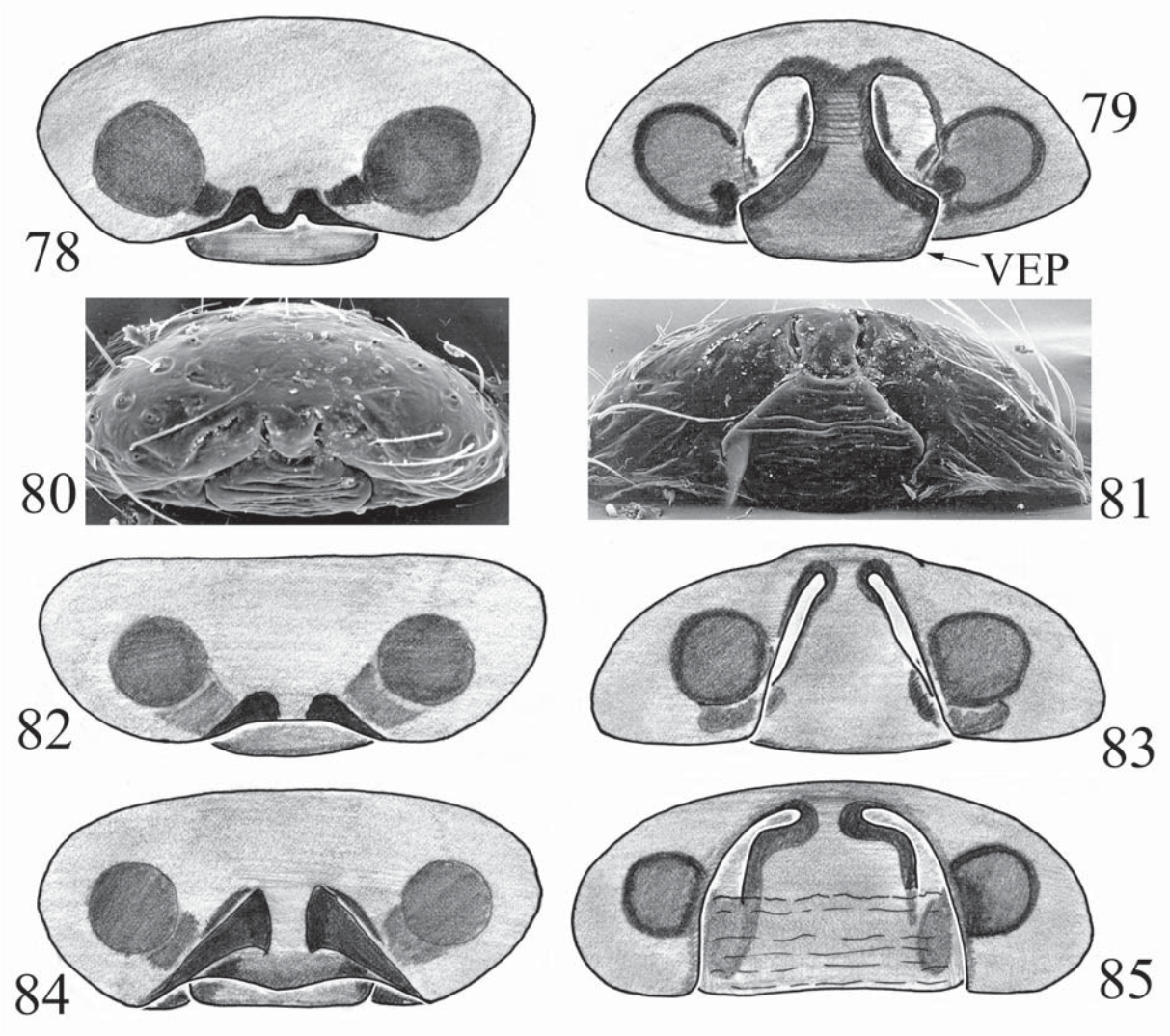
MATERIAL. 1 ♂, 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Siberian.

Erigone remota L. Koch, 1869
Figs 60–62, 69, 71, 72.

MATERIAL. 1 ♀ (ZMMU), RUSSIA, 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko; 1 ♀ (ZMMU), 2 km E of Aktash, 27.VI.1996, leg. A. & R. Dudko; 2 ♂♂, 1 ♀ (ZMMU), Chikhachyova Mt. Ridge, 3 km SE of Mt. Chyornaya, 2500–2800 m, mountain tundra, 10–11.VII.1996, leg. A. & R. Dudko; 1 ♂ (ZMMU), Saylyugem Mt. Ridge, 70–75 km SW of Kosh-Agach, 2350–2400 m, mountain steppe, 6–7.VI.2000, leg. D. Logunov; 1 ♂ (ZMMU), E part of Yuzhno-Chyuyskiy Mt. Ridge, 40 km SSW of Kosh-Agach, left affluent of Tarkhata River, 2400–3100 m, 3–4.VII.1996, leg. A. & R. Dudko; 2 ♀♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, upper reaches of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂ (ZMMU), upper reaches of Ozyornaya River, subalpine, 2200–2300 m, 20.VII.1997, leg. R. Dudko & V. Zinchenko; 2 ♂♂ (ZMMU), E of Narymskiy Mt. Ridge, upper reaches of Ozyornaya River, mountain tundra, 2300–2700 m, 19.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂ (ZMMU), Sarymsakty Mt. Ridge, Sarymsakty River, timberline, 1800–1900 m, 30.VI. 1997, leg, R. Dudko & V. Zinchenko; 1 ♂ (ZMMU), Sarymsakty River, alpine, 2100 m, 1.VII. 1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 5 ♀♀ (ZMMU), E part of Azutau Mt. Ridge, 10 km SW of Urunkhayka, 2200–2300 m, alpine, 18.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (ZMMU), environs of Lake Markakol', 10 km ESE of Urunkhayka, 2200–2400 m, alpine, 19–20.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♂ (ZMMU), Kurchyumskiy Mt. Ridge, 7 km W of Lake Markakol', alpine belt, 2300–2400 m, leg. R. Dudko & V. Zinchenko.



Figs 78–85. Epigyne of *Hilaira meridionalis* sp.n., paratype from Mugur-Aksy, Tuva (78–81), *H. minuta* Eskov, 1979 (82, 83) & *H. gibbosa* Tanasevitch, 1982 (84, 85), both specimens from Mirnoye, Yenisei: 78, 80, 82, 84 — ventral view; 79, 81, 83, 85 — ventro-caudal view. Pencil sketches of Figs 78, 79, 82–85 by Kirill Eskov (Moscow).

Рис. 78–85. Эпигина *Hilaira meridionalis* sp.n., паратип из Мугун-Аксы, Тува (78–81), *H. minuta* Eskov, 1979 (82, 83) & *H. gibbosa* Tanasevitch, 1982 (84, 85), экземпляры из Мирного, Енисей: 78, 80, 82, 84 — вид снизу; 79, 81, 83, 85 — вид снизу и сзади. Рисунки с натуры 78, 79, 82–85 Кирилла Еськова (Москва).

REMARKS. The species is new to the Altai fauna.
PATTERN. Palaearctic.

Erigone sinensis Schenkel, 1936
Figs 63–65, 70.

MATERIAL. 1 ♂ (ZMMU), RUSSIA, 5 km SE of Kosh-Agach, 1850 m, lake shore, salt marsh, 25.VI.1999, leg. D. Logunov.

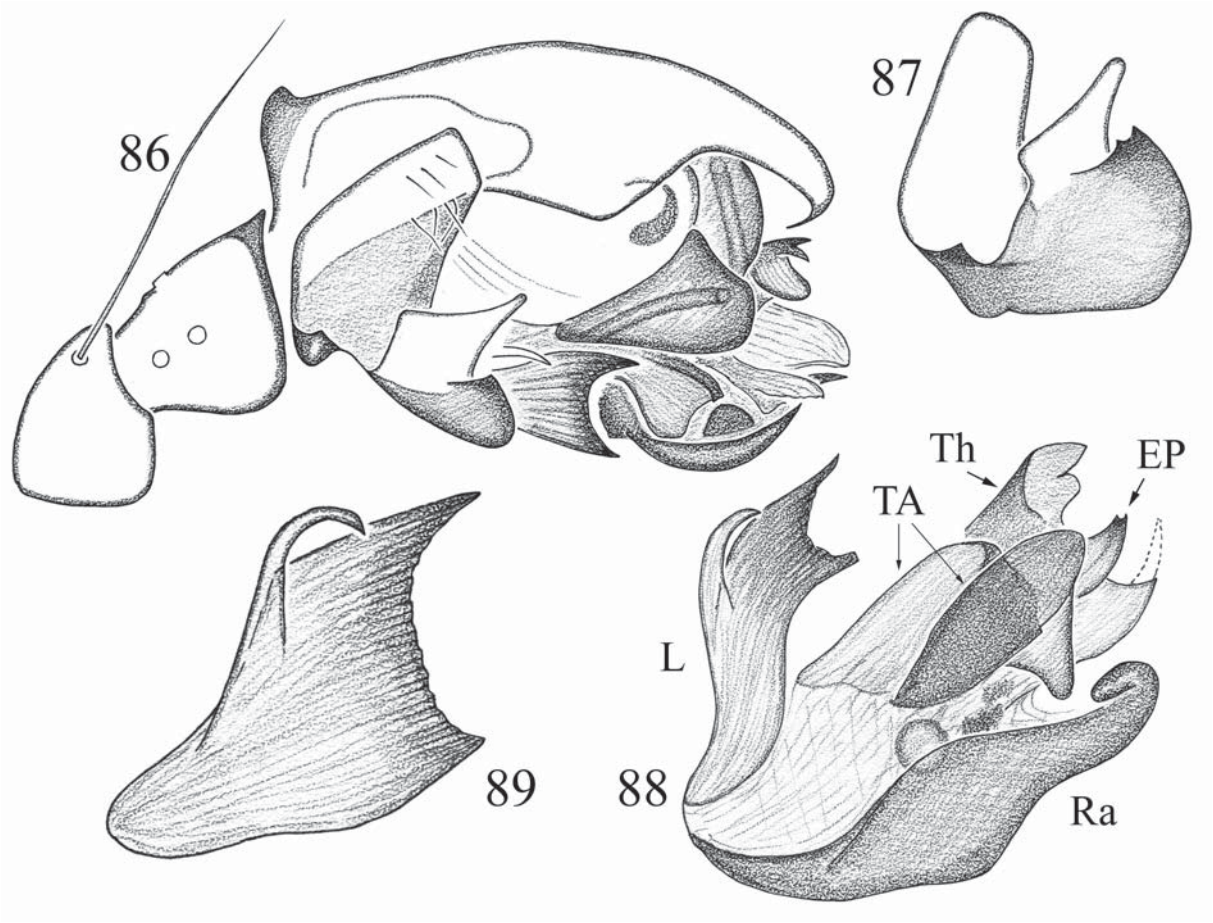
ADDITIONAL MATERIAL EXAMINED. 4 ♂♂, 9 ♀♀ (ZMMU), RUSSIA, Krasnoyarsk Area, Uzhur District, 20 km N Kop'yevo (55.031°N, 89.852°E), bank of Lake Uchyun, 24.VII. 1990, leg. D. Logunov (**new locality**).

REMARKS. The species is new to the Altai fauna.
PATTERN. Southeast Palaearctic.

Erigone tenuimana Simon, 1884
Fig. 52.

MATERIAL. 1 ♀ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m, mountain tundra, 1–2.VII.1996, leg. A. & R. Dudko; 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, 17 km S of Leninogorsk, Mt. Serzhinskiy Belok, 1800–2000 m, alpine, 8.VIII.1997, leg. R. Dudko & V. Zinchenko.

COMPARATIVE MATERIAL EXAMINED. *Erigone tenuimana*: 2 ♂♂, 1 ♀ (MHNG), Austria, Carinthia, route to Mt Grossglockner, ascent to Franz Josef's Height, 2260–2300 m, 1978–1980, leg. K. Thaler; 2 ♂♂, 2 ♀ (MHNG), same locality, 1900–2580 m, 1979, leg. K. Thaler; 1 ♂ (MHNG), same locality, 1900–2580 m, 1979, leg. K. Thaler.



Figs 86–89. *Incestophantes brevilamellus* sp.n., holotype: 86 — right palp; 87 — paracymbium; 88 — embolic division; 89 — lamella characteristica.

Рис. 86–89. *Incestophantes brevilamellus* sp.n., голотип: 86 — правая пальпа; 87 — парацимбиум; 88 — эмболюсный отдел; 89 — ламелла.

REMARKS. The records of *Erigone tenuimana* in the Altais, a species considered earlier as an Alpine endemic, is highly surprising. It would seem more probable to find there, for example, the arcto-alpine *E. whymperi* O. Pickard-Cambridge, 1877, an Arctic form recently discovered in the adjacent parts of Mongolia [Tanasevitch, 2011a]. The epigyne of the Altai specimens corresponds quite well to the figures in Thaler [1978, fig. 25, as *E. cristatopalpus*] or Muster, Hänggi [2009], as well as to the above MHNG comparative material.

The species is new to the Altai fauna.

PATTERN. European-Altai.

Gonatium pacificum Eskov, 1989

MATERIAL. 1 ♀ (ZMMU), RUSSIA, E part of Yuzhno-Chyuyskiy Mt. Ridge, 40 km SSW of Kosh-Agach, left affluent of Tarkhata River, 2400–3100 m, 3–4.VII.1996, leg. A. & R. Dudko.

REMARKS. This is the westernmost locality of the species' known distribution. New to the Altai fauna.

PATTERN. South Siberian-Far Eastern.

Gongylidiellum murcidum Simon, 1884

MATERIAL. 1 ♀ (CAT), RUSSIA, Gorno-Altaisk, near water, 27.VII.2001, leg. N. Levina.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

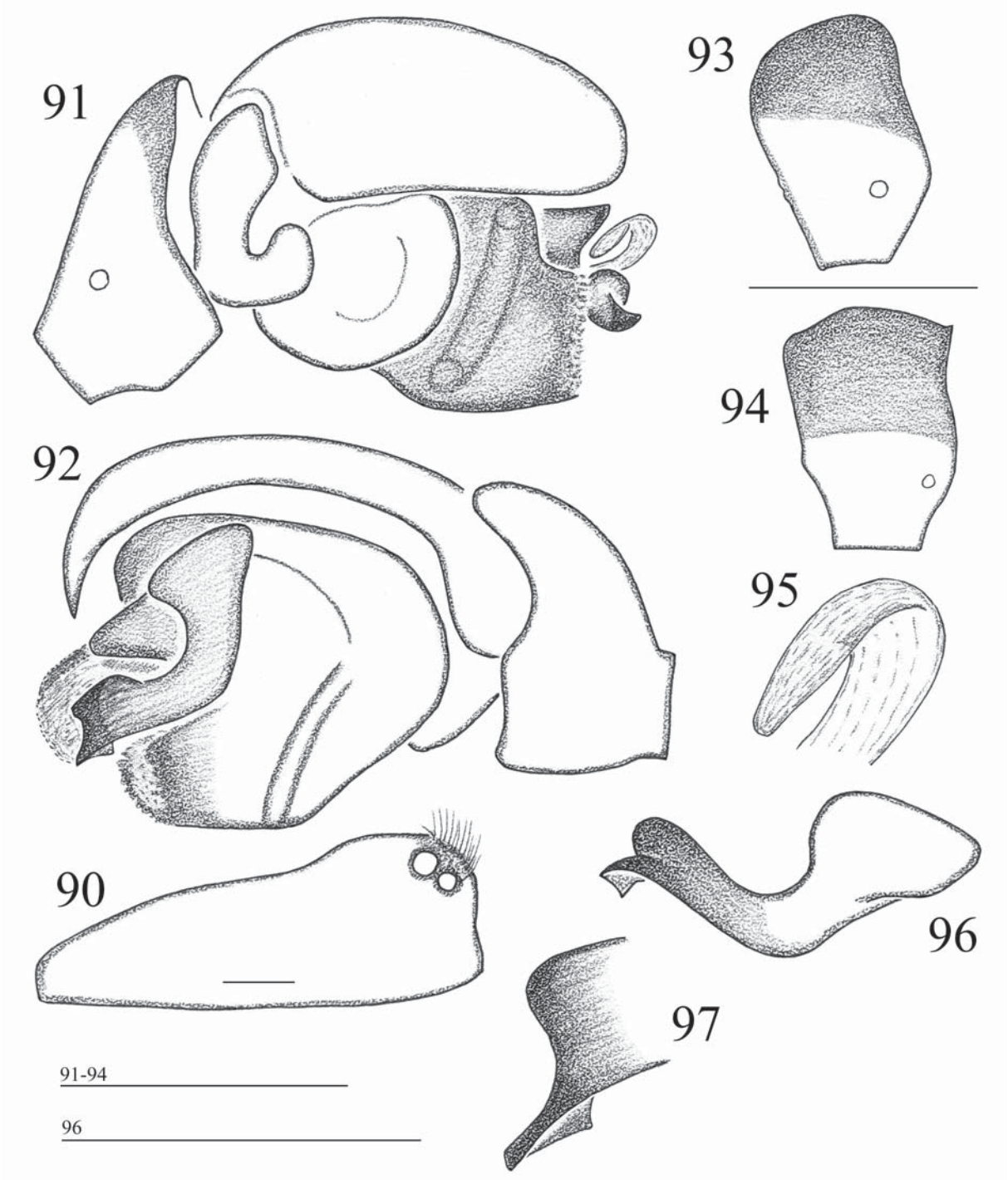
Halorates altaicus **sp.n.**

Figs 73–77.

HOLOTYPE. ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Kholzun Mt. Ridge, upper reaches of left tributary of Bannaya River, 2000–2250 m, mountain tundra, 13–14.VI.1999, leg. A. & R. Dudko.

NAME. The specific name is an adjective referring to the terra typica.

DESCRIPTION. Male (female unknown). Total length 1.80. Carapace 0.88 long, 0.68 wide, unmodified, brown. Chelicerae 0.33 long, mastidion present (Fig. 73). Legs pale brown. Leg I, 2.34 long (0.63 + 0.55 + 0.23 + 0.50 + 0.43), IV, 2.61 long (0.73 + 0.65 + 0.23 + 0.60 + 0.40). Chaetotaxy unclear: spines mostly lost. Mt I–III each with a trichobothrium. TmI, 0.45.



Figs 90–97. *Mecynargus minutus* sp.n.: 90 — male carapace; 91, 92 — right palp, retrolateral and prolateral views, respectively; 93, 94 — palpal tibia, different aspects; 95 — median membrane; 96 — embolic division; 97 — distal part of embolus.

Рис. 90–97. *Mecynargus minutus* sp.n.: 90 — карапакса самца; 91, 92 — правая пальпа, ретролатерально и пролатерально, соответственно; 93, 94 — голень пальпы, разный аспект; 95 — медиальная мембрана; 96 — эмболюсный отдел; 97 — дистальная часть эмболюса.

Palp (Figs 74–77): Palpal tibial dorso-retrolateral outgrowth bifurcated. Cymbium with a posterodorsal keel. Paracymbium relatively small, with a tubercle in distal part. Protegulum obtuse, papillary. Distal suprategular apophysis short, shovel-shaped. Embolic division large, with a wide and long radical process, embolus curved abruptly. Abdomen 0.95 long, 0.60 wide, dark grey.

TAXONOMICAL REMARKS. The species is similar to *H. holmgreni* (Thorell, 1871), but can easily be distinguished by the presence of a mastidion (a frontal cheliceral tooth), as well as by a bifurcated retrolateral outgrowth of the palpal tibia.

REMARKS. *H. altaicus* sp.n. is a South Siberian mountain counterpart for the arcto-alpine *H. holmgreni*.

PATTERN. Altai.

Hilaira glacialis (Thorell, 1871)

MATERIAL. 1 ♂, 2 ♀♀ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m, mountain tundra, 30.V.–2.VII.1996, leg. A. & R. Dudko; 1 ♀ (ZMMU), E part of Yuzhno-Chyuyskiy Mt. Ridge, 40 km SSW of Kosh-Agach, left affluent of Tarkhata River, 2400–3100 m, 3–4.VII.1996, leg. A. & R. Dudko.

REMARKS. This arcto-alpine species is new to the Altai fauna.

PATTERN. Siberian.

Hilaira meridionalis **sp.n.**
Figs 78–81.

HOLOTYPE: ♀ (ZMMU), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2400 m, alpine meadows, spring valley, 30.VI.1996, leg. A. & R. Dudko.

PARATYPES: 1 ♀ (ZMMU), same date and locality, together with holotype; 3 ♀♀ (ZMT), Tuva, 30–35 km SE of Mugur-Aksy, Mt. Mongun-Taiga, 3100–3300 m, 23.VII. 1993, leg. D. Logunov.

NOTE: The Tuva locality lies only about 100 air-km east of the Altai one.

NAME. The specific name is a Latin adjective meaning "southern".

DESCRIPTION. Female holotype (male unknown). Total length, 3.00. Carapace 1.25 long, 0.95 wide, pale brown. Chelicerae 0.55 long, unmodified. Legs pale brown. Leg I, 3.00 long (0.80 + 0.30 + 0.75 + 0.65 + 0.50), IV, 3.34 long (0.95 + 0.28 + 0.85 + 0.78 + 0.48). Chaetotaxy 2.2.2.2. Mt I–IV with a trichobothrium. Tm I, 0.65. Abdomen 1.75 long, 1.15 wide, grey, dark grey. Epigyne as in Figs 57–60, epigynal plate anchor-shaped.

TAXONOMICAL REMARKS. The species belongs to the *minuta*-species group of Eskov [1981], is perhaps the most similar to both *H. minuta* Eskov, 1979 and *H. gibbosa* Tanasevitch, 1982, but is well distinguished by the anchor-shaped epigynal plate (cf. Figs 79, 81 & 83, 85).

PATTERN. South Siberian.

Improphantes complicatus (Emerton, 1882)

MATERIAL. 1 ♂ (CAT), RUSSIA, Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Holarctic.

Improphantes improbulus (Simon, 1929)

MATERIAL. 1 ♀ (ZMMU), RUSSIA, 32 km SW of Ust'-Koksa, E of Mt. Krasnaya, 2000–2500 m, 50º3′N 85º16′E, alpine, 1–4.VI.2005, leg. R. Dudko; 32 km SSW of Ust'-Koksa, upper reaches of Petrushkina River, 1400–1500 m, 50º03′N 85º22′E, 5–6.VI.2005, leg. R. Dudko; 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, Mt. Rossypnoy Belok, 2000–2300 m, mountain tundra, 1–2.VI.1996, leg. R. Dudko.

REMARKS. The species is new to the Altai fauna.

PATTERN. South Palaearctic.

Incestophantes bonus Tanasevitch, 1996

MATERIAL. 4 ♂♂, 3 ♀♀ (ZMMU), RUSSIA, 50 km W of Kosh-Agach, 20–25 km W of Beltir, Taltura (= Chagan-Uzun) River Canyon, 2100–2200 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 1 ♂, 1 ♀ (ZMMU), 20–25 km W of Beltir, 2700–2800 m, mountain stony steppe, 26–30.VI.1999, leg. D. Logunov; 1 ♀ (ZMMU), 40–45 km E of Kosh-Agach, 20 km NE of Kokorya, Saylyungem mountain massif, 2100 m, river grassy-pebble banks, 24–25.VI.1999, leg. D. Logunov.

REMARKS. The species is new to the Altai fauna.

PATTERN. South Siberian.

Incestophantes brevilamellus **sp.n.**
Figs 86–89.

HOLOTYPE. ♂ (ZMMU), RUSSIA, 40–45 km E of Kosh-Agach, 20 km NE Kokorya, Saylyungem mountain massif, 2600–2800 m, mountain moss-*Dryas* tundra, 24–25.VI.1999, leg. D. Logunov.

NAME. The specific name is a Latin adjective meaning "a short lamella".

DESCRIPTION. Male (female unknown). Total length 2.75. Carapace 1.25 long, 0.95 wide, unmodified, pale yellow. Chelicerae 0.65 long. Legs pale yellow without median bands. Leg I, 8.53 long (2.30 + 0.40 + 2.33 + 2.25 + 1.25), IV, 7.46 long (2.10 + 0.30 + 1.93 + 2.13 + 1.00). Chaetotaxy. Fe I: 0-1-0-0, II-IV: 0-0-0-0: Ti I: 2-1-1-4, II: 2-1-1-2(3), III-IV: 2-1-1-1; Mt I-IV: 1-1-1-1. TmI, 0.18. Palp (Figs 86–89): Cymbium with a small posterodorsal outgrowth. Posterior pocket of paracymbium transformed into a small tooth. Lamella characteristica short, broad, with a narrow claw-shaped process. Terminal apophysis complex in shape. Abdomen 1.50 long, 1.00 wide, pale grey, dorsal pattern absent (or faded).

TAXONOMICAL REMARKS. The new species seems to be a member of the *kochiellus*-group of *Incestophantes* Tanasevitch, 1992, see Tanasevitch [1996], and is well recognizable by the short lamella characteristica with a narrow claw-shaped process.

PATTERN. Altai.

Incestophantes tuvensis Tanasevitch, 1996

2009 *I. tuvensis*. — Marusik, Logunov: 149.

MATERIAL. 1 ♀ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m, mountain tundra, 30–31.V.1996, leg. A. & R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Kurai steppe, Chui Mt. Ridge [Marusik, Logunov, 2009].

PATTERN. South Siberian.

Islandiana falsifica (Keyserling, 1886)

MATERIAL. 1 ♂ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m,

mountain tundra, 29–30.VI.1996, leg. A. & R. Dudko; 1 ♀ (CAT), east part of Yuzhno-Chyuyskiy Mt. Ridge, 40 km SSW Kosh-Agach, left tributary of Tarkhata, 2400–3100 m, leg. A. & R. Dudko.

REMARKS. The Yuzhno-Chyuyskiy Mt. Ridge is the southernmost locality in the species' known distribution. New to the Altai fauna.

PATTERN. Fennoscandian-Siberian-West Nearctic.

Kaestneria pullata (O. Pickard-Cambridge, 1863)

MATERIAL. 1 ♂ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, W of Lake Markakol', Urunkhayka, 1500 m, 16.VI.1997, leg. R. Dudko & V. Zinchenko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Holarctic.

Lasiargus pilipes (Kulczyński, 1908)

MATERIAL. 1 ♂ (CAT), KAZAKHSTAN, East Kazakhstan Area, Kurchyumskiy Mt. Ridge, near Kystav-Kurchum, slope, 800–1200 m, bushes, 1972, leg. unknown.

REMARKS. The species is new to the Altai fauna.

PATTERN. Siberian.

Linyphia hortensis Sundevall, 1830

MATERIAL. 1 ♂ (ZMMU), RUSSIA, Gorno-Altaisk, Tuu-Gaya, 400 m, *Pinus* forest, sweeping, 27.VIII.2001, leg. N. Levina; 1 ♀ (CAT), Lake Teletskoye, Altaiskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Macrargus rufus (Wider, 1834)

MATERIAL. 1 ♂ (ZMT), RUSSIA, 32 km SW of Ust'-Koksa, E of Mt. Krasnaya, 2000–2500 m, alpine, 4.VI.2005, leg. R. Dudko.

REMARKS. The species is new to the Altai fauna.

PATTERN. European – South Siberian.

Mecynargus minutus **sp.n.**
Figs 90–97.

HOLOTYPE. ♂ (ZMMU), RUSSIA, 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko.

PARATYPE. 1 ♂ (ZMMU), together with holotype.

NAME. The specific name is a Latin adjective meaning "small", referring to the small size of the spider.

DESCRIPTION. Male. Total length 1.63. Carapace 0.68 long, 0.56 wide, grey-brown, weakly modified as in Fig. 90. Chelicerae 0.28 long. Legs grey brown. Leg I, 1.94 long (0.55 + 0.23 + 0.43 + 0.38 + 0.35), IV, 2.07 long (0.60 + 0.18 + 0.53 + 0.43 + 0.33). Chaetotaxy 2.2.2.2. Tm I, 0.63. Palp (Figs 91–97): Tibia unmodified, with neither outgrowths nor notches. Protegulum obtuse, papillary. Distal suprategular apophysis small, conical. Median membrane well-developed, curved. Embolic division relatively small, thin, curved. Embolus short. Abdomen 0.93 long, 0.50, grey.

Female. Unknown.

TAXONOMIC REMARKS. By the shape of the embolic division, *M. minutus* sp.n. resembles *M. morulus* (O. Pickard-Cambridge, 1873), but is distinguished by the unmodified palpal tibia. The shape of the palpal tibia of *M. minutus* sp.n. is similar to that of *M. sphagnicola* (Holm, 1939), but the latter species, unlike *M. minutus* sp.n., has a long and no so much curved embolic division.

PATTERN. Altai.

Mecynargus tungusicus (Eskov, 1981)

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Siberian-West Nearctic.

Metopobactrus prominulus (O. Pickard-Cambridge, 1872)

MATERIAL. 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Samarskoye District, Kaindinskiy Bor, 700–900 m, 26–28.VIII.1985, leg. A. Fedorov.

REMARKS. The species is new to the Altai fauna.

PATTERN. Holarctic.

Mughiphantes cornutus (Schenkel, 1927)

1996 *Lepthyphantes cornutus*. — Marusik et al.: 33, re-examined.

2004 *L. cornutus*. — Levina, Mikhailov: 45, re-examined.

MATERIAL. 4 ♂♂, 3 ♀♀ (CAT), RUSSIA, Teletskoye Lake, Altayskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♀ (CAT), Ust'-Kan, 1400 m, 27.VII.1996, leg. A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan & Bertkem [Marusik et al., 1996]; Mt. Baltyrgan [Levina, Mikhailov, 2004].

PATTERN. European – Ancient Mediterranean.

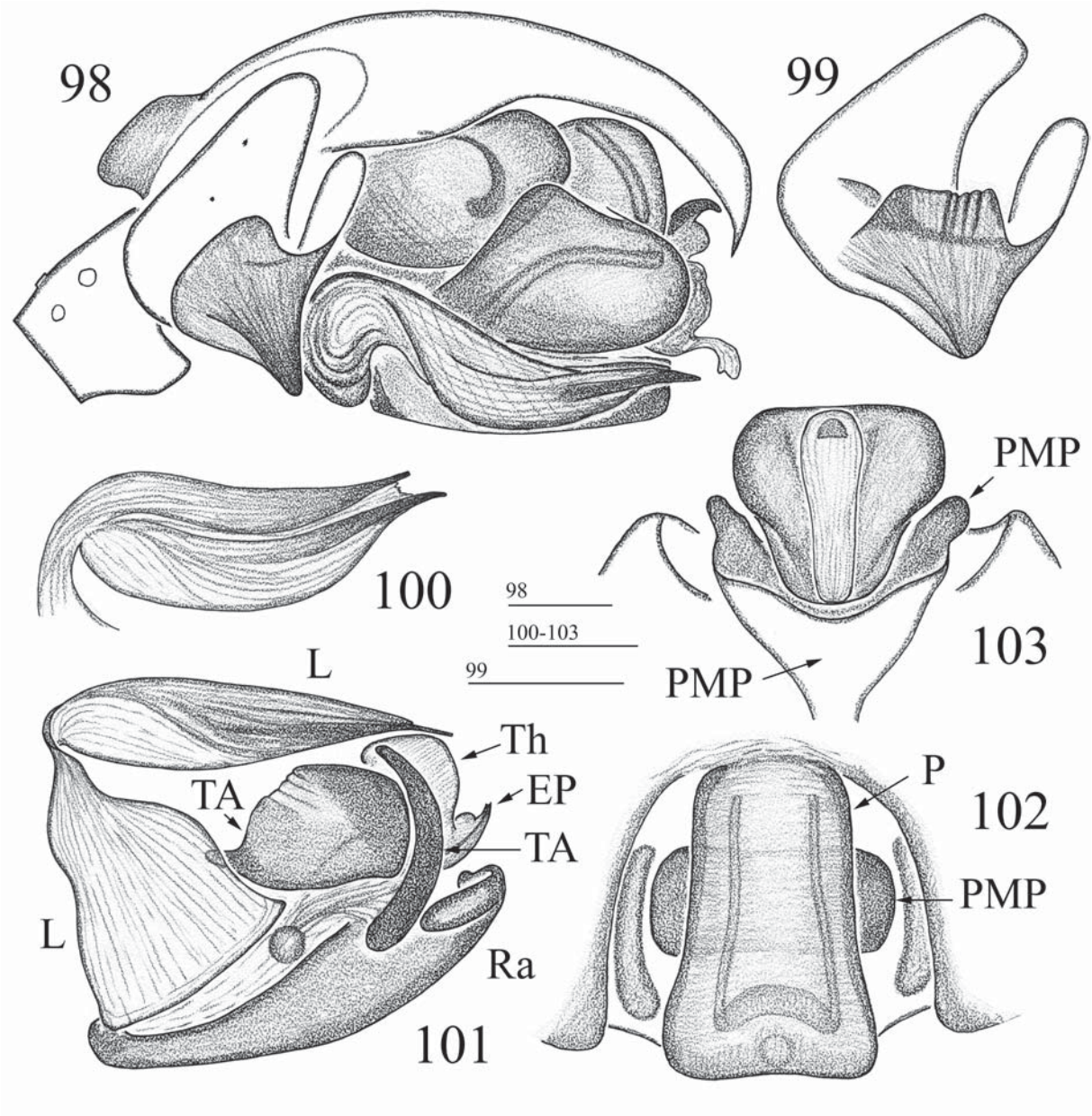
Mughiphantes sobrioides Tanasevitch, 2000
Figs 98–103.

2000 *Mughiphantes* (*Whymperiphantes*) *sobrioides*. — Tanasevitch: 250, figs 28–30, ♀.

MATERIAL. 3 ♂♂, 4 ♀♀ (ZMMU), RUSSIA, 50 km W of Kosh-Agach, 20–25 km W of Beltir, Plateau Shaltra, 2700–2800 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 1 ♀ (ZMMU), 40–45 km E of Kosh-Agach, 20 km NE Kokorya, Saylyugem mountain massif, 2600–2800 m, mountain moss-*Dryas* tundra, 24–25.VI.1999, leg. D. Logunov.

REMARKS. This species was originally described from a single female from Chikhachyova Mt. Ridge, SE Altai [Tanasevitch, 2000].

DESCRIPTION. Male. Total length 2.55. Carapace 1.05 long, 0.85 wide, pale brown. Chelicerae 0.50 long. Legs pale brown, without dark bands. Leg I, 4.60 long (1.25 + 0.30 + 1.20 + 1.15 + 0.70), IV, 4.55 long (1.20 + 0.30 + 1.20 + 1.15 + 0.7). Chaetotaxy. Ti I: 2-1-1-1, II: 2-0-1-1(0), III: 2-0-0-1(0), IV: 2-1(0)-0-1(0). Metatarsi I–III with one dorsal spine. Tm I, 0.24. Palp



Figs 98–103. *Mughiphantes sobrioides* Tanasevitch, 2000, ♂ from Beltir, Altais, ♀ — holotype from Mt. Chiornaya, Altais: 98 — right palp; 99 — paracymbium; 100 — lamella characteristica; 101 — embolic division; 102, 103 — epigyne of holotype, ventral and dorsal views, respectively.

Рис. 98–103. *Mughiphantes sobrioides* Tanasevitch, 2000. ♂ из Белтир, Алтай, ♀ с г. Чёрная, Алтай. 98 — правая пальпа; 99 — парацимбиум; 100 — ламелла; 101 — эмболюсный отдел; 102, 103 — эпигина, паратип, вид снизу и сверху, соответственно.

(Figs 98–101): Cymbium with a keel-shaped posterodorsal outgrowth. Anterior pocket of paracymbium transformed into a high ridge. Lamella characteristica very large, narrowed in middle part. Terminal apophysis complex in shape, highly sclerotized. Thumb (a lateral extension of embolus) well-developed. Abdomen 1.50 long, 0.95 wide. Dorsally pale with a pair of grey, longitudinal, curved stripes transformed into transverse bands in distal half of abdomen.

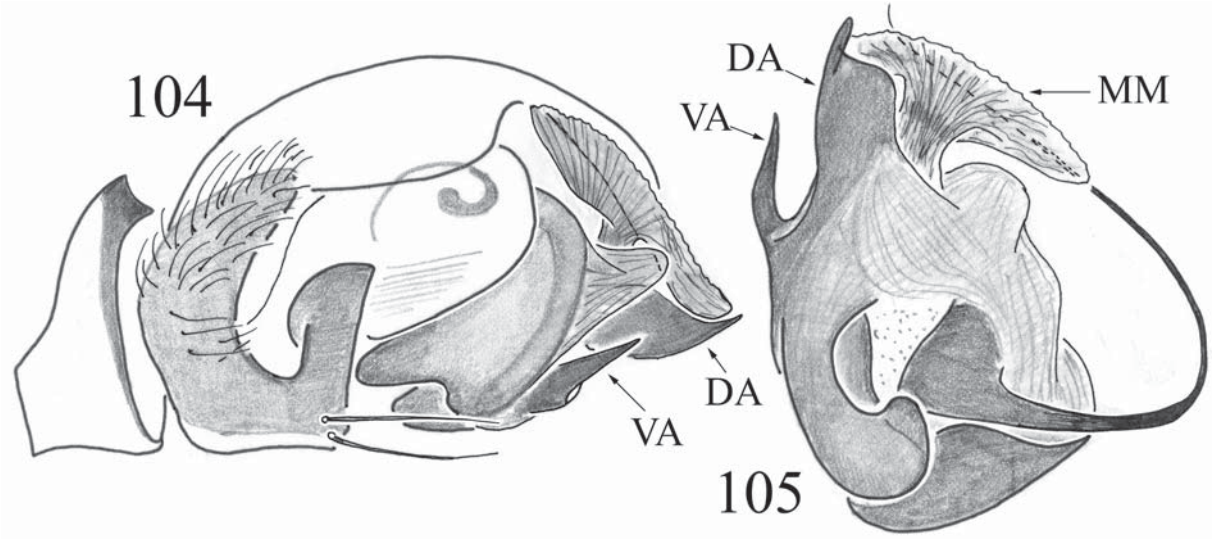
REMARKS. The ♀ holotype of this species was found in the mountain tundra of Mt. Chyornaya, 2500–2800 m. The current material also stems from high in the mountains, at 2600–2800 m a.s.l. This is the first description of the male of *M. sobrioides*.

RECORDS FROM THE ALTAIS. RUSSIA: Chikhachyova Mt. Ridge [Tanasevitch, 2000b].

PATTERN. Altai.

Notioscopus sibiricus Tanasevitch, 2007

1996 *Notioscopus jamalensis*. — Marusik et al.: 34, misidentification, re-examined.



Figs 104, 105. *Oreoneta eskovi* Saaristo et Marusik, 2004, specimen from Urunkhayka, Altais: 104 — right palp; 105 — embolic division & median membrane. Not to scale.

Рис. 104, 105. *Oreoneta eskovi* Saaristo et Marusik, 2004, экземпляр из Урунхайки, Алтай. 104 — правая пальпа; 105 — эмболюсный отдел и медиальная мембрана. Не в масштабе.

2004 *N. jamalensis*. — Levina, Mikhailov: 46, reference.

MATERIAL. 1 ♀ (CAT), RUSSIA, Katunskiy Mt. Ridge, Katunskiy N.R., Lake Sredneye Multinskoye, 1650–1700 m, 31.VII.1994, leg. A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan [Marusik et al., 1996, as *Notioscopus jamalensis* Grese, 1909].

REMARKS. The species is new to the Altai fauna.

PATTERN. Siberian.

Oedothorax mongolensis (Heimer, 1987)

MATERIAL. 6 ♀♀ (ZMMU), RUSSIA, 50 km W of Kosh-Agach, 20–25 km W of Beltir, Shaltra Plateau, 2700–2800 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 1 ♀ (ZMMU), 5 km ENE of Kosh-Agach, Buylyukem River Valley, 2200 m, 12.VII.1996, leg. A. & R. Dudko; 1 ♀ (ZMMU), 28 km S of Kosh-Agach, Chagan-Burgazy River Valley, 2000 m, 29.VI.1996, leg. A. & R. Dudko; 1 ♀ (ZMMU), 28 km S of Kosh-Agach, Chagan-Burgazy River Valley, 29.VI.1996, leg. A. & R. Dudko; 11 ♀♀ (ZMMU), Saylyugem Mt. Ridge, 70–75 km SW of Kosh-Agach, 49°33'N, 88°17'E, 2350–2400 m, mountain steppe, 6–7.VI.2000, leg. D. Logunov; 4 ♀♀ (ZMMU), 42 km SSW of Kosh-Agach, Kalanegir River Valley, 2–5 km upper mouth, 2300 m, 2–3.VII.1996, leg. A. & R. Dudko; 1 ♀ (ZMMU), 50 km ENE of Kosh-Agach, Buylyukem River Valley, 2200 m, 12.VII.1996, leg. A. & R. Dudko; 4 ♀♀ (ZMMU), 42 km SSW of Kosh-Agach, Kalanegir River Valley (2–5 km upper mouth), 2300 m, 2–3.VII.1996, leg. A. & R. Dudko.

REMARKS. The species is new to the Altai fauna.

PATTERN. South Siberian.

Oreoneta eskovi Saaristo et Marusik, 2004
Figs 104–105.

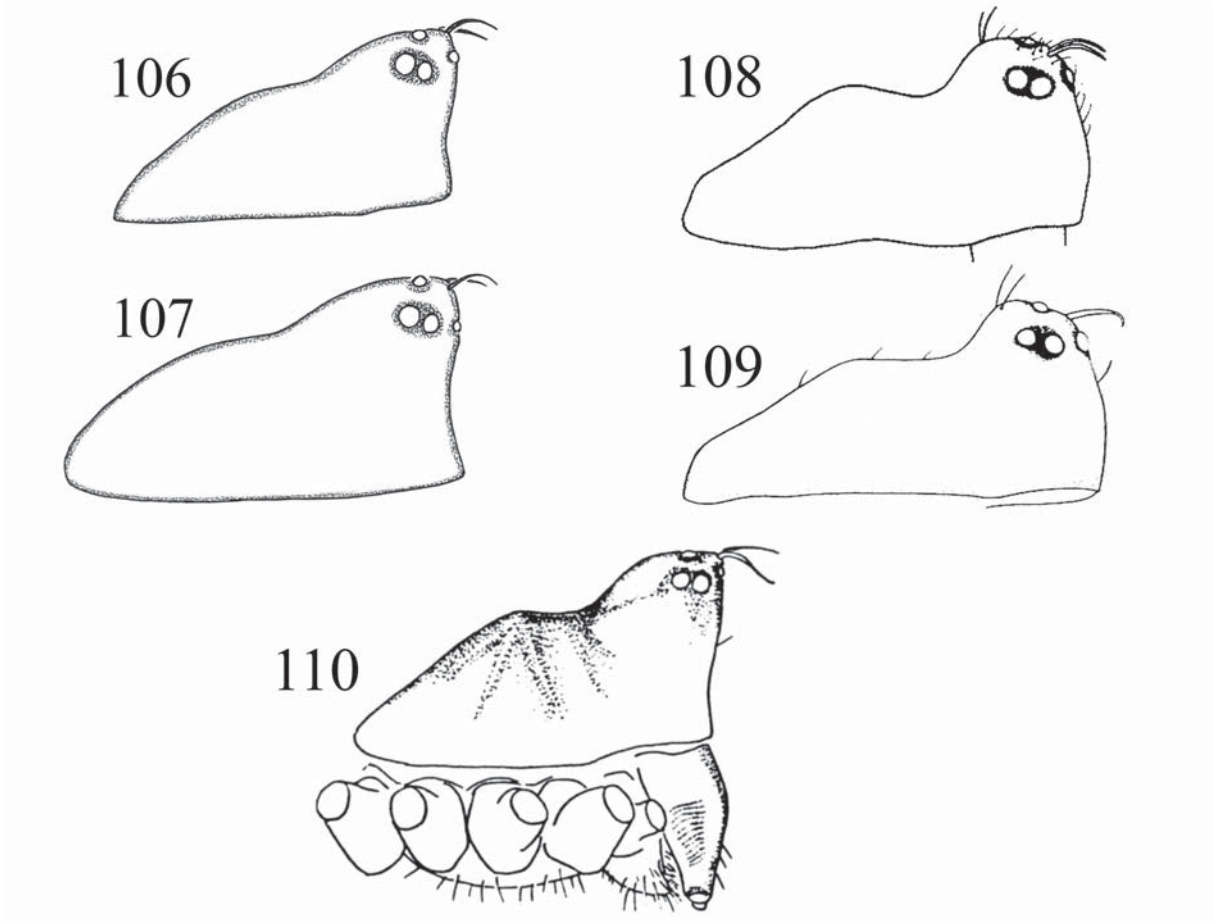
2004 *Oreoneta uralensis* Saaristo et Marusik: 241, ♀ paratype from Altai Mts, misidentification, re-examined.

2004 *Hilaira tatrica*. — Levina, Mikhailov: 45, misidentification, re-examined.

MATERIAL. 1 ♂, 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 5 ♀♀ (CAT), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 1 ♂, 4 ♀♀ (CAT), 5 km SSW of Ust'-Kan, Kutergen River Valley, 1300 m, forest, 7.VI.1999, leg. A. & R. Dudko; 2 ♂♂, 5 ♀♀ (CAT), 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko; 1 ♀ (ZMT), 32 km SW of Ust'-Koksa, E of Mt. Krasnaya, 2000–2500 m, alpine, 4.VI.2005, leg. R. Dudko; 2 ♂♂, 3 ♀♀ (CAT), S macroslope of Terektinskiy Mt. Ridge, upper reaches of Kastakhanka River, 2000–2400 m, mountain tundra, VI.1999, leg. A. & R. Dudko; 3 ♀♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, upper reaches of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), Kholzun Mt. Ridge, upper reaches of left tributary of Bannaya River, 2000–2500 m, mountain tundra, 13–14.VI.1999, leg. A. & R. Dudko; 1 ♂ (CAT), E of Narymskiy Mt. Ridge, upper reaches of Ozyornaya River, mountain tundra, 2300–2700 m, 19.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), Sarymsakty Mt. Ridge, Sarymsakty River, timberline, 1800–1900 m, 30.VI. 1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (CAT), Sarymsakty River, alpine, 2100 m, 1.VII. 1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 4 ♀♀ (CAT), E part of Azutau Mt. Ridge, 10 km SW of Urunkhayka, 2200–2300 m, alpine, 18.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), environs of Lake Markakol', 10 km ESE of Urunkhayka, 2200–2400 m, alpine, 19–20.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (CAT), Azutau Mt. Ridge, 10 km SE of Matobai, 2200–2300 m, alpine, 10.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), 50 km W of Kosh-Agach, 20–25 km W of Beltir, Shaltra Plateau, 2700–2800 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov.

ADDITIONAL MATERIAL EXAMINED. 5 ♂♂, 1 ♀ (CAT), RUSSIA, Khakassia, Abakanskiy Mt. Ridge, 60 km of WNW Tashtyp, Bolshoy Kol'tayga Mt. Ridge, 1400–1800 m, stony debris, 16–25.VI.2000, leg. D. Lomakin (**new locality**); 6 ♀♀ (CAT), W of Tarbagatai Mt. Ridge, Pass Burkhat, 2200–2300 m, 22.VI.1997, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Baltyrgan [Levina, Mikhailov, 2004, as *Hilaira tatri-*



Figs 106–110. Male carapace of *Scotinotylus antennatus* (O. Pickard-Cambridge, 1875) (106–109) & *S. eutypus* (Chamberlin, 1949) after Saito, Yasuda [1988] (110): 106 — specimen from Lake Chiri, Altais; 107 — specimen from Zagrikha, Altais; 108 — specimen from Europe after Millidge [1981]; 109 — specimen from the Alps after Thaler [1970]; 110 — specimen from Japan. Not to scale.

Рис. 106–110. Карапакс самца *Scotinotylus antennatus* (O. Pickard-Cambridge, 1875) (106–109) и *S. eutypus* (Chamberlin, 1949) по Saito, Yasuda [1988] (110): 106 — экземпляр с оз. Чири, Алтай; 107 — экземпляр из Загрихи, Алтай; 108 — экземпляр из Европы по Millidge [1981]; 109 — экземпляр из Альп по Thaler [1970]; 110 — экземпляр из Японии. Не в масштабе.

ca]; Aktash [Saaristo, Marusik, 2004, as *Oreoneta uralensis*].

REMARKS. The species is new to the Altai fauna.

PATTERN. Central & South Siberian.

Oryphantes geminus (Tanasevitch, 1982)

1996 *L. tes* Marusik et al.: 14, figs 8, 10a, 11b, 13b, re-examined.

2004 *L. bipilis*. — Levina, Mikhailov: 45, misidentification, re-examined.

2004 *L. geminus*. — Levina, Mikhailov: 45, re-examined.

2004 *L. tes*. — Levina, Mikhailov: 45, reference.

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♀♀ (ZMMU), Pass Seminskiy, 1800–2000 m, 27.VII.1990, leg. S. Ovtchinnikov; 1 ♀ (ZMMU), 5 km SSW of Ust'-Kan, Kutergen River Valley, 1300 m, forest, 7.VI.1999, leg. A. & R. Dudko; 1 ♀ (ZMMU), 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko; 2 ♂♂, 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m, 10.V.1999, leg. R. Dudko, V. Zinchenko. & I. Lyubechansky.

PATTERN. East European – West & South Siberian.

Pelecopsis dorniana Heimer, 1987

1996 *Pelecopsis dorniana*. — Marusik et al.: 34, re-examined.

2004 *P. dorniana*. — Levina, Mikhailov: 46, reference.

MATERIAL. 8 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Chiri Lake, stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♂♂, 6 ♀♀ (CAT), Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin.

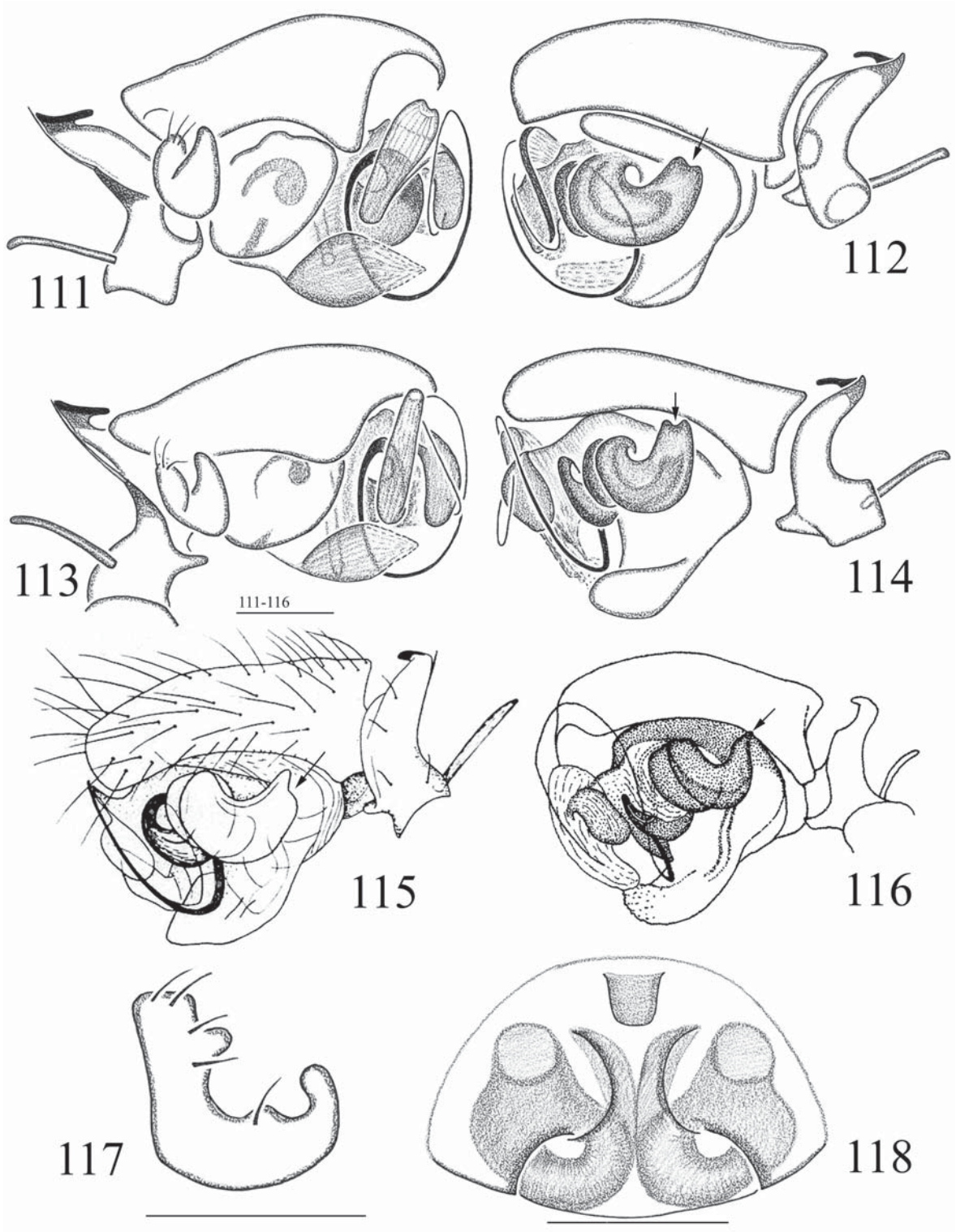
RECORDS FROM THE ALTAIS. RUSSIA: Bertkem [Marusik et al., 1996].

PATTERN. Siberian.

Pelecopsis palmgreni Marusik et Esyunin, 1998

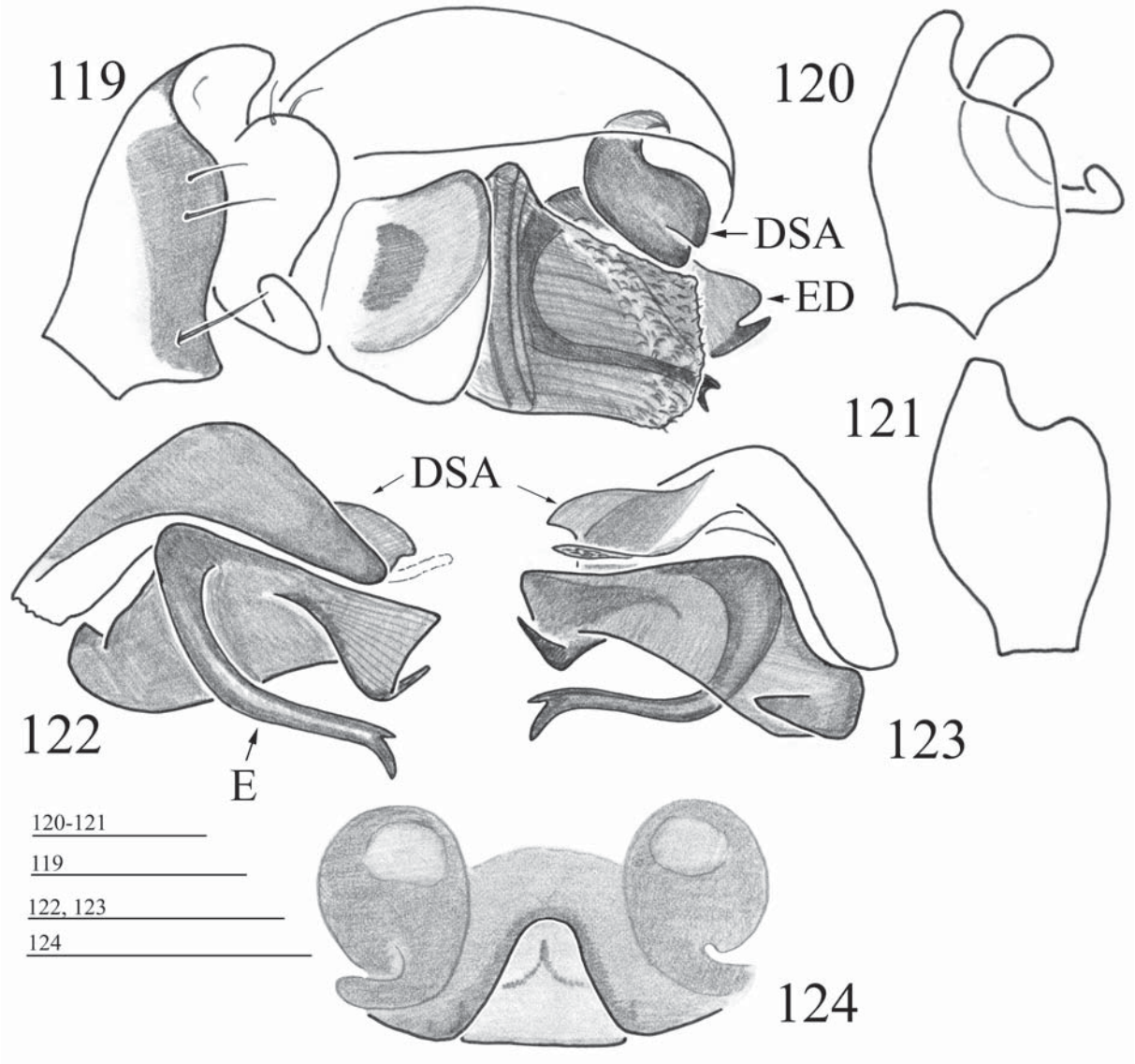
2004 *Trichopterna mengei*. — Levina, Mikhailov: 47, misidentification, re-examined.

2011 *Pelecopsis palmgreni*. — Volynkin et al.: 173.



Figs 111–118. *Scotinotylus antennatus* (O. Pickard-Cambridge, 1875) (111–115, 117, 118) & *S. eutypus* (Chamberlin, 1949) (116): 111–116 — right palp; 117 — paracymbium; 118 — epigyne, ventral view. 111, 112, 117 — specimen from Zagrikha, Altais; 113, 114, 118 — specimens from Lake Chiri, Altais; 115 — specimen from the Alps after Thaler [1970]; 116 — specimen from Washington State after Millidge [1981].

Рис. 111–118. *Scotinotylus antennatus* (O. Pickard-Cambridge, 1875) (111–115, 117, 118) и *S. eutypus* (Chamberlin, 1949) (116): 111–116 — правая пальпа; 117 — парацимбиум; 118 — эпигина, вид снизу. 111, 112, 117 — экземпляр из Загрихи, Алтай; 113, 114, 118 — экземпляр с оз. Чири, Алтай; 115 — экземпляр из Альп по Thaler [1970]; 116 — экземпляр из штата Вашингтон по Millidge [1981].



Figs 119–124. *Semljicola latus* (Holm, 1939), specimen from Lake Chiri, Altais: 119 — right palp; 120, 121 — palpal tibia, dorsal view, different aspects; 122, 123 — suprategulum & embolic division, different aspects; 124 — epigyne, ventral view.

Рис. 119–124. *Semljicola latus* (Holm, 1939), экземпляр с оз. Чири, Алтай: 119 — правая пальпа; 120, 121 — голень пальпы, вид сверху, разный аспект; 122, 123 — супратегулюм и эмболюсный отдел, разный аспект; 124 — эпигина, вид снизу.

MATERIAL. 70 ♂♂ & ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 11 ♂, 16 ♀♀ (CAT), near Lake Chiri, stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♂♂, 3 ♀♀ (CAT), Katunskiy N.R., 1650–2200 m, 2–4.VIII.1994, leg. A. Ryvkin; 2 ♀♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, Gromotukha River, 1400–1600 m, *Larix* sparse forest, 3–5.VI.1996, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Baltyrgan [Levina, Mikhailov, 2004, as *Trichopterna mengei*].

PATTERN. South Siberian.

Poeciloneta petrophila Tanasevitch, 1989

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, 500–800 m, 24.VII.1990, leg. S. Ovtchinnikov.

REMARKS. This is the westernmost locality in the species' known distribution. New to the Altai fauna.

PATTERN. South & East Siberian – West Nearctic.

Porrhomma pallidum Jackson, 1913

MATERIAL. 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Artybash, 500–800 m, 24.VII.1990, leg. S. Ovtchinnikov; 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, upper reach-

es of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (ZMMU), Kurchyumskiy Mt. Ridge, upper reaches of Topolyovka River, subalpine, 2100–2200 m, 4–5.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (ZMMU), Kurchyumskiy Mt. Ridge, 10 km WSW of Aksubas, pass near the upper reaches of Topolyovka River, subalpine, 2500 m, 4.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 2 ♀♀ (ZMMU), Kurchyumskiy Mt. Ridge, upper reaches of Topolyovka River, subalpine, 2100–2200 m, 4–5.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (ZMMU), environs of Lake Markakol', 10 km ESE of Urunkhayka, 2200–2400 m, alpine, 19–20.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♂, 1 ♀ (ZMMU), Azutau Mt. Ridge, 10 km SE of Matobai, 2200–2300 m, alpine, 10.VI.1997, leg. R. Dudko & V. Zinchenko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Porrhomma pygmaeum (Blackwall, 1834)

1996 *Porrhomma montanum*. — Marusik et al.: 34, misidentification, re-examined.

2004 *P. montanum*. — Levina, Mikhailov: 46, reference.

RECORDS FROM THE ALTAIS. RUSSIA: Katun' River [Marusik et al., 1996, as *Porrhomma montanum*].

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Pseudocyba miracula Tanasevitch, 1984

1996 *Pseudocyba miracula*. — Marusik et al.: 34, re-examined.

2004 *P. miracula*. — Levina, Mikhailov: 46, reference.

MATERIAL. 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area ca 15 km NW of Leninogorsk, Belaya Uba River Valley, near Poperechnoye, 800–900 m, 9.VI.1996, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Katanda & Katun' Camp [Marusik et al., 1996].

PATTERN. Siberian.

Praestigia pini (Holm, 1950)

1996 *Praestigia pini*. — Marusik et al.: 34.

2004 *P. pini*. — Levina, Mikhailov: 46, re-examined.

MATERIAL. 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♀ (CAT), 2 km SE of Kosh-Agach, 27.?.1996, leg A. & R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Iogach [Marusik et al., 1996]; Katunskiy N.R. [Levina, Mikhailov, 2004].

PATTERN. Fennoscandian-Siberian.

Scotargus pilosus Simon, 1913

MATERIAL. 1 ♂, 1 ♀ (ZMMU), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Populus* forest with *Pinus sibirica*, 500–800 m, 7.VIII.1997, leg. A. Tanasevitch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Scotinotylus alpigena (L. Koch, 1869)

MATERIAL. 1 ♀ (CAT), RUSSIA, 8 km S of Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A. & R. Dudko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Scotinotylus antennatus (O. Pickard-Cambridge, 1875)

Figs 106–109, 111–115, 117, 118.

2004 *Scotinotylus* cf. *antennatus*. — Levina, Mikhailov: 46, re-examined.

MATERIAL. RUSSIA: 1 ♂, 1 ♀ (CAT), Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, stony slope, 1750–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♀ CAT), same locality, mountain tundra, 2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), Charysh District, Bashchelakskiy Mt. Ridge, 30 km NEE of Sentelek, near Zagrikha, 1700 m, spruce forest near the top, 27.VI.2000, leg. G. Azarkina; 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, ca 12 km S of Leninogorsk, 2000 m, mountain tundra, 30 & 31.V.1996, leg. R. Dudko; 1 ♀ (CAT), W of Tarbagatay Mt. Ridge, Pass Burkhat, 2200–2300 m, 22.VI.1997, leg. R. Dudko & V. Zinchenko.

COMPARATIVE MATERIAL EXAMINED. 2 ♂♂, 1 ♀ (MHNG), Austria, Carinthia, route to Mt. Grossglockner, ascent to Franz Josef's Height, 2260–2300 m, 1978–1980, leg. K. Thaler.

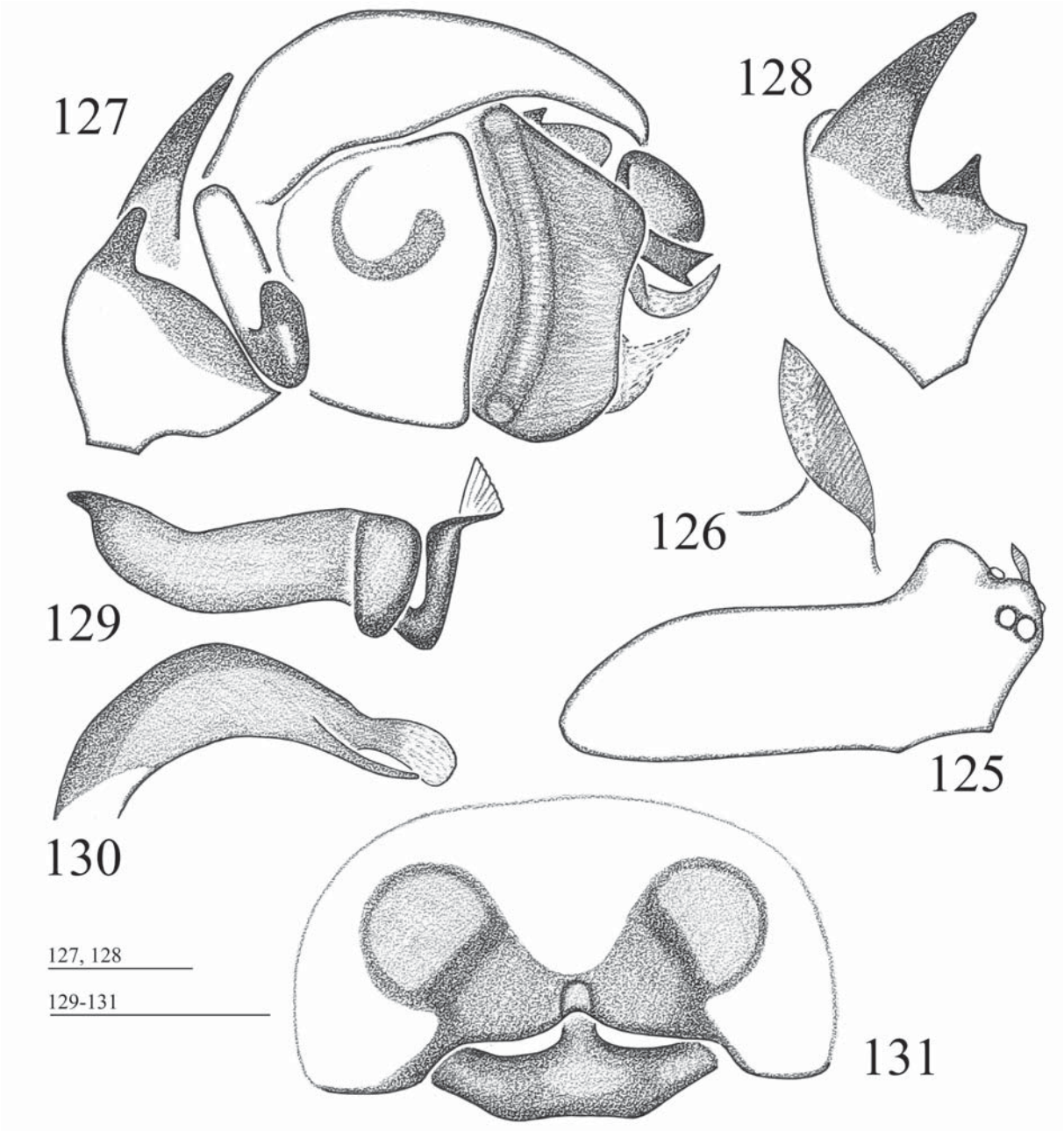
TAXONOMIC REMARKS. The palp and epigyne of the Altai specimens are virtually identical to those of the Alpine *S. antennatus*, but the shape of the male carapace elevation is different (cf. Figs 106, 107 & Figs 108, 109), strongly resembling the carapace ascribed to *S. eutypus* (Chamberlin, 1948) by Saito, Yasuda [1988, fig. 18] from Japan. Actually, *S. antennatus* is very similar to *S. eutypus* and, based on the available pictures, differs by the shape of the tip of the radical tailpiece, this being pointed in *S. eutypus*, but with a small hollow in *S. antennatus* (cf. Figs 112, 114, 115 & Fig. 116, shown by arrows). Concerning *S. eutypus* from Japan, in my opinion it belongs to *S. antennatus*.

Scotinotylus protervus (L. Koch, 1879)

2011 *Scotinotylus protervus*. — Fomichev, Marusik: 119.

2013 *S. protervus*. — Azarkina, Trilikauskas: 59.

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, stony slope, 1800 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♀♀ (CAT), Pass Seminskiy, 1800–2000 m, 27.VII.1990, leg. S. Ovtchinnikov; 3 ♀♀ (CAT), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas, ca. 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 1 ♂ (ZMT), 32 km SW of Ust'-Koksa, upper reaches of Petrushkina River, 1430–1500 m, alpine belt, 5–6.VI.2005, leg. R. Dudko; 1 ♂ (ZMT), 25 km SSW of Ust'-Koksa, Mt. Kabanukha, 2050–2096 m, alpine belt, 30.V.2005, leg. R. Dudko; 2 ♀♀ (CAT), S macroslope of Terektinskiy Mt. Ridge, upper reaches of Kastakhanka River, 2000–2400 m, mountain tundra, VI.1999, leg. A. & R. Dudko; 2 ♂♂, 2 ♀♀ (CAT), 50 km W of Kosh-Agach, 20–25 km W of Beltir, Shaltra Plateau, 2700–2800 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 64 ♂♂, 3 ♀♀ (CAT), 50 km W of Kosh-Agach, 20–25 km W of Beltir, Taltura (= Chagan-Uzun) River Canyon, 2100–2200 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 1 ♀ (CAT), 50 km W of Kosh-Agach, 20–25 km W of Beltir, Taltura (= Chagan-Uzun) River Canyon, 2100–2200 m, mountain stony steppe, 25–30.VI.1999, leg. D. Logunov; 8 ♀♀ (CAT), 40–45 km E of Kosh-Agach, Saylyugem mountain massif, 2600–2800 m, mountain moss-*Dryas* tundra, 24–25.VI.1999, leg. D. Logunov; 4 ♀♀ (CAT), between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2600–3000 m, mountain tundra, 1–2.VII.1996, leg. A. & R.



Figs 125–131. *Walckenaeria katanda* Marusik et al., 1996, specimen from Bannaya River, Altais: 125 — male carapace; 126 — "horn" (not to scale); 127 — right palp; 128 — palpal tibia, dorsal view; 129 — embolic division; 130 — suprategulum; 131 — epigyne, ventral view.

Рис. 125–131. *Walckenaeria katanda* Marusik et al., 1996, экземпляр с р. Банная, Алтай: 125 — карапакс самца; 126 — "рожек"; 127 — правая пальпа; 128 — голень пальпы, вид сверху; 129 — эмболюсный отдел; 130 — супратегулюм; 131 — эпигина, вид снизу.

Dudko; 1 ♀ (CAT), between Chagan-Burgazy and Tarkhata rivers, 4 km NNW of Mt. Chyornaya, 2400 m, alpine meadows, spring valley, 30.VI.1996, leg. A. & R. Dudko; 1 ♀ (CAT), between Chagan-Burgazy and Tarkhata rivers, foot of Mt. Kulunbazhi, 2600 m, mountain tundra, 29–30.VI.1996, leg. A. & R. Dudko; 5 ♀♀ (CAT), Katunskiy Mt. Ridge, Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin; 2 ♀♀ (CAT), N macroslope of Katunskiy Mt. Ridge, 12–15 km S of Multa, 2300–2800 m, mountain tundra, 23–24.VI.1999, leg. A. & R. Dudko; 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Charysh District, Tigiretskiy Mt. Ridge, Pass Ubinsly, 27.VII.1999, leg. G. Azarkina; 1 ♀ (CAT), upper reaches of Kurchyu River, mountain tundra, 2450 m, 3.VII.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), Ivanovskiy Mt. Ridge, 5 km SW of Mt. Vysheivanovskiy Belok, 1900 m, alpine meadow, 8.VI.1996, leg. R. Dudko; 1 ♀ (CAT), ca 12 km S of Leninogorsk, 2000 m, mountain tundra, 30 & 31.V.1996, leg. R. Dudko; 4 ♀♀ (CAT), Katunskiy Mt. Ridge, 5 km SE of Rakhmanovskiye Klyuchi, 2100–2500 m, alpine, 28.VI.1997, leg. R. Dudko & V. Zinchenko; 2 ♀♀ (CAT), Sarymsak-

ty Mt. Ridge, Sarymsakty River, mountain tundra, 2500–2800 m, 2.VI.1997, leg. R. Dudko & V. Zinchenko; 1 ♀ (CAT), W of Tarbagatai Mt. Ridge, Pass Burkhat, 2200–2300 m, 22.VI.1997, leg. R. Dudko & V. Zinchenko; 5 ♀♀ (CAT), Kurchyumskiy Mt. Ridge, 10 km WSW of Aksubas, pass near the upper reaches of Topolyovka River, subalpine, 2500 m, 4.VII.1997, leg. R. Dudko & V. Zinchenko; 4 ♀♀ (CAT), environs of Lake Markakol', 10 km ESE of Urunkhayka, 2200–2400 m, alpine, 19–20.VI.1997, leg. R. Dudko & V. Zinchenko.

RECORDS FROM THE ALTAIS. RUSSIA: Kuraisky Mt. Ridge [Fomichev, Marusik, 2011], Korgon Mt. Ridge, Kumir River [Azarkina, Trilikauskas, 2013].

PATTERN. Siberian-West Nearctic.

Scotinotylus sacer (Crosby, 1929)

MATERIAL. 3 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. This is the southernmost locality in the species' known distribution. New to the Altai fauna.

PATTERN. Siberian-Nearctic.

Semljicola angulatus (Holm, 1963)

MATERIAL. 1 ♂, 1 ♀ (CAT), RUSSIA, Katunskiy N.R., 1650–2200 m, 2–4.VIII.1994, leg. A. Ryvkin.

REMARKS. The species is new to the Altai fauna.

PATTERN. Fennoscandian-Siberian.

Semljicola latus (Holm, 1939)
Figs 119–124.

1996 *Latithorax latus*. — Marusik et al.: 33.

2004 *Semljicola latus*. — Levina, Mikhailov: 46, re-examined.

MATERIAL. 3 ♂♂, 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., upper reaches of Chiri River, *Picea obovata* forest, litter, moss, 1350 m, 18.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), Ust'-Kan, upper reaches of Charysh River, 1400 m, *Larix*, *Picea* forest, litter, rotten wood, 27.VII.1994, leg. S. Golovatch & A. Ryvkin; 2 ♂♂, 1 ♀ (CAT), 8 km S Ust'-Kan, upper reaches of Aksas River, 1900–2000 m, subalpine and mountain tundra, 8–9.VI.1999, leg. A & R. Dudko; 3 ♀♀ (ZMT, det. as *Eboria* sp.), Kuragan, *Sphagnum*, 24.VII.1983, leg. H. Hippa, (det. as *Eboria* sp.); 2 ♀♀ (ZMT, as *Eboria* sp.), Katanda, *Sphagnum*, 30.VI.1983, leg. H. Hippa; 5 ♀♀, Katunskiy Mt. Ridge, Katunskiy N.R., 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan, Bertkem & Katanda [Marusik et al., 1996]; Katunskiy N.R. [Levina, Mikhailov, 2004].

PATTERN. Fennoscandian-Siberian.

Silometopus uralensis Tanasevitch, 1985

2004 *Silometopus uralensis*. — Levina, Mikhailov: 46, re-examined.

2004 *Minicia uralensis*. — Levina, Mikhailov: 46, misidentification, re-examined.

MATERIAL. 16 ♂♂, 25 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 21 ♂♂, 25 ♀♀ (CAT), near Lake Chiri, stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 6 ♂♂, 7 ♀♀ (CAT), Katunskiy Mt. Ridge, Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Baltyrgan & Katunskiy N.R. [Levina, Mikhailov, 2004, as *Minicia uralensis*, partly].

PATTERN. West & South Siberian.

Stemonyphantes altaicus Tanasevitch, 2000

2000 *Stemonyphantes altaicus* Tanasevitch: 244, figs 1–5, ♂, ♀.

MATERIAL. 6 ♂♂, 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Kholzun Mt. Ridge, upper reaches of Bannaya River, 1300–1600 m, forest, pitfall traps, 12–14.VI.1999, leg. A. & R. Dudko; 1 ♂ (ZMT), 32 km SW of Ust'-Koksa, E of Mt. Krasnaya, 2000–2500 m, alpine belt, 4.VI.2005, leg. R. Dudko; 1 ♀ (ZMT), 24 km SSW of Ust'-Koksa, NE slope of Mt. Kabanukha, 1850–1950 m a.s.l, forest (50°05′N, 85°24′E), 28–29.VI.2005, leg. R. Dudko; 2 ♂♂, 2 ♀♀ (ZMT), 23 km SW of Ust'-Koksa, near Maralovodka (50°05′N, 85°25′E), 1500 m, 27.V.2005, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Tesninskiy Belok [Tanasevitch, 2000b].

REMARKS. *Stemonyphantes altaicus* has hitherto been known only from mountain forests and alpine biotopes in the Altais (1300–2300 m. a.s.l.), but recently it has also been found in a *Stipa* steppe of the Orenburg Area, southern Urals [Esyunin, 2008].

PATTERN. Scythian.

Styloctetor logunovi Eskov et Marusik, 1994

MATERIAL. 2 ♀♀ (CAT), RUSSIA, 2–3 km NE of Kuray, 1100 m, dry *Artemisia* & *Festuca* steppe, 23–30.VI.1999, leg. D. Logunov; 2 ♂♂, 1 ♀ (ZMMU), KAZAKHSTAN, East Kazakhstan Area, Ust'-Kamenogorsk, Sogra, 19.IX.1970, collector unknown; 1 ♀♀ (CAT), west branches of Narymskiy Mt. Ridge, 20 km N of Kurchyum, steppe, 5.V.1999, leg. R. Dudko.

COMPARATIVE MATERIAL EXAMINED. 2 ♂♂, 3 ♀♀ (CAT), RUSSIA, Irkutsk Area, Lake Baikal, Bay Begul, 8.VII.1993, leg. S. Danilov (**new locality**).

REMARKS. Ust'-Kamenogorsk is the westernmost locality of the species' known distribution. New to the Altai fauna.

PATTERN. South Siberian.

Styloctetor stativus (Simon, 1881)

1996 *Ceratinopsis stativa*. — Marusik et al.: 32, re-examined.

2004 *C. stativa*. — Levina, Mikhailov: 44, reference.

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, mountain tundra, 2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch.

PREVIOUS RECORDS. RUSSIA: Katanda [Marusik et al., 1996].

PATTERN. Holarctic.

Thaleria sajanensis Eskov et Marusik, 1991

1996 *Thaleria sajanensis*. — Marusik et al.: 34.

2004 *T. sajanensis*. — Levina, Mikhailov: 46, re-examined.

MATERIAL. 1 ♂, 1 ♀ (CAT), RUSSIA, Teletskoye Lake, Altayskiy N.R., near Lake Chiri, stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch.

RECORDS FROM THE ALTAIS. RUSSIA: Bertkem & Katanda [Marusik et al., 1996]; Mt. Baltyrgan, Katunskiy N.R. [Levina, Mikhailov, 2004].

PATTERN. South Siberian.

Tenuiphantes alacris (Blackwall, 1853)

1996 *Lepthyphantes alacris*. — Marusik et al.: 33.

2004 *L. alacris*. — Levina, Mikhailov: 45, reference.

MATERIAL. 1 ♂ (ZMMU), RUSSIA, 25 km SSW of Ust'-Koksa, Mt. Kabanukha, 2050–2100 m, 50º4.5'N 85º23'E, alpine belt, 29–30.V.2005, leg. R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan [Marusik et al., 1996].

PATTERN. European-Siberian.

Tenuiphantes cristatus (Menge, 1866)

MATERIAL. 2 ♀♀ (CAT), RUSSIA, Charysh District, environs of Sentelek, 600 m, V.1999, leg. G. Azarkina.

REMARKS. The species is new to the Altai fauna.

PATTERN. West Palaearctic.

Tenuiphantes suborientalis Tanasevitch, 2000

2000 *Tenuiphantes suborientalis* Tanasevitch: 245, figs 18–23, ♂ & ♀.

MATERIAL. 1 ♂ (ZMMU, as *Improphantes improbulus*), RUSSIA, 25 km SSW of Ust'-Koksa, Mt. Kabanukha, 2050–2096 m, 50º4.5′N 85º23′E, alpine belt, 29–30.V.2005, leg. R. Dudko; 1 ♂ (ZMMU, as *Improphantes improbulus*), 32 km SSW of Ust'-Koksa, upper reaches of Petrushkina River, 1400–1500 m, 50º03′N 85º22′E, 5–6.VI.2005, leg. R. Dudko.

ADDITIONAL MATERIAL EXAMINED. 1 ♂ (ZMMU, as *Improphantes improbulus*), Tuva, Academic Obruchev Mt. Ridge, upper reaches of Unzhey and Khan rivers, 2200–2500 m, tundra, 21–26.VI.2005, leg. R. Dudko (**new locality**).

RECORDS FROM THE ALTAIS. RUSSIA: Rakhmanovskiye Klyuchi, Sarymsakty River Valley & Topolyovka River [Tanasevitch, 2000].

REMARKS. The species is new to the Tuvan fauna.

PATTERN. South Siberian.

Thyreosthenius parasiticus (Westring, 1851)

1996 *Thyreosthenius biovatus*. — Marusik et al.: 34, misidentification, re-examined.

2004 *T. biovatus*. — Levina, Mikhailov: 46, reference.

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Artybash, *Picea obovata*, *Abies sibirica*, *Pinus sibirica* taiga forest, 500–800 m, 13–24.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Akhzas, ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 1 ♀ (CAT), Katunskiy Mt. Ridge, Katunskiy N.R., 1650–2200 m, 1–5.VII.1994, leg. A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Kuragan & Katanda [Marusik et al., 1996, as *Thyreosthenius biovatus*].

REMARKS. The species is new to the Altai fauna.

PATTERN. Holarctic.

Tmeticus nigriceps (Kulczyński, 1916)

MATERIAL. 1 ♀ (CAT), RUSSIA, 2 km NE of Kosh-Agach, 1700–1800 m, 27.VI.1996, leg. A. & R. Dudko.

REMARKS. This is the southernmost locality in species' known distribution. The species is new to the Altai fauna.

PATTERN. Siberian.

Trichoncoides piscator (Simon, 1884)

MATERIAL. 3 ♀♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, E of Bukhtarminskoye Reservoir, 10 km SSW of Slavyanka, 500–600 m, steppe, 8.V.1998, leg. R. Dudko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Ancient Mediterranean.

Typhochrestoides baikalensis Eskov, 1990

1996 *Typhochrestoides baikalensis*. — Marusik et al.: 35, re-examined.

2004 *T. baikalensis*. — Levina, Mikhailov: 47, re-examined.

MATERIAL. 3 ♂♂ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., upper reaches of Chiri River, *Picea obovata* forest, litter, moss, 1350 m, 18.VII.1997, leg. A. Tanasevitch & S. Golovatch; 6 ♂♂, 8 ♀♀ (CAT), near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch; 2 ♂♂, 2 ♀♀ (CAT), near Lake Chiri, stony slope, 1800 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch; 1 ♂ (CAT), Ust'-Kan District, Tyuguryuk Mt. Ridge, Pass Aksas ca 15 air-km SE of Yabogan, 1700 m, *Larix*, *Picea*, *Pinus sibirica* taiga forest, 28–29.VIII.1996, leg. S. Golovatch; 2 ♀♀ (ZMT, as *Perregrinus deformis*), Katunskiy N.R., Bertkem, 2000 m, alpine, 13.VII.1983, leg. H. Hippa; 2 ♀♀ (ZMT, as *P. deformis*), Bertkem, 10.VII.1983, leg. H. Hippa; 1 ♂, 4 ♀♀ (ZMMU), Katunskiy N.R., Katunskiy Mt. Ridge, Lake Srednyeye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin.

RECORDS FROM THE ALTAIS. RUSSIA: Bertkem [Marusik et al., 1996]; Mt. Baltyrgan [Levina, Mikhailov, 2004].

PATTERN. West & South Siberian.

Walckenaeria alticeps (Denis, 1952)

MATERIAL. 2 ♀♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Samarskoye District, Kaindinskiy Bor, 700–900 m, 26–28.VIII.1985, leg. A. Fedorov; 1 ♀ (ZMMU), Kalbinskiy Mt. Ridge, upper reaches of Kopirli River, 20 km SSE of Lake Verkhnee Tainty, 1200 m, 10.V.1999, leg. R. Dudko, V. Zinchenko & I. Lyubechansky.

ADDITIONAL MATERIAL EXAMINED. 1 ♀ (CAT), RUSSIA, Novosibirsk Area, Toguchin District, environs of Kotorovo Village, *Abies* forest, 9.VII.1986, leg. A. & R. Dudko (**new locality**).

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Walckenaeria antica (Wider, 1834)

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Walckenaeria capito (Westring, 1861)

MATERIAL. 1 ♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A.

Table 1. Zoogeographical elements among the Altai linyphiids
Таблица 1. Зоогеографические элементы и их соотношение в фауне линифиид Алтая

Distribution pattern	Abbreviation	Number of species	Percentage
Widespread pattern group		122	58.1%
Palaearctic	P	38	18.1%
Holarctic	H	34	16.2%
European-Siberian	E-S	15	7.1%
Fennoscandian-Siberian	F-S	10	4.8%
Palaearctic – West Nearctic	P-WN	6	2.9%
Siberian – West Nearctic	S-WN	5	2.4%
Fennoscandian-Siberian – West Nearctic	F-S-WN	5	2.4%
Fennoscandian-Siberian-Nearctic	F-S-N	3	1.4%
East Palaearctic – Nearctic	EP-N	3	1.4%
Siberian-Nearctic	S-N	2	1.0%
West Palaearctic – Nearctic	WP-N	1	0.5%
Siberian pattern group		50	23.8%
Siberian	S	22	10.5%
South Siberian	SS	16	7.6%
West & South Siberian	W&SS	7	3.3%
Central & South Siberian	C&SS	2	1.0%
South Siberian – Far Eastern	SS-FE	2	1.0%
East European – West & South Siberian	EE-W&SS	1	0.5%
European pattern group		12	5.7%
European – South Siberian	E-SS	5	2.4%
European – Ancient Mediterranean	E-AM	4	1.9%
Ancient Mediterranean	AM	2	1.0%
West European-Altai	WE-A	1	0.5%
Other pattern group		18	8.6%
Altai (presumed endemics)	A	8	3.8%
West Palaearctic	WP	8	3.8%
East Palaearctic	EP	5	2.4%
South & East Siberian – West Nearctic	S&ES-WN	2	1.0%
Central Palaearctic	CP	1	0.5%
South-Eastern Palaearctic	SEP	1	0.5%
Scythian	Sc	1	0.5%

Abbreviations: A — Altai (presumed endemic), AM — Ancient Mediterranean, C&SS — Central & South Siberian, CP — Central Palaearctic, E-AM — European-Ancient Mediterranean, EE-W&SS — East European-West & South Siberian, EP — East Palaearctic, EP-N — East Palaearctic-Nearctic, E-S — European-Siberian, E-SS — European-South Siberian, F-S — Fennoscandian-Siberian, F-S-N — Fennoscandian-Siberian-Nearctic, F-S-WN– Fennoscandian-Siberian-West Nearctic, H — Holarctic, P — Palaearctic, P-WN — Palaearctic-West Nearctic, S — Siberian, S&ES-WN — South & East Siberian-West Nearctic, Sc — Scythian, SEP — Southeast Palaearctic, S-N — Siberian-Nearctic, SS — South Siberian, SS-FE — South Siberian-Far Eastern, S-WN — Siberian-West Nearctic, W&SS — West & South Siberian, WE-A — West European-Altai, WP — West Palaearctic, WP-N — West Palaearctic-Nearctic.

Tanasevitch & S. Golovatch; 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, 5 km S of Mt. Vysheivanovskiy Belok, 2000–2500 m, mountain tundra, 7.VI.1996, leg. R. Dudko; 1 ♀ (CAT), E part of Azutau Mt. Ridge, 10 km SW of Urunkhayka, 2200–2300 m, alpine, 18.VI.1997, leg. R. Dudko & V. Zinchenko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Holarctic.

Walckenaeria katanda Marusik, Hippa et Koponen, 1996

Figs 125–131.

1996 *Walckenaeria katanda* Marusik et al.: 20, figs 39–42, ♀, re-examined.

2004 *W. katanda*. — Levina, Mikhailov: 47, re-examined.

2012 *W. katanda*. — Trilikauskas: 228.

MATERIAL. 2 ♂♂, 1 ♀ (CAT) RUSSIA, Mt. Kholzun, environs of Katanda, upper reaches of Bannaya River, 1300–1600 m, forest, 12–14.VI.1999, leg. A. & R. Dudko; 2 ♀♀ (CAT), Katunskiy N.R., Lake Sredneye Multinskoye, 10 km SE of Ust'-Koksa, 1600–2200 m, 30.VII.–5.VIII.1994, leg. S. Golovatch & A. Ryvkin; 1 ♂, 1 ♀ (CAT), Katunskiy N.R., 1900–2200 m, 2–4.VIII.1994, leg. A. Ryvkin; 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, 5 km SW of Mt. Vysheivanovskiy Belok, 1500–1600 m, *Pinus* & *Larix* forest, 5–6.VI.1996, leg. R. Dudko.

REMARKS. This species was described from two females from Katanda [Marusik et al., 1996]. The description was supplied with figures of two different shapes of the epigyne. A restudy of the type material, deposed in ZMT, shows the holotype to correspond to Fig. 40 in Marusik et al. [1996].

DESCRIPTION. Male (from Katanda). Total length 2.90. Carapace 1.25 long, 0.75 wide, brown-red. Ceph-

Table 2. Proportions of the main zoogeographical groups of linyphiid spiders in the vertical belts in the Altais
Таблица 2. Соотношение основных зоогеографических групп пауков-линифиид в высотных поясах Алтая

Altitudinal belt	Elevations (m a.s.l.)	Total number of species per belt	Number of widespread elements	Number of Siberian elements	Ratio of widespread to Siberian elements
Entire vertical profile	130–3100 m	210	111	61	1.8
Low mountains	1000 m and lower	137	89	26	3.4
Middle mountains	1000–2000 m	151	92	38	2.4
Alpine	2000–2500 m	71	40	20	2.0
Mountain tundra	2500–3000 m	24	13	8	1.6
Nival	3000 m and higher	13	8	2	4.0

alic part with an elevation behind ocular area (Fig. 125). Ocular area with a pair of feather-shaped horns (Figs 125, 126). Chelicerae 0.40 long. Legs yellow-red. Leg I, 3.12 long (0.75 + 0.28 + 0.88 + 0.73 + 0.48), IV, 3.69 long (1.00 + 0.28 + 1.03 + 0.88 + 0.50). Chaetotaxy 2.2.1.1 (in the original description, chaetotaxy erroneously referred to as 1.1.1.1). Tm I 0.47. Palp as in Figs 127–130. Abdomen 1.65. long, 0.90 wide, dark grey. Epigyne as in Fig. 131.

RECORDS FROM THE ALTAIS. RUSSIA: Katun' & Katanda [Marusik et al., 1996]; Katunskiy N.R. [Levina, Mikhailov, 2004]; Lake Teletskoye, Altaiskiy N.R. [Trilikauskas, 2012].

PATTERN. Altai.

Walckenaeria koenboutjei Baert, 1994

2004 *Walckenaeria koenboutjei*. — Levina, Mikhailov: 47, re-examined.

MATERIAL. 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altayskiy N.R., near Artybash, *Populus* & *Pinus sibirica* taiga forest, 500–800 m, 7.VII.1997, leg. A. Tanasevitch & S. Golovatch.

ADDITIONAL MATERIAL EXAMINED. 1 ♀ (CAT), RUSSIA, SE of Khakassia, Abakanskiy Mt. Ridge, Choochek Mt. Ridge, SSE of Mrassu, mountain tundra, 1600–1800 m, 7–19.VII.1999, leg. D. Lomakin; 2 ♂♂ (CAT), lower reaches of Bolshoy Abakan River, Konsu River, 20 km SE of Mrassu, 750 m, 26.VII.–11.VIII.1999, leg. D. Lomakin; 2 ♀♀ (CAT), S of Kemerovo Area, Gornaya Shoriya, 10 km N of Sheregesh, Mt. Pustag, timberline, 900 m, 21–27.VI.1999, leg. D. Lomakin (**all new localities)**.

RECORDS FROM THE ALTAIS. RUSSIA: Gorno-Altaysk [Levina, Mikhailov, 2004].

PATTERN. South Siberian.

Walckenaeria nodosa O. Pickard-Cambridge, 1873

MATERIAL. 1 ♀ (CAT), KAZAKHSTAN, East Kazakhstan Area, Ivanovskiy Mt. Ridge, ca 12 km S of Leninogorsk, 2000 m, mountain tundra, 30–31.V.1996, leg. R. Dudko; 2 ♂♂ (CAT), 25 km NE of Ust'-Kamenogorsk, Ulba River, Topikha, 300–400 m, 11–13.VIII.1997, leg. R. Dudko & V. Zinchenko.

REMARKS. The species is new to the Altai fauna.

PATTERN. Palaearctic.

Walckenaeria picetorum (Palmgren, 1976)

MATERIAL. 2 ♀♀ (CAT), RUSSIA, Lake Teletskoye, Altaiskiy N.R., near Lake Chiri, upper timberline of *Picea obovata*, *Pinus sibirica*, litter, moss, 1700–1750 m, 29.VII.–1.VIII.1997, leg. A. Tanasevitch & S. Golovatch.

REMARKS. The species is new to the Altai fauna.

PATTERN. Fennoscandian-Siberian.

Walckenaerianus aimakensis Wunderlich, 1995

MATERIAL. RUSSIA: 8 ♀♀, RUSSIA, Lake Teletskoye, Altayskiy N.R., near Lake Chiri, stony slope & mountain tundra, 1800–2000 m, 30.VII.1997, leg. A. Tanasevitch & S. Golovatch.

ADDITIONAL MATERIAL EXAMINED. 3 ♂♂, 4 ♀♀ (CAT), RUSSIA, Tuva, near Azas, 19.VI.1991, leg. A. Ryvkin (**new locality**).

REMARKS. Lake Teletskoye is the westernmost locality of the species' known distribution. *W. aimakensis* is new to the Altai fauna.

PATTERN. South & East Siberian – West Nearctic.

Walckenaerianus esyunini Tanasevitch, 2004

2010 *Walckenaerianus esyunini*. — Tanasevitch: 281.

MATERIAL. 1 ♀ (CAT), RUSSIA, between Chagan-Burgazy and Tarkhata rivers, Mt. Kulunbazhi, 2600 m, mountain tundra, 29–30.VI.1996, leg. A. & R. Dudko.

RECORDS FROM THE ALTAIS. RUSSIA: Mt. Chyornaya [Tanasevitch, 2010].

PATTERN. Ancient Mediterranean.

Mongolian Altai

In the South, the Altais are adjoined by the Mongolian Altais, an area whence only four linyphiid species have been registered: *Agnyphantes expunctus* (O. Pickard-Cambridge, 1875), *Erigone atra* Blackwall, 1833, *Microlinyphia pusilla* (Sundevall, 1830) and *Dactylopisthes diphyus* (Heimer, 1987) (referred to as *Walckenaeria dentata* Zhu et Zhou, 1988) [Hu, Wu, 1989]. All of these species, except the last one, are present in the linyphiid list of the Russian and Kazakhstanian parts of the Altais as well.

A short discussion

A detailed chorological analysis of the Altai linyphiid fauna will be given elsewhere. Only its main features will be reiterated here.

The Altai linyphiid fauna is currently known to contain 210 species. This corresponds well to the the

number of linyphiid species known from the adjacent Tuva (213 species), also a mountainous country. In spite of the proximity, these faunas can hardly be termed similar, since the number of shared species (136) amounts to half of the faunas combined (283), with 65% of the common species being represented by widespread elements and devoid of any shared endemics.

The group of the Altai "presumed endemics" contains eight species, all hitherto encountered only there. However, at least some may well appear to be distributed more widely at least in the mountains of South Siberia, i.e. *Bolyphantes distichoides*, *Halorates altaicus* sp.n., *Hilaira meridionalis* sp.n., *Incestophantes altaicus*, *Incestophantes brevilamellus* sp.n., *Mecynargus minutus* sp.n., *Mughiphantes sobrioides* and *Walckenaeria katanda*.

In a zoogeographical aspect, the linyphiid fauna of the Altais is rather varied, albeit quite clearly dominated by two groups of patterns, i.e. those composed of widespread or Siberian elements (see Tab. 1). The most important and interesting characters of the Altai linyphiid fauna are as follows:

– An evident predominance of widespread species amounting to almost 60% of the entire linyphiid fauna.

– The absence of many typical Siberians, such as *Agyneta affinisoides* Tanasevitch, 1984, *Anguliphantes dybowskii* (O. Pickard-Cambridge, 1873), *A. karpinskii* (O. Pickard-Cambridge, 1873), *Concavocephalus rubens* Eskov, 1989, *Holminaria prolata* (O. Pickard-Cambridge, 1873), *Improphantes flexilis* (Tanasevitch, 1986), *Maro pansibiricus* Tanasevitch, 2006, *M. saaristoi* Eskov, 1980, *Mughiphantes taczanowskii* (O. Pickard-Cambridge, 1873), etc.

– A relatively small number of South Siberian species, for example, *Agyneta kaszabi* (Loksa, 1965), *Epigytholus kaszabi* (Wunderlich, 1995), *Episolder finitimus* Tanasevitch, 1996, *Erigonoplus sibiricus* Eskov et Marusik, 1997; some others are absent from the Altais.

– The absence of Central Asian elements or their derivatives.

– The Altais are a gate for the penetration of European species to South Siberia. Part of these elements settled in the Altais, i.e. *Agyneta simplicitarsis* (Simon, 1884), *Caviphantes saxetorum*, *Improphantes improbulus* (Simon, 1929), *Macrargus rufus* (Wider, 1834), *Tapinocyboides pygmaeus*, etc.; others got even more easterly into Tuva and/or the Sayan, e.g. *Acartauchenius scurrilis* and *Mughiphantes cornutus*.

– The Altais are the westernmost area in the known distributions of *Agyphantes sajanensis*, *Ceraticelus orientalis*, *Gonatium pacificum*, *Poeciloneta petrophila*, *Styloctetor logunovi* and *Walckenaerianus aimakensis*, as well as the southernmost occurrences of *Erigone arcticola*, *Islandiana falsifica*, *Scotinotylus sacer* and *Tmeticus nigriceps*.

– Most of the presumed Altai endemics are clearly of Siberian origins, some of them being counterparts to Arctic species, e.g. *Halorates altaicus* sp.n. – *H. holmgreni*, *Mughiphantes sobrioides* – *M. sobrius*.

– The absence of many typical Siberian species and a considerable proportion of European elements penetrating into the Altais seem to be evidence of a transitional character of the fauna.

The vertical distribution of Altai linyphiids is rather well studied, being shown in Tabs 2 & 3.

Species from the widespread species group predominate in all vertical belts (Tab. 2), in the nival zone 4 times outnumbering the Siberian faunistic elements. These latter dominate among the species that fail to get below the timberline (about 2000 m a.s.l.), twice outnumbering the widespread species there. Presumed endemics (except *Walckenaeria katanda*) tend to occur only in the highlands (1700–2800 m a.s.l.).

Species from the European species group appear to be scattered almost all along the vertical profile, but some of them, *Walckenaerianus esyunini* and *Erigone arctica maritima*, have only been found in the mountain tundra and/or nival zone.

Arcto-alpine species, *Erigone arcticola*, *E. remota* and *Hilaira glacialis*, occur exclusively in highlands up to the highest elevations explored (3100 m a.s.l.). Similarly, the counterparts of arctic species, *Halorates altaicus* sp.n. and *Mughiphantes sobrioides*, live only above the timberline.

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Table 3. Checklist and chorology of the Altai linyphiids
Таблица 3. Список пауков-линифиид Алтая и их хорология
All available data on altitudinal distributions have been taken into account. Abbreviations see under Tab. 1.

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution patterns
	min	max	
Abacoproeces saltuum (L. Koch, 1872)	900	1450	E-S
Abiskoa abiskoensis (Holm, 1945)	500	800	F-S
Acartauchenius scurrilis (O. P.-Cambr., 1872)	1200	1200	E-AM
Agnyphantes expunctus (O. P.-Cambr., 1875)	1100	2200	E-S
Agyneta affinis (Kulcz., 1898)	450	1000	P
A. allosubtilis Loksa, 1965	300	2000	S-N
A. conigera (O. P.-Cambr., 1863)	300	400	P
A. fuscipalpa (C.L. Koch, 1836)	300	400	WP
A. levii Tan., 1984	900	1000	S
A. olivacea (Em., 1882)	900	1600	H
A. pseudosaxatilis Tan., 1984	1650	2000	S
A. ripariensis Tan., 1984	2000	2100	S
A. saaristoi Tan., 2000	300	2100	CP
A. simplicitarsis (Simon, 1884)	300	400	E-S
A. tibialis Tan., 2005	1700	1700	S
Agyphantes sajanensis (Eskov et Marusik, 1994)	500	800	SS
Allomengea dentisetis (Grube, 1861)	400	500	EP-N
A. scopigera (Grube, 1859)	500	1700	P-WN
Anguliphantes cerinus (L. Koch, 1879)	400	1750	S
A. sibiricus (Tan., 1986)	500	1900	W&SS
Arachosinella oeroegensis Wunderlich, 1995	1600	1650	SS
Araeoncus crassiceps (Westr., 1861)	1800	2800	E-S
A. vorkutensis Tan., 1984	500	2450	S
Bathylinyphia major (Kulcz., 1885)	600	2500	EP
Bathyphantes eumenis (L. Koch, 1879)	500	2300	H
B. gracilis (Bl., 1841)	400	600	H
B. nigrinus (Westr., 1851)	400	800	E-S
B. reprobus (Kulcz., 1916)	1500	1900	F-S-N
Bolyphantes alticeps (Sund., 1832)	300	2200	P
B. distichoides Tan., 2000	1700	1750	A
B. distichus (Tan., 1986)	500	2300	SS
Carorita limnaea (Crosby et Bishop, 1927)	1000	2000	H
Caviphantes saxetorum (Hull, 1916)	900	1000	E-SS
Centromerus clarus (L. Koch, 1879)	400	2200	S
C. levitarsis (Simon, 1884)	400	400	E-S
C. sylvaticus (Bl., 1841)	400	2200	H
Ceraticelus orientalis Eskov, 1987	550	2000	SS-FE
Ceratinella brevipes (Westr., 1851)	500	1500	P
C. brevis (Wider, 1834)	300	800	P
C. scabrosa (O. P.-Cambr., 1871)	500	1500	E-S
C. wideri (Thorell, 1871)	500	1500	P

Table 3 (continuation)
Таблица 3 (продолжение)

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution pattern
	min	max	
Cnephalocotes obscurus (Bl., 1834)	1700	2100	H
Decipiphantes decipiens (L. Koch, 1879)	500	2200	F-S
Dicymbium facetum (L. Koch, 1879)	900	2800	S
D. nigrum (Bl., 1834)	300	500	WP
Diplocentria bidentata (Em., 1882)	700	2000	H
D. rectangulata (Em., 1915)	900	2000	H
Diplocephalus connatus Bertkau, 1889	300	400	E-S
D. cristatus (Bl., 1833)	1800	2200	H
D. subrostratus (O. P.-Cambr., 1873)	500	1100	EP-N
Diplostyla concolor (Wider, 1834)	450	2200	H
Dismodicus bifrons (Bl., 1841)	400	1500	E-S
Drapetisca socialis (Sund., 1832)	300	900	P
Drepanotylus borealis Holm, 1945	800	2300	F-S
Entelecara acuminata (Wider, 1834)	500	800	EP
E. erythropus (Westr., 1851)	500	600	P
Erigone arctica maritima Kulcz., 1902	2500	3000	WE-A
E. arcticola Chamerlin et Ivie, 1947	2400	3100	S-WN
E. atra Bl., 1833	500	2500	H
E. capra Simon, 1884	1800	2300	P-WN
E. cristatopalpus Simon, 1884	1800	3000	H
E. dentipalpis (Wider, 1834)	300	1700	H
E. hypoarctica Eskov, 1989	500	800	S
E. remota L. Koch, 1869	1900	3100	P
E. sinensis Schenkel, 1936	1850	1850	SEP
E. tenuimana Simon, 1884	1890	3000	E-A
Estrandia grandaeva (Keys., 1886)	500	1750	H
Evansia merens O. P.-Cambr., 1900	1100	1100	P
Flagelliphantes bergstroemi (Schenkel, 1931)	300	2400	F-S
Floronia bucculenta (Cl., 1758)	300	800	P
Frontinellina frutetorum (C.L. Koch, 1834)	300	400	WP
Gnathonarium taczanowskii (O. P.-Cambr., 1873)	300	1100	EP-N
Gonatium pacificum Eskov, 1989	2400	3100	SS-FE
G. rubellum (Bl., 1841)	400	2400	P
G. rubens (Bl., 1833)	600	3000	P
Gongylidiellum murcidum Simon, 1884	400	400	P
Gongylidium rufipes (L., 1758)	300	1100	P
Halorates altaicus sp.n.	2000	2250	A
H. caliginosus (L. Koch, 1879)	900	2000	EP
H. distinctus (Simon, 1884)	900	2000	E-S
H. inerrans (O. P.-Cambr., 1885)	900	1650	P
Helophora insignis (Bl., 1841)	300	1600	H

Table 3 (continuation)
Таблица 3 (продолжение)

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution pattern
	min	max	
Hilaira glacialis (Thorell, 1871)	2400	3100	S
H. herniosa (Thorell, 1875)	1100	2800	H
H. meridionalis sp.n.	2400	3300	A
Horcotes strandi (Sytshevskaja, 1935)	1700	2100	F-S-WN
Hylyphantes graminicola (Sund., 1830)	300	800	P
H. nigritus (Simon, 1881)	300	600	P
Hypomma bituberculatum (Wider, 1834)	600	1750	P
Hypselistes jacksoni (O. P.-Cambr., 1902)	400	1500	P-WN
Improphantes complicatus (Em., 1882)	1700	1700	H
I. improbulus (Simon, 1929)	1400	2500	E-SS
Incestophantes altaicus Tan., 2000	1800	1800	A
I. bonus Tan., 1996	2100	2800	SS
I. brevilamellus sp.n.	2600	2800	A
I. tuvensis Tan., 1996	1600	3000	SS
Islandiana falsifica (Keys., 1886)	2400	3100	F-S-WN
Ivielum sibiricum Eskov, 1988	450	600	S-WN
Kaestneria pullata (O. P.-Cambr., 1863)	1500	1500	H
Lasiargus hirsutus (Menge, 1869)	450	2600	P
L. pilipes (Kulcz., 1908)	800	1200	S
Lepthyphantes leprosus (Ohlert, 1867)	300	400	H
"*L*". *luteipes* (L. Koch, 1879)	300	1950	EP
Leptorhoptrum robustum (Westr., 1851)	400	2800	P-WN
Linyphia hortensis Sund., 1830	500	800	P
L. triangularis (Cl., 1758)	130	900	P
Macrargus multesimus (O. P.-Cambr., 1875)	500	2000	H
M. rufus (Wider, 1834)	2000	2250	E-SS
Maro sibiricus Eskov, 1980	900	1100	S
Maso sundevalli (Westr., 1851)	400	2200	H
Mecynargus minutus sp.n.	1900	2000	A
M. monticola (Holm, 1943)	1100	2000	F-S-WN
M. tungusicus (Eskov, 1981)	1700	1750	S-WN
Metopobactrus prominulus (O. P.-Cambr., 1872)	700	900	H
Micrargus herbigradus (Bl., 1854)	500	1950	P
Microlinyphia pusilla (Sund., 1830)	300	2000	H
Microneta viaria (Bl., 1841)	500	1100	H
Minicia marginella (Wider, 1834)	1950	1950	P
M. pallida Eskov, 1995	800	1000	SS
Minyrioloides trifrons (O. P.-Cambr., 1863)	500	2200	H
Minyriolus pusillus (Wider, 1834)	500	550	P
Mughiphantes cornutus (Schenkel, 1927)	900	2000	E-AM
M. sobrioides Tan., 2000	2500	2800	A
M. suffusus (Strand, 1901)	900	2000	F-S

Table 3 (continuation)
Таблица 3 (продолжение)

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution pattern
	min	max	
Nenilinium asiaticum Eskov, 1988	900	1000	S
Neriene clathrata (Sund., 1830)	300	1200	H
N. emphana (Walck., 1841)	130	1900	P
N. montana (Cl., 1758)	400	1100	H
N. radiata (Walck., 1842)	400	1100	H
Notioscopus sibiricus Tan., 2007	900	1700	S
Obscuriphantes pseudoobscurus (Marusik et al., 1996)	500	1500	EP
Oedothorax agrestis (Bl., 1853)	400	900	E-S
O. apicatus (Bl., 1850)	300	2100	E-AM
O. gibbosus (Bl., 1841)	450	600	WP
O. mongolensis (Heimer, 1987)	2000	2800	SS
O. retusus (Westr., 1851)	1000	2800	P
Oreoneta eskovi Saaristo et Marusik, 2004	1300	2800	C&SS
O. sajanensis Eskov, 1991	1900	2300	C&SS
O. vaginatus (Thorell, 1872)	1600	3100	H
Oryphantes geminus (Tan., 1982)	900	2000	EE-W&SS
Panamomops dybowskii (O. P.-Cambr., 1873)	500	2000	W&SS
P. tauricornis (Simon, 1881)	1600	2200	E-S
Pelecopsis dorniana Heimer, 1987	1600	2200	S
P. palmgreni Marusik et Esyunin, 1998	1400	2200	SS
Perregrinus deformis (Tan., 1982)	900	2000	F-S-N
Pityohyphantes phrygianus (C.L. Koch, 1836)	900	1200	P
Pocadicnemis pumila (Bl., 1841)	900	1100	H
Poeciloneta petrophila Tan., 1989	500	800	S&ES-WN
P. variegata (Bl., 1841)	450	500	P-WN
Porrhomma boreale (Banks, 1899)	2000	2250	S-A
P. magnum Tan., 2012	2200	2200	SS
P. pallidum Jackson, 1913	500	2500	P
P. pygmaeum (Bl., 1834)	900	1100	P
Praestigia pini (Holm, 1950)	300	1950	F-S
Pseudocyba miracula Tan., 1984	600	1100	S
Sauron fissocornis Eskov, 1995	900	1100	SS
Savignia frontata Bl., 1833	900	1100	WP
Scotargus pilosus Simon, 1913	500	800	P
S. alpigena (L. Koch, 1869)	1900	2000	P
S. altaicus Marusik et al., 1996	1900	2100	SS
S. antennatus (O. P.-Cambr., 1875)	1700	2300	E-SS
S. protervus (L. Koch, 1879)	1200	3000	S-WN
S. sacer (Crosby, 1929)	1700	1750	S-N
Semljicola angulatus (Holm, 1963)	1650	2200	F-S
S. latus (Holm, 1939)	1350	2200	F-S
S. thaleri (Eskov, 1981)	900	2000	S

Table 3 (continuation)
Таблица 3 (продолжение)

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution pattern
	min	max	
Silometopus uralensis Tan., 1985	1600	2200	W&SS
Stemonyphantes altaicus Tan., 2000	1300	2300	Sc
S. conspersus (L. Koch, 1879)	1600	2200	S
S. sibiricus (Grube, 1861)	300	1100	S
S. taiganoides Tan. et al., 2012	300	400	W&SS
S. taiganus (Ermolajev, 1930)	300	1400	W&SS
Styloctetor logunovi (Eskov et Marusik, 1994)	300	1100	SS
S. stativus (Simon, 1881)	900	2000	H
Tanasevitchia strandi (Ermolajev, 1937)	1000	1200	SS
Tapinocyboides pygmaeus (Menge, 1869)	400	550	E-AM
Tenuiphantes alacris (Bl., 1853)	900	2100	E-S
T. cristatus (Menge, 1866)	600	600	WP
T. mengei (Kulcz., 1887)	400	550	P
T. nigriventris (L. Koch, 1879)	300	2500	p
T. suborientalis Tan., 2000	1400	2800	SS
Thaleria sajanensis Eskov et Marusik, 1991	1700	2000	SS
Thyreosthenius parasiticus (Westr., 1851)	500	2200	H
Tibioploides arcuatus (Tullgren, 1955)	450	1750	F-S
Tibioplus diversus (L. Koch, 1879)	450	2200	F-S-WN
Tiso aestivus (L. Koch, 1872)	1600	2200	P-WN
Tmeticus nigriceps (Kulcz., 1916)	1700	1800	S
Trematocephalus cristatus (Wider, 1834)	300	1100	P
Trichoncoides piscator (Simon, 1884)	500	600	AM
Trichoncus hackmani Millidge, 1956	900	2000	E-SS
Troxochrus scabriculus (Westr., 1851)	450	500	WP
Typhochrestoides baikalensis Eskov, 1990	1350	2200	W&SS
Viktorium putoranicum Eskov, 1988	1750	2100	S
Walckenaeria alticeps (Denis, 1952)	700	900	WP
W. antica (Wider, 1834)	1700	1750	P
W. atrotibialis (O. P.-Cambr., 1878)	500	600	WP-N
W. capito (Westr., 1861)	1700	2500	H
W. cuspidata Bl., 1833	900	2000	E-S
W. karpinskii (O. P.-Cambr., 1873)	500	2200	F-S-WN
W. katanda Marusik et al., 1996	450	2200	A
W. koenboutjei Baert, 1994	400	800	SS
W. lepida (Kulcz., 1885)	500	1750	F-S-N
W. nodosa O. P.-Cambr., 1873	300	2000	P
W. nudipalpis (Westr., 1851)	400	900	P
W. picetorum (Palmgren, 1976)	1700	1750	F-S
W. aimakensis Wund., 1995	1800	2000	S&ES-WN
W. esyunini Tan., 2004	2500	3000	AM

Table 3 (continuation)
Таблица 3 (продолжение)

Species	Altitudinal distributions in the Altais (elevations, m a.s.l.)		Distribution pattern
	min	max	
Wubanoides uralensis (Pakhorukov, 1981)	900	2000	W&SS
Yakutopus xerophilus Eskov, 1990	1800	2000	S
Zornella cultrigera (L. Koch, 1879)	500	1950	H
Total: 210 species			

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