

A survey of Holarctic Linyphiidae (Araneae). 3. A review of the genus *Praestigia* Millidge, 1954

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Summary

Praestigia Millidge, 1954 is removed from synonymy with *Baryphyma* Simon, 1884. The genus includes eight species, four of which are new to science: *duffeyi* Millidge, 1954 (type species) (North Sea coast and Ireland), *pini* (Holm, 1950) (Palearctic), *groenlandica* Holm, 1967 (Greenland and adjacent parts of Canada), *kulczynskii* Eskov, 1979 (Siberia, northern Japan and Nearctic), *eskovi* sp. n. (north Siberia), *makarovae* sp. n. (Dolgiy and Vaigach Islands, Barents Sea), *sibirica* sp. n. (Arctic Siberia and western Alaska), and *P. uralensis* sp. n. (Middle Ural). *Praestigia uralensis* sp. n. is known from males only. All species are illustrated by drawings and SEM-microphotographs. The distribution of each species is mapped. Relationships of *Praestigia* are briefly discussed. One new combination is suggested: *Micrargus longitarsus* (Emerton, 1882) comb. n., ex *Baryphyma*.

Introduction

This paper, the third in a series on the spider family Linyphiidae, is devoted to the Holarctic genus *Praestigia*. This genus was described by Millidge (1954) on the basis of *P. duffeyi* Millidge, 1954, occurring in northern Europe (coastal regions of the North Sea). Millidge (1954) included in the new genus one additional species, *Cornicularia pini* Holm, 1950. Later two more species were added to this genus, *P. groenlandica* Holm, 1967 and *P. kulczynskii* Eskov, 1979. On the basis of studies of the male palp of over 190 species of numerous genera Millidge (1977) concluded that *Praestigia* as well as two other genera are junior synonyms of *Baryphyma* Simon, 1884 (type *Walckenaera pratensis* Blackwall, 1861). The synonymy of these genera was not accepted by Eskov (1994), although other linyphiidologists have followed Millidge's opinion.

When studying the Siberian fauna we faced some difficulties in identifying *Praestigia groenlandica*, because specimens from different populations have different sizes and slightly different palps and carapaces in males and females. However, we were not able to compare our material with type or topotypical material. Eskov (1988) indicated the occurrence of an additional undescribed species of *Praestigia* in Siberia. This was similar to *P. groenlandica* and has been known from Evenkia and the upper Kolyma (Eskov, 1988; Marusik *et al.*, 1992). Later, in his catalogue, Eskov (1994) treated Kolyman

and Evenkian populations as *P. groenlandica*. Females of all *Praestigia* species have been regarded as indistinguishable or almost indistinguishable.

Recently we found paratypes of *P. groenlandica* in Copenhagen and material from England also became available and it became possible to undertake this survey: (1) the comparison of different Siberian populations with the paratypes and topotypical material, and (2) the comparison of European, Eurasian and Holarctic *Praestigia* species.

Material and methods

The material treated herein is distributed among the collections of the Zoological Museum, University of Copenhagen (ZMC), Californian Academy of Sciences (CAS), Canadian National Collections (CNC), Institute for Biological Problems of the North (Magadan, IBPN), Manchester Museum, Manchester University (MMUM), Perm State University (PSU), Zoological Museum, University of Turku (ZMUT), Zoological Museum, University of Helsinki (ZMUH), Jörg Wunderlich's personal collection (Germany, JWC), Zoological Museum, Moscow State University (ZMMU) and Zoological Institute, St. Petersburg (ZISP). Material from Kirill Eskov's collection stored in ZMMU is marked as ZMMU-KE.

The terminology of the somatic and copulatory organ characters used is partially after Millidge (1977) and Hormiga (2000) and partially novel. Some new terms are used because structures such as the unique rostrum of *Praestigia* have not been described. A few terms used by earlier authors such as "pedipalpal tibial apophysis" (cf. Hormiga, 2000) are inadequate, because many erigonines have several apophyses of different origin. Certain parts of the palp that have taxonomic importance have never been named (e.g. retrolateral-ventral lobe of the palpal tibia).

Map 1 is based on material studied during this project, our earlier identifications published in several papers and literature data.

Illustrations were made using a transmitted light microscope with drawing "devices". SEM-microphotographs were made with a JEOL JSM-5200 in the Zoological Museum, University of Turku. All measurements are given in mm.

Abbreviations used: AME=anterior median eyes; Ca=cap of rostrum; Co=cornicle; Dt=dorsal tibial apophysis; Dp=ventral plate; Eb=embolic base; Em=embolus; Eo=epigyne opening; Fu=furrows of Dt; Me=membrane; Np=neck of median plate; Pa=paracymbium; Pp=posterior median plate; Pt=protegulum; Ro=rostrum; Sa=suprategular apophysis; Sd=seminal duct; So=slit organ; Tl=tibial lobe; Tp=tailpiece; Tr=trichobothrium; Ts=tegular sac.

Genus *Praestigia* Millidge, 1954

Praestigia Millidge, 1954: 253

Type species: Praestigia duffeyi Millidge, 1954 from SE England. Millidge (1954) did not clearly state which

is the type species of the genus (which made this genus not valid according to the ICZN rule). It is evident that he intended *P. duffeyi* to be the type species, because he illustrated only this species, and the second one, *Cornicularia pini* Holm, 1950, was just mentioned as a member of this genus and a new combination was suggested.

Etymology: Millidge (1954) did not indicate an etymology of this genus. Parker (1993) gave the following etymology: Latin: *prae* (in front, before), and Greek: *stigos* ("an awl") referring to the frontal projection on the male carapace.

Description: Small sized dark erigonines, 1.76–2.75 mm long. Male carapace modified: ocular area extended into short or long outgrowth (rostrum*, *Ro*, = male inter-AME–PME lobe *sensu* Hormiga (2000)) bearing a kind of cap (*Ca*) at its tip (Figs. 1, 5, 7–19). Cap can be conical with fused or unfused ventral part, like a British policeman's helmet (*duffeyi*-group: *duffeyi*, *eskovi* sp. n., *groenlandica* and *sibirica* sp. n.; Fig. 2), or like a flat cap in *P. kulczynskii* (Fig. 10). Cap consists of fibres attached to each other (Figs. 2, 109–117). Its origin is unclear. Cap can be easily lost; apparently attached to rostrum with a kind of wax. Rostrum directed forward (Figs. 1, 5, 7, 8, 10) or forward–upward (Fig. 11). Dorsal side of rostrum covered with strong setae (Figs. 1, 5, 7–19, 112, 114–115). Length and density of these setae differ in different species. *Praestigia uralensis* sp. n. has no clear rostrum (partly extended over AME, as in all other species), but its rostrum can be recognised by the setae and cap. AME are always below the rostrum (Figs. 1, 5, 7–19). Clypeus inclined in all species. Members of *duffeyi*-group have straight inclined clypeus (Figs. 1, 5, 7), *P. makarovae* sp. n., *P. pini* and *P. uralensis* sp. n. have rounded inclined clypeus (Figs. 8, 9, 11). Females of *duffeyi*-group also have modified carapace: a small conical outgrowth (cornicle, *Co*) between AME (Figs. 4, 6, 118–119). *Praestigia makarovae* sp. n. also has a cornicle, but visible in SEM only (Fig. 120). This feature seems unique for linyphiids. Spination 2211, spines short and indistinct, length not longer than $\frac{1}{2}$ tibial diameter. Metatarsus IV with trichobothrium (absent in *P. kulczynskii* only). TmI 0.79–0.91.

Male palp relatively short, with very thick femur, in some species its diameter about $\frac{1}{2}$ its length (Figs. 57, 61). Patella thick, thicker than femoral base (Figs. 51, 54, 57–58, 61, 64). In retrolateral view tibia very short, wider than long (Figs. 20–26). Ventrolateral part forms rounded outgrowth (lobe, *Tl*) (Figs. 20–26, 54, 61). Palpal tibia with 3 trichobothria (*Tr*) (Fig. 126) and long dorsal apophysis, gradually tapering (Figs. 30–38, 125) and strongly curved; in most species smoothly turned, but in *P. kulczynskii* it forms almost a right angle (Fig. 36). Terminal part of tibial apophysis in most species with longitudinal furrows (*Fu*) on both sides (dorsally and ventrally) (Figs. 31, 37, 56, 60, 63, 66). Tibia with numerous slit organs (Figs. 125–126). Paracymbium (*Pa*) thin, hooked, partly hidden by ventrolateral out-

growth (lobe, *Tl*) of tibia. Base of paracymbium with spoon-like depression with 2 hairs, tip rather thin with 1 hair. Seminal duct wide, more than $\frac{1}{2}$ tegulum width (Figs. 20–26). Protegulum divided into two parts: protegulum proper (*Pt*) and tegular sac (*Ts*) (Fig. 39). Suprattegulum with one, spine-like dorsal apophysis (*Sa*), sharply pointed (Figs. 25, 39, 57). Embolic division with relatively short and not twisted radix, long coiled embolus (*Em*) and well developed membrane (*Me*) (Figs. 45–50). Embolus forms about $\frac{3}{4}$ of a circle or a whole coil (270–360°, Figs. 28–29, 52, 55, 59, 62, 65). Epigyne: Ventral plate (*Dp*) of epigyne without fovea or furrows, and in ventral view no diagnostic characters can be observed (Figs. 69, 79, 83, 88, 90, 121). Median plate curves behind epigastric furrow; divided into thin anterior part (or neck, *Np*) and wide posterior part (*Pp*) (Figs. 68, 75, 77, 80, 93, 95–96). Posterior part much wider than long, anterior part (neck) thin and short, and can be greatly reduced (*P. pini*, *P. kulczynskii*, Figs. 89, 91). Sides of neck and main epigynal plate form openings (*Eo*) with weakly sclerotised cuticle (Figs. 72, 75, 77, 92, 95). Vulva with large receptacula (Figs. 70, 73, 76, 81, 84, 87).

Diagnosis: Males of this genus can be easily distinguished from all other linyphiids by the presence of the rostrum with the anterior median eyes on its ventral side and the cap. Females of *Praestigia* can be distinguished from most other erigonines by having no fovea or furrows on the epigyne in ventral view, lack of cavities in caudal view, and an inverted T-shaped median plate. In addition females of several species have a small cornicle in the median ocular quadrangle.

Composition: *Praestigia duffeyi* Millidge, 1954, *P. eskovi* sp. n., *P. groenlandica* Holm, 1967, *P. kulczynskii* Eskov, 1979, *P. makarovae* sp. n., *P. pini* (Holm, 1950), *P. sibirica* sp. n. and *P. uralensis* sp. n. Four species are very close to each other in carapace shape, both in male and female, and in the copulatory organs; these form a distinct *duffeyi*-group: *P. duffeyi*, *P. eskovi* sp. n., *P. groenlandica* and *P. sibirica* sp. n. The other four species are difficult to group, because characters in the carapace and copulatory organs are contradictory. *Praestigia kulczynskii* has a unique shape of the carapace, while the epigyne of this species is rather similar to that in *P. pini*, but the palp is similar to that of *P. uralensis* sp. n. *Praestigia makarovae* sp. n. is somewhat similar to *P. uralensis* sp. n. (shape of cap), but differs in the shape of rostrum.

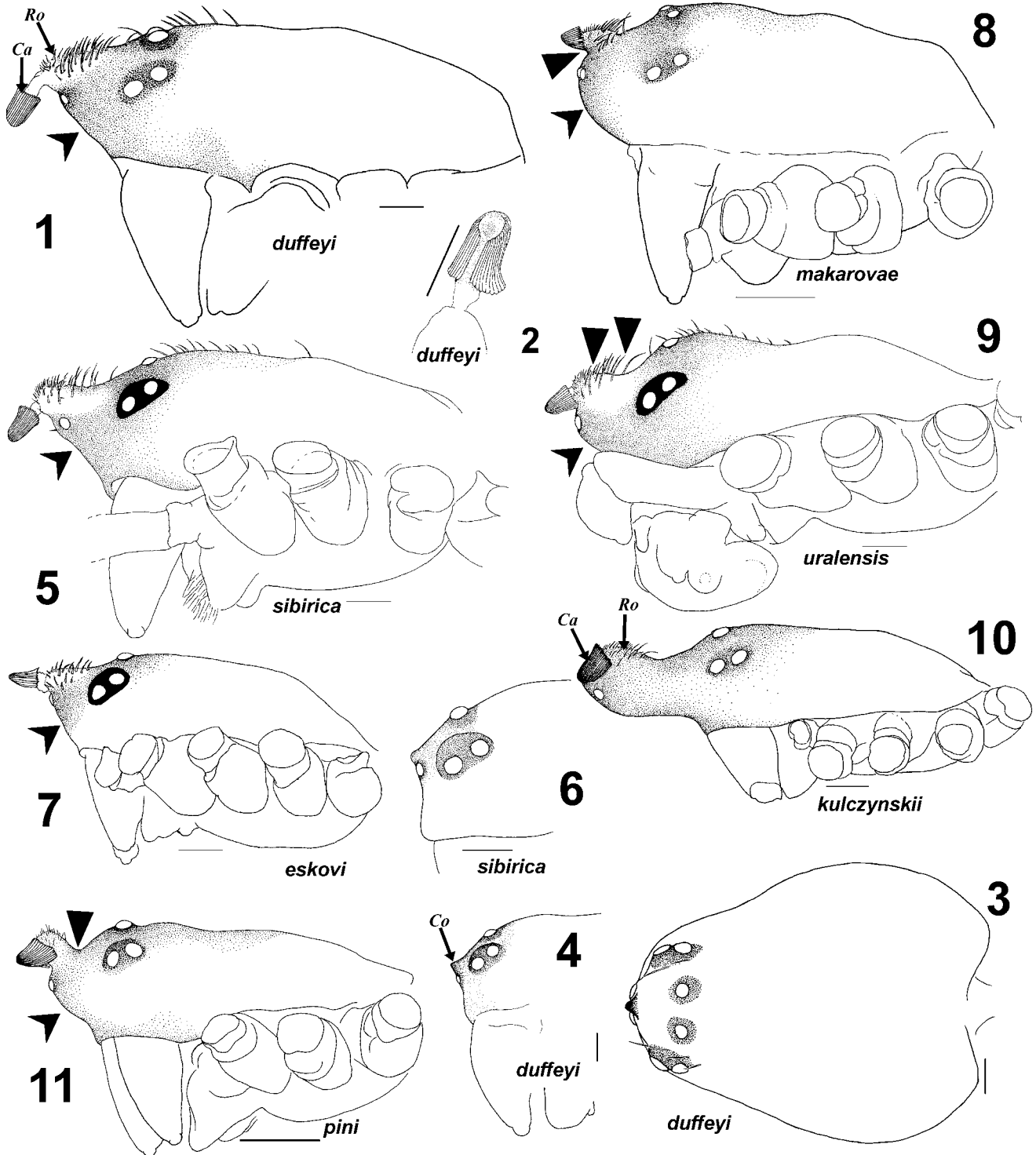
Distinguishing species: Almost all species can be easily distinguished by the shape of the male carapace. The male palp is very uniform in nearly all species and only in a few cases can males be easily identified exclusively by the palp. In the palp the most valuable diagnostic characters are: (1) shape of dorsal tibial apophysis; (2) shape of tip of dorsal tibial apophysis and its fine structure; (3) shape of protegulum; (4) shape of tip of suprattegular apophysis; (5) shape of embolic division; and (6) relative length of embolus proper. One species, *P. kulczynskii*, can be easily recognised by the small size of its palp. Females are much more difficult to

*We use the term rostrum for the frontal part of the carapace extending beyond the plane formed by the anterior part of the chelicerae and the anterior lateral eyes.

distinguish. Several species can be recognised by the presence and size of the cornicle between AME. Epigynes, like palps, are rather similar. The most important diagnostic characters can be found in the presence/absence and relative width of the median plate's neck. There are several useful characters in the vulva: size, shape and direction of receptacula and ducts.

Comments: We regard *Praestigia* as a separate genus although closely related to *Baryphyma* (type *Walckenaera pratensis* Blackwall, 1861). The two genera can

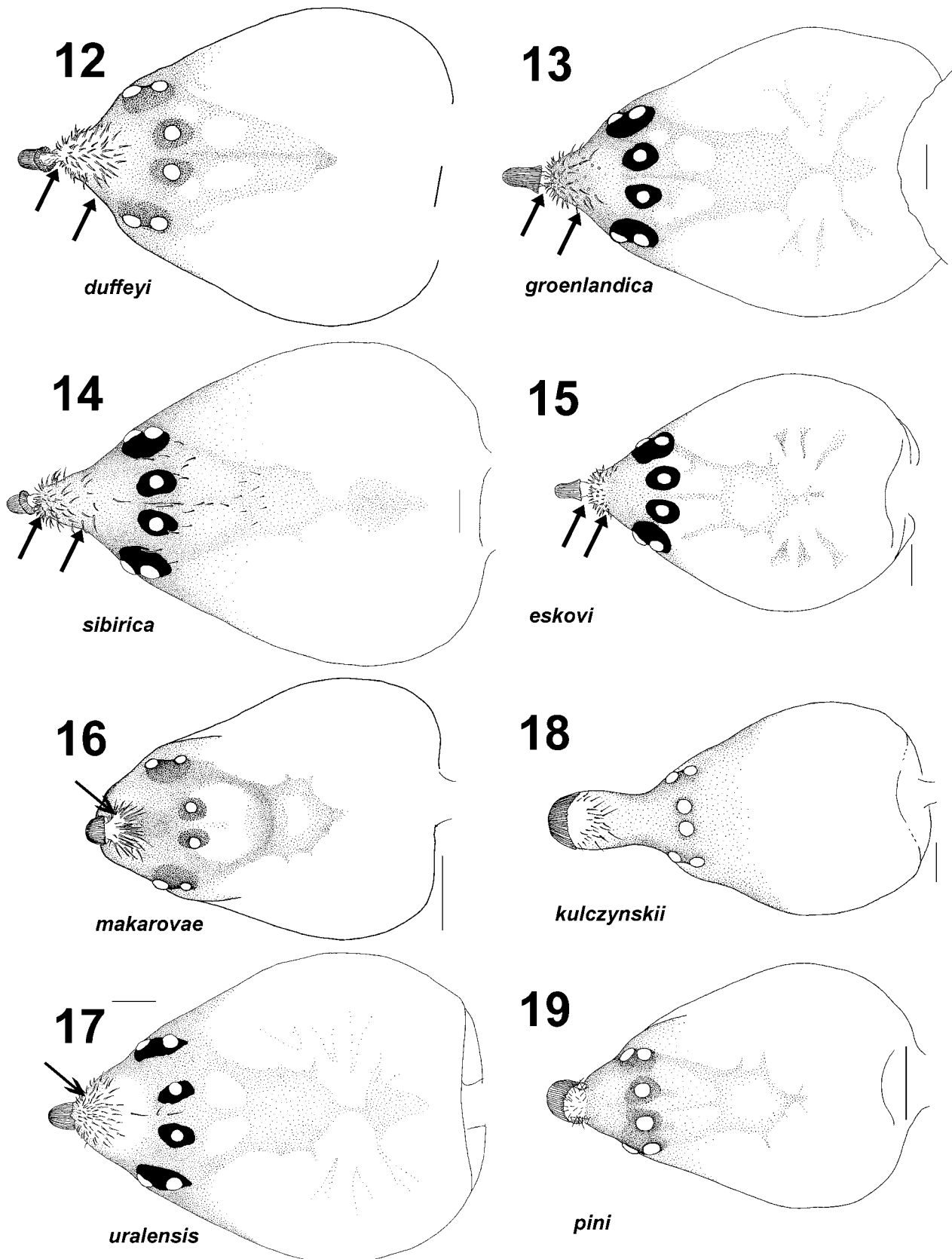
be easily separated on the basis of carapace shape (extended ocular area (rostrum) with "cap" on it in *Praestigia*, raised cephalic part and sulci in *B. pratensis*), short tibia in retrolateral view, shape of tibial apophysis (strongly curved, tapering and sharply pointed in *Praestigia*, short and flat in *B. pratense*). The two genera differ in shape of paracymbium (hooked in *Praestigia* and hammer-shaped tip in *Baryphyma*). The anterior median eyes in all *Praestigia* species are below the rostrum. Thanks to the rostrum and its cap *Praestigia* is one of



Figs. 1–11: Carapaces. 1–4 *Praestigia duffeyi*; 5–6 *P. sibirica* sp. n. (from Kular); 7 *P. eskovi* sp. n.; 8 *P. makarovae* sp. n.; 9 *P. uralensis* sp. n.; 10 *P. kulczynskii* (from Kontakt); 11 *P. pini*. 1, 5, 7–11 Male, lateral view; 2 Male cap, ventral view; 3 Female, dorsal view; 4, 6 Female, lateral view. Scale lines=0.1 mm. Abbreviations: Ca=cap; Co=cornicle; Ro=rostrum; ▶=outline of clypeus; ▼=diagnostic characters.

the most easily recognisable erigonine genera. Females are also rather distinct among linyphiids by lacking furrows or openings on the ventral side of the epigyne, and by having a unique shape of the median plate with thin neck and broad posterior plate. If we follow

Millidge (1977) and synonymise genera on the base of similarity of their embolic divisions it would be necessary to unite (lump) dozens of genera such as *Ceratinella*, *Ceratinopsis*, *Styloctetor* and several Nearctic genera, or *Semljicola* and *Mecynargus*.



Figs. 12–19: Dorsal view of male carapace. **12** *Praestigia duffeyi*; **13** *P. groenlandica* (Greenland); **14** *P. sibirica* sp. n. (Kular); **15** *P. eskovi* sp. n.; **16** *P. makarovae* sp. n.; **17** *P. uralensis* sp. n.; **18** *P. kulczynskii*; **19** *P. pini*. Scale lines=0.1 mm.

Survey of species

***Praestigia duffeyi* Millidge, 1954** (Figs. 1–4, 12, 20, 30, 39, 45, 51–53, 68–70, 101, 107–108, 112–113, 118)

Praestigia duffeyi Millidge, 1954: 254, figs. a–h (D♂♀).

Praestigia duffeyi: Wiehle, 1961: 172, figs. 1–11 (♂♀); Cooke, 1963: 157, figs. 23–26 (♂♀); Merrett, 1963: 420, figs. 99A–C (♂); Lockett *et al.*, 1974: 79, figs. 46A–F (♂♀).

Baryphyma duffeyi: Millidge, 1977: 18, fig. 58 (♂); Roberts, 1987: 48, figs. 15b, 17f (♂♀); Heimer & Nentwig, 1991: 118, fig. 338 (♂♀); Millidge, 1993: 127, fig. 11 (♀).

Material examined: IRELAND: 1♀ (MMUM), Co. Kerry, Castle-
gregory, Tularee, in grass on salt marsh, 22 May 1969 (D. W. Mackie;
4746). UNITED KINGDOM: 1♂ 1♀ (MMUM), J.A.L.C. 4746
[Suffolk, probably Flatford, 1960, J. A. L. Cooke]. BELGIUM: 14♂
(ZMUT, ZMMU), no localities or dates (J.-P. Maelfait).

Description: Total length 2.75/2.7 (♂/♀). Carapace 1.29 (1.16 without cap)/1.07–1.18 long, 0.83/0.84 wide. Leg I 0.74+0.31+0.79+0.57+0.4/0.86+0.31+0.79+0.57+0.4. TmI 0.91/0.86. Carapace as Figs. 1, 12, 107–108, brown with blackish stripes in cephalic part and radial stripes on thoracic part. Rostrum relatively short, covered with dense hairs (Figs. 1, 12). Clypeus straight inclined, not rounded. Abdomen dark grey. Legs orange-yellowish or yellow with grey spots. Female carapace with distinct cornicle. Cephalic cap of male with distinct furrow ventrally, sides not touching each other (Fig. 2), in SEM figures cap margins merged (Fig. 113) possibly due to drying. Palp as in Figs. 20, 30, 39, 45, 51–53, terminal part of dorsal tibial apophysis without furrows, embolus makes 360° coil viewed from above. Epigyne as in Figs. 68–70, with distinct neck, receptacula slightly longer than wide, not elongated.

Diagnosis: This species is most closely related to *P. groenlandica*, *P. sibirica* sp. n. and *P. eskovi* sp. n. From these species it can be distinguished by the larger body and male palp. There are several differences (indicated with arrows in figures) in the shape of the carapace and its hairiness and in the copulatory organs. In addition the female has a rather long cornicle, longer than in related species.

Ecology: In England it occurs in tidal litter or on mud beneath *Halimione*, *Phragmites* and other vegetation on saltmarsh and brackish marshes (Harvey *et al.*, 2002). It seems that it prefers the higher tidal reaches of rivers or their tributaries. Adults of both sexes occur from April to June, and females have been found from March to July (Harvey *et al.*, 2002).

Distribution: This species has a rather limited range (Map 1) and occurs across the southern corner of the North Sea: SE England, Belgium, the Netherlands, Germany and Denmark, and in one area outside this region: Ireland (Harvey *et al.*, 2002 and present material).

***Praestigia groenlandica* Holm, 1967** (Figs. 13, 31, 61–63, 77–78, 94–95, 119)

Praestigia groenlandica Holm, 1967: 48, figs. 63–67 (D♂♀).

Baryphyma groenlandica: Brignoli, 1983: 328.

Baryphyma groenlandicum: Paquin & Dupérré, 2003: 89, figs. 780–783 (♂♀).

Material examined: GREENLAND: 2♂ 1♀ (paratypes, ZMC), W. Greenland, Godhavn, [69°15'N, 53°34'W], 5–10 July 1962 (Å. Holm); 1 subadult ♂ (ZMC), Søndre Strømfjord, 67°02'N, 50°40'W, 2 August 1992 (Jens Böcher); 1♀ (ZMC), SW Greenland, Kangia eastern end, 65°17'N, 52°01'W, 12 July 2003 (S. Langemark: Kissavik Exp.). CANADA: *Nunavut*: 1♂ (CNC), NWT (=Nunavut), Ellesmere Island, 3 July 1981 (O. Kukal); 1♀ (CNC), same locality, 15 August 1981 (O. Kukal) (both det. J. H. Redner).

Description (after Holm, 1967): Total length 2.13/2.4 (♂/♀). Carapace 0.82 (with cap)/0.88 long, 0.65/0.65 wide. Leg I 0.64+0.24+0.58+0.4+0.34/ 0.61+0.27+0.53+0.43+0.31. TmI 0.85/0.88. Carapace as in Fig. 13, dusky brown in male with black pentagonal median marking connected with lateral eyes by broad streak on either side. Sternum black, chelicerae light brown. Legs yellowish. Female carapace with very small indistinct cornicle (Fig. 119). Cap of male carapace with ventral margins touching. Clypeus straight inclined, not rounded. Palp as in Figs. 31, 61–63. Tibia with distinct lobe in ventro-retrolateral part, its length equal to width. Terminal part of dorsal tibial apophysis with distinct furrows. Protegulum longer than wide, on retrolateral side of tegulum, mesal part (*Ts*) thin, triangular. Embolus proper base not thickened, gradually tapering. Epigyne as in Figs. 77–78, 94–95, ventral plate large without fovea and furrows. In ventral view only receptacula visible, in caudal view median plate clearly visible, its neck narrower than its length. Neck/plate width ratio 0.14 (neck width=1/7 plate width).

Diagnosis: Very similar to *P. sibirica* sp. n., *P. eskovi* sp. n. and *P. duffeyi*. The differences between these sibling species are arrowed on figures. The most reliable difference between males of *P. groenlandica* and *P. duffeyi*/*P. sibirica* sp. n. is the presence of furrows on the dorsal tibial apophysis. Females of *P. groenlandica* have a thinner neck of the median plate than in the sibling species *P. sibirica* sp. n. (cf. Figs. 72, 77, 95–96).

Ecology: In Greenland this species has been collected in various habitats: *Carex* and *Carex–Eriophorum* bogs, heaths with mosses and low *Salix glauca*, snow beds with *Salix herbacea*, and litter in willow scrub (Holm, 1967). All habitats were moist.

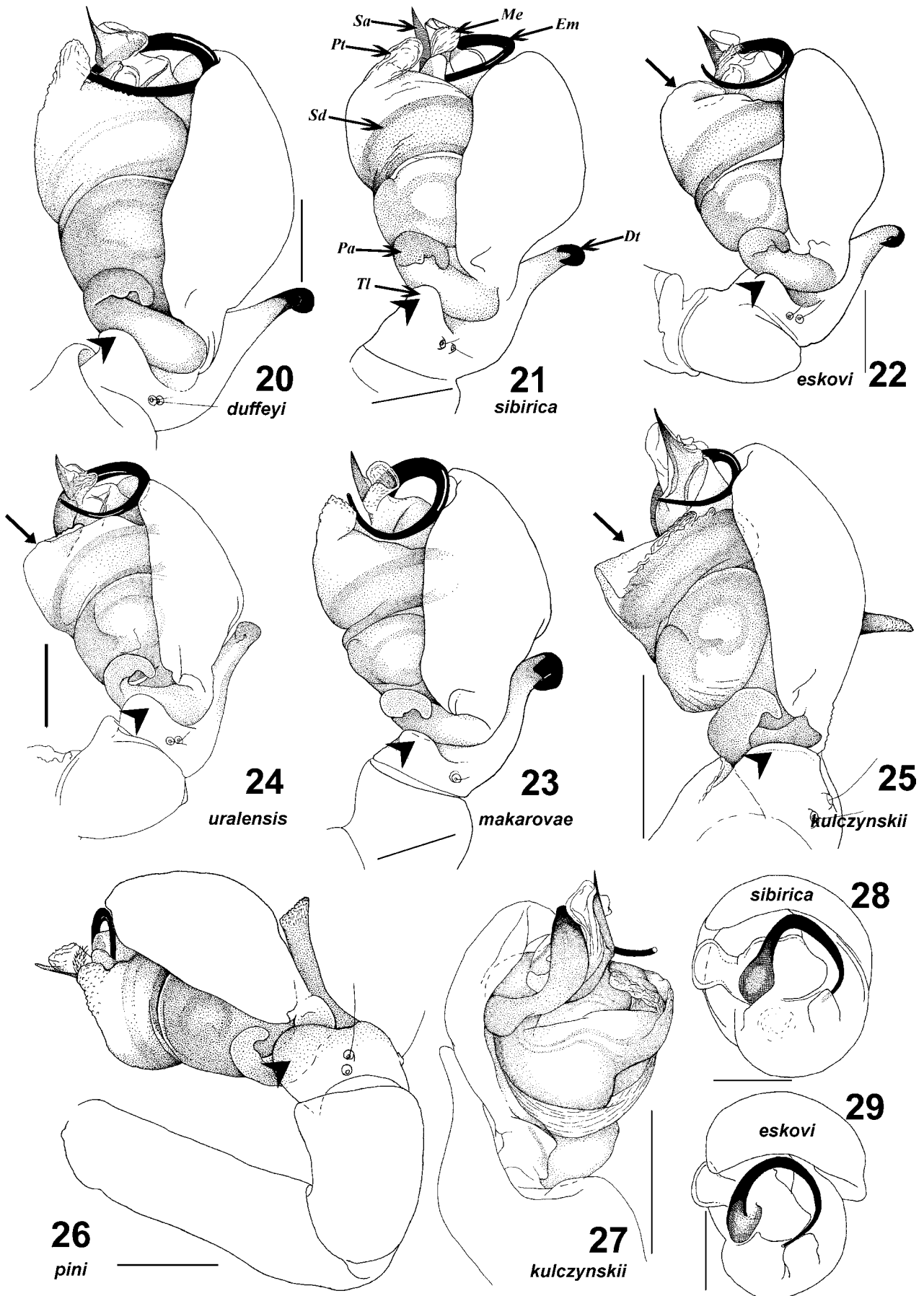
Distribution: Previously it was thought that *P. groenlandica* has a trans-Siberio-trans-Nearctic hypoarctic range (Eskov, 1994). This study reveals that it is restricted to Greenland and adjacent parts of Canada: Ellesmere Island and northern Québec (Map 1). In NE Siberia it is replaced by the sibling *P. sibirica* sp. n.

***Praestigia sibirica* sp. n.** (Figs. 5–6, 14, 21, 28, 32–33, 40, 46, 67, 71–73, 96, 121–126)

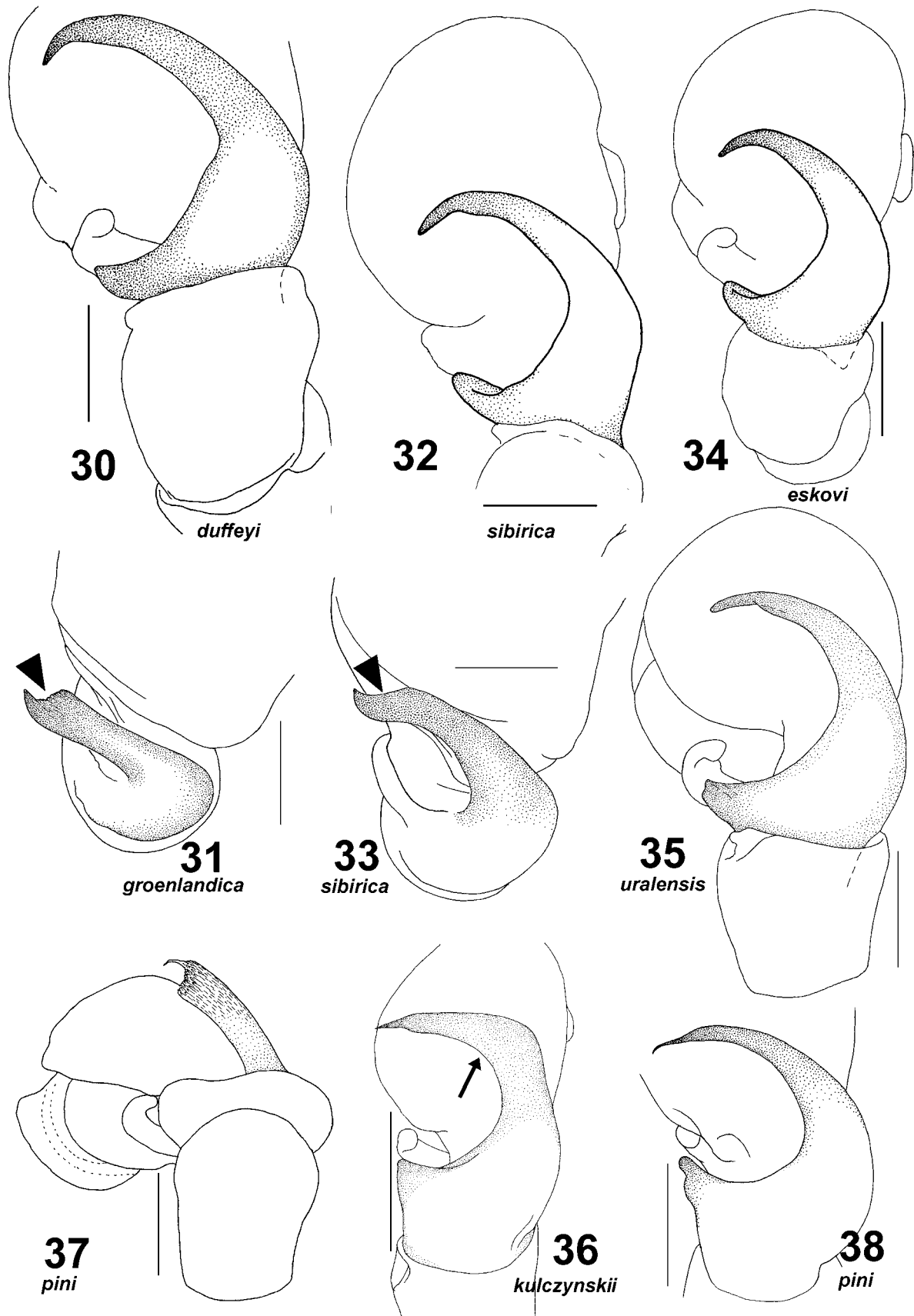
Praestigia groenlandica: Eskov, 1994: 93; Marusik *et al.*, 2002: 362, figs. 67–70 (♂).

Faunistic references (as *P. groenlandica*): Eskov, 1985, 1988, 1994; Khrulyova, 1987; Marusik *et al.*, 1992, 1993, 2002.

Types: Holotype ♂ (ZMMU) and 255 ♂♀ paratypes (ZMUT, ZMMU, ZISP), from Russia, NE Yakutia, Ust'-Yana Ulus, environs of Kular Vill., 70°35'N, 134°34'E, 1996 & 2000 (S. N. Nogovitsyna & N. K. Potapova). Other paratypes: RUSSIA: *Taimyr Peninsula*:



Figs. 20–29: Male palps. **20** *Praestigia duffeyi* (Belgium); **21, 28** *P. sibirica* sp. n. (Kular); **22, 29** *P. eskovi* sp. n. (Kontakt); **23** *P. makarovae* sp. n.; **24** *P. uralensis* sp. n.; **25, 27** *P. kulczynskii* (Magadan); **26** *P. pini* (Mirnoye); **20–26** Retrolateral view; **27** Prolateral view; **28–29** Terminal view. Scale lines=0.1mm. Abbreviations: *Dt*=dorsal tibial apophysis; *Em*=embolus; *Me*=membrane; *Pa*=paracymbium; *Pt*=protegulum; *Sa*=supratregular apophysis; *Sd*=seminal duct; *Tl*=tibial lobe.



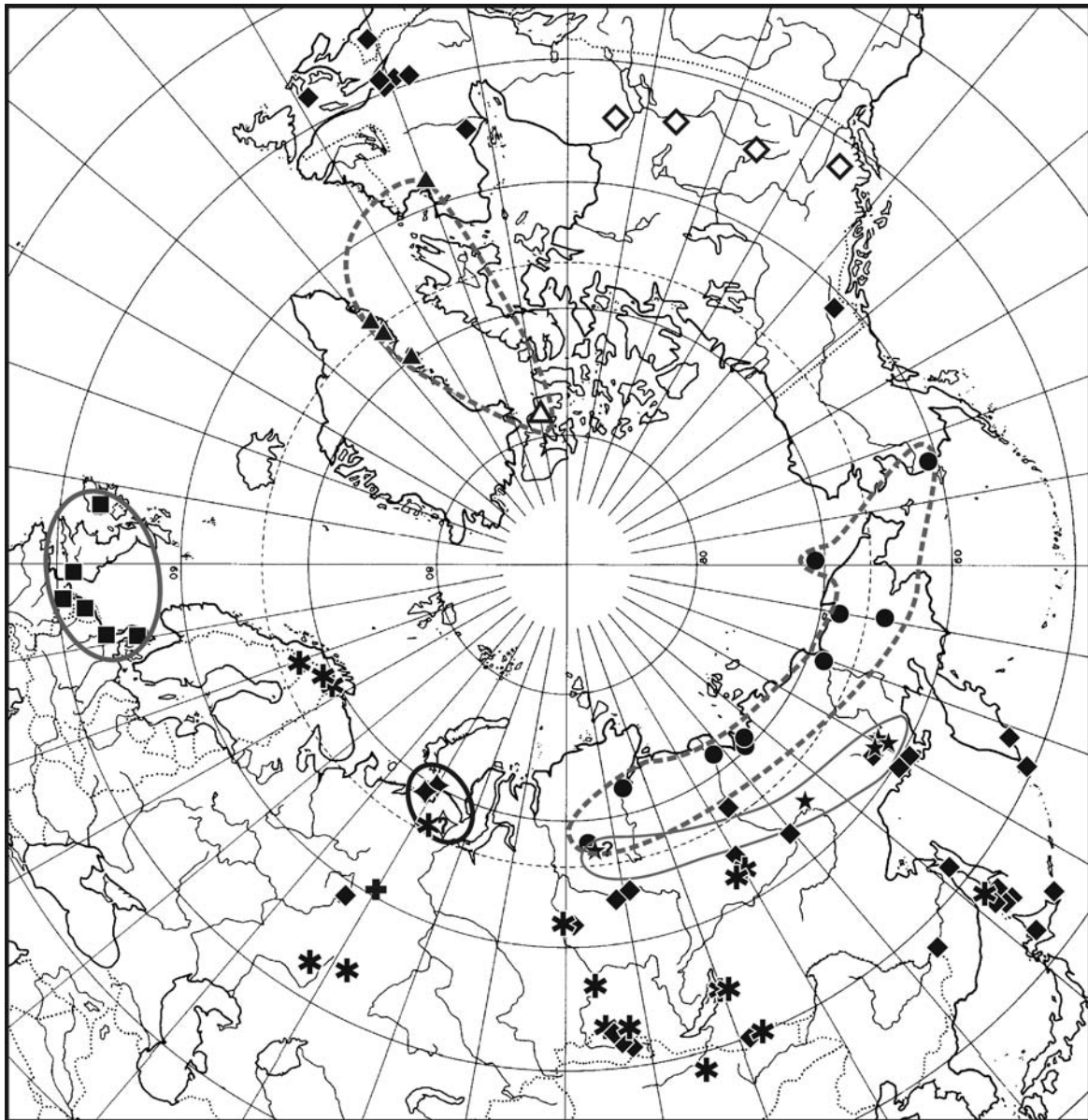
Figs. 30–38: Male palp showing dorsal tibial apophysis. **30** *Praestigia duffeyi* (Belgium); **31** *P. groenlandica* (Greenland); **32–33** *P. sibirica* sp. n. (Kular); **34** *P. eskovi* sp. n. (Kontakt); **35** *P. uralensis* sp. n.; **36** *P. kulczynskii* (Magadan); **37–38** *P. pini* (Mirnoye); **30, 32, 34–36, 38** Dorsal view; **31, 33** Dorso-terminal view; **37** Caudal view. Scale lines=0.1 mm. Note: ▼ indicating tibial apophysis with furrows and without.

1♀ (ZMMU-KE), SE Taimyr, Khatanga Distr., Zhdanikha Vill., 30 August 1971 (V. V. Zherikhin). *Evenkia*: 10♀ >20juv. (ZMMU-KE), Putorana Plateau, Ayan Lake, Ayan River sources, mountain tundra, moss-*Carex*-*Eriophorum* bog in a saddle, 10–16 August 1983 (K. Y. Eskov); 2♀ (ZMMU-KE), same locality, mountain shrub tundra, 19 August 1983 (K. Y. Eskov); 10♀ 18juv. (ZMMU-KE), Putorana Plateau, Ayan Lake, B. Khonnayakit River mouth, transitional *Carex*-moss bog in taiga belt, 22 July 1983 (K. Y. Eskov). *Yakutia*: 1♂ (ZISP), East Yakutia, Viska near Chayachya Zaimka, Kolyma River Delta, 21 June 1905 (S. Buturlin); 2♀ (ZMMU-KE), Yakutia, Kolyma River mouth, Kon'kovaya River, 26 July 1986 (G. Chernova). *Chukotka*: 1♂ (IBPN), West Chukotka, Chaun Bay, Chaun River mouth, 68°47'N, 170°30'E, summer 1986 (A. S. Ryabukhin); 1♀ (ZMMU-KE), Chukotka, Chaun Bay, Pucheveyem River mouth, driftwood, 25 July 1985 (A. S. Ryabukhin); 1♂ (IBPN), same locality, summer

1986 (A. S. Ryabukhin); 1♀ (CAS), Anadyr River, Markovo Town, 12 June 1996 (D. I. Berman); 1♂ (ZMMU-KE), Wrangel Island, Neizvestnaya River middle flow, high terrace, willow-*Carex*-moss tussocks, 23 August 1983 (O. A. Khrulyova); 2♂ (IBPN), same locality, 26 June–27 July 1990 (O. A. Khrulyova); 1♂ (IBPN), Wrangel Island, summer 1992 (O. A. Khrulyova). USA: *Alaska*: ? subadult ♂ (IBPN), (203) 61°26'N, 165°27'W, Yukon-Kuskokvim Delta, downflow of Old Chevak R., summer 1993 (Y. A. Kretschmar).

Etymology. The specific name is derived from the distribution area of this species, Siberia.

Description: Total length 1.93–2.21/2.29–2.4 (♂/♀). Carapace 0.89–1.03 (with cap 1.04–1.1)/0.84–0.9 long, 0.64–0.71/0.69–0.71 wide. Leg I 0.61+0.26+0.63+0.44 +0.36/0.69+0.26+0.59+0.46+0.33. TmI 0.87/0.91. Carapace as in Figs. 5, 14, yellow-brown-greyish, legs yellow-brownish. Female carapace with very small indis-



Map 1: Distribution of *Praestigia* species. ■ *P. duffeyi*; * *P. pini*; ◆ *P. kulczynskii* (◇ province records); ▲ *P. groenlandica* (△ no precise locality on Ellesmere Is.); ✚ *P. uralensis* sp. n.; ◆ *P. makarovae* sp. n.; ● *P. sibirica* sp. n.; ★ *P. eskovi* sp. n. Ranges are outlined for *P. duffeyi*, *P. makarovae* sp. n., *P. sibirica* sp. n., *P. eskovi* sp. n. and *P. groenlandica*.

tinct cornicle (Fig. 6). Cap of male carapace with ventral margins touching. Clypeus straight inclined, not rounded. Palp as in Figs. 21, 28, 32–33, 40, 46, 67, 123–126. Tibia with distinct lobe in ventro-retrolateral part, its length equal to its width. Dorsal tibial apophysis slightly curved in apical part, gradually tapering and lacking longitudinal furrows. Protegulum longer than wide and on retrolateral side of tegulum, mesal part of protegulum (tegular sac) thin, triangular. Embolus proper base not thickened, gradually tapering. Embolic division tailpiece rounded at tip. Epigyne as in Figs. 71–73, 96, 121–122, ventral plate large without fovea and furrows. In ventral view only receptacula visible, in caudal view median plate clearly visible. Receptacula long, bean-shaped in non-macerated epigyne. Neck/plate width ratio=0.23 (neck width=about $\frac{1}{4}$ plate width).

Diagnosis: This species is very similar to *P. groenlandica* with which it was previously confused. Females of the new species can be easily distinguished by having a wider neck of the median plate (cf. Figs. 72, 77, 95–96). Males of *P. groenlandica* have a wider tip of the dorsal tibial apophysis covered with longitudinal furrows (narrower and no sculpturing in new species). The rostrum in the new species is longer than in *P. groenlandica* (cf. Figs. 13 & 14). Differences in the carapace and male palp compared with other sibling species (*P. eskovi* sp. n. and *P. duffeyi*) are indicated by arrows.

Ecology: This species extends to the taiga zone in Middle Siberia. It occurs chiefly in mountain tundra: *Carex*–*Eriophorum* bog and mountain shrub tundra. Some specimens were found in transitional *Carex*-moss bog in the taiga belt. There are no precise data about its habitat preferences within the tundra zone. Some scattered material has been taken from driftwood, *Carex*-moss tussocks and some other places.

Distribution: This species has a Siberian arctic-montane range. There is one subadult male from Western Alaska that may belong to the same species (see material). The species extends into the boreal zone in the Putorana Plateau and occurs there in mountain tundra only. This taxon has the most northern distribution among its congeners, reaching 71° in the north (Map 1).

***Praestigia eskovi* sp. n.** (Figs. 7, 15, 22, 29, 34, 41, 47, 57, 79–81)

Praestigia sp. 1: Eskov, 1988: 124.

Praestigia cf. *groenlandica*: Marusik et al., 1992: 146.

Praestigia sp.: Marusik et al., 2002: 362, figs. 65–66, 71 (♂).

Types: Holotype ♂ and paratypes 7♂ 4♀ (ZMMU), Russia, Magadan Area, Kolyma River upper flow, Kulu River upper flow, “Kontakt” Field Station, 61°51'N, 147°40'E, summer 1999 (S. P. Bukhkalov).

Etymology: The specific name is a patronym in honour of our colleague and friend Dr Kirill Y. Eskov, Moscow, who first recognised this species as new to science, and made very important contributions to the knowledge of Holarctic linyphiids.

Description: Total length 1.76 (with cap 1.86)/1.99 (male/female). Carapace 0.87 (with cap 0.96)/0.77 long,

0.66/0.69 wide. Leg I 0.57+0.23+0.57+0.41+0.33/0.57+0.26+0.5+0.4+0.33. TmI 0.83/0.79. General coloration dark yellow-grey. Carapace as in Figs. 5, 15, clypeus straight inclined, not rounded. Legs yellow. Female carapace with distinct cornicle. Male cap “closed” ventrally (margins merged). Palp as in Figs. 22, 29, 34, 40, 47, 57. Tibia with small ridge-like indistinct outgrowth in ventro-retrolateral part. Protegulum relatively short, partly hidden by tegulum in lateral view. Mesal part of protegulum (tegular sac) broad with blunt tip (Fig. 41). Embolus proper base bulbous. Embolic division tailpiece triangular at tip. Epigyne as in Figs. 79–81, ventral plate large without fovea and furrows. In ventral view only receptacula visible, in caudal view median plate clearly visible, its neck narrower than length of posterior plate. Receptacula elongate, oval in non-macerated epigyne.

Diagnosis: This species belongs to the *duffeyi*-group. From the sibling and partially sympatric *P. sibirica* sp. n. it can be distinguished by the following characters (indicated by arrows): (1) low ventrolateral tibial lobe (as long as wide in *P. sibirica* sp. n.); (2) protegulum partly hidden by tegulum (not hidden in *P. sibirica* sp. n.); (3) mesal part of protegulum not pointed; (4) bulbous base of embolus proper (vs. gradually tapering); (5) embolic division tailpiece with triangular tip; (6) neck (stem) of median plate narrower than plate's length (vs. neck width=plate length); and (7) longer receptacula. Females of this species have a relatively stronger cornicle than *P. sibirica* sp. n. Differences in the carapace and male palp compared with other sibling species (*P. groenlandica* and *P. duffeyi*) are indicated by arrows.

Ecology: In the upper Kolyma, around “Aborigen” Field Station it is rather rare (YM, pers. data). There it was found in a boggy larch stand on a north-facing slope. It is relatively more common at the “Kontakt” Field Station. In Evenkia it was collected in shrub-moss bog in subgoltsy (intermediate zone between mountain tundra and taiga) belt (Eskov, 1988).

Distribution: Known from Evenkia (material not checked) and the upper Kolyma (Map 1).

***Praestigia makarovae* sp. n.** (Figs. 8, 16, 23, 42, 48, 54–56, 74–76, 92–93, 102–103, 106, 111, 115–116, 120)

Praestigia groenlandica: Eskov & Marusik, 1994: 75 (specimens re-examined).

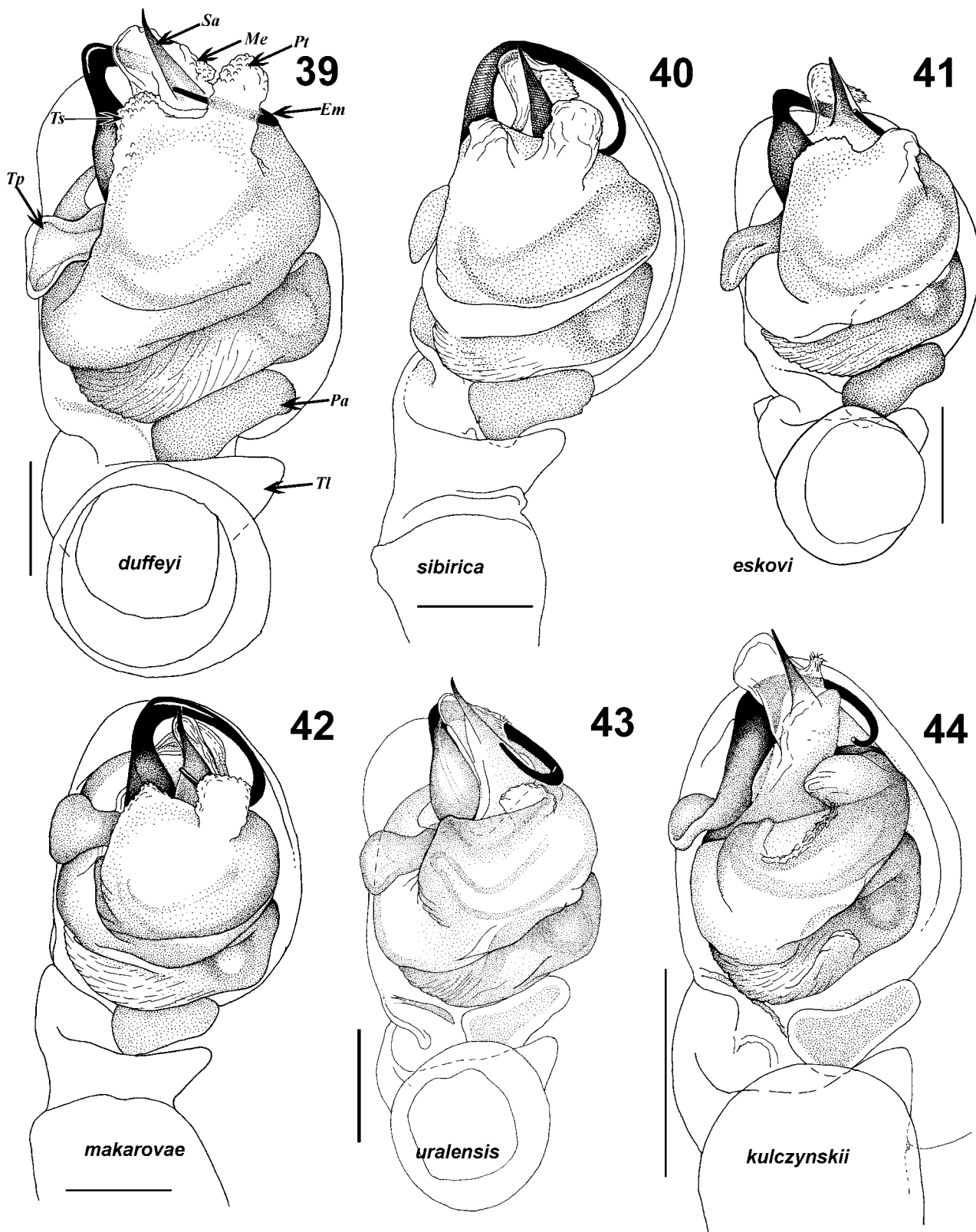
Types: RUSSIA: *Arkhangelsk Area*: Holotype ♂ (ZMMU) and paratypes 50♂♀ (ZMMU, ZMUT, MMUM, JWC), Barents Sea, Dolgiy Island, 69°12'N, 59°E, pitfall traps in several habitats, summer 2003 (O. L. Makarova). Other paratypes: *Arkhangelsk Area*: 3♂ 1♀ (ZMMU-KE, marked by K. Eskov as sp. n.), Vaigach Island, Talata River [c. 70.05°N, 59.370°E], 15 July 1987 (Bulavintsev).

Etymology: The specific name is a patronym in honour of Dr Olga L. Makarova, Moscow, who collected the type series.

Description: Total length 2.13–2.3/2.2–2.75 (♂/♀). Carapace 0.93–1.0 (with cap 1.0–1.07)/0.93 long, 0.69–0.71/0.77 wide. Carapace as in Figs. 8, 16, 111, 115–116,

dirty brown with darker pattern. Male carapace rounded in anterior part, cephalic cap as long as wide, its ventral margins far from each other (Fig. 116). Rostrum of male carapace short, directed forward; does not extend beyond AME and clypeus. Clypeus rounded. Abdomen dark grey-olive. Legs from orange to yellow.

Female carapace with very small cornicle, visible only in SEM (Fig. 120). Male palp as in Figs. 23, 42, 48, 54–56, tip of dorsal tibial apophysis with poorly developed furrows on dorsal side, embolus making 360° coil. Epigyne as in Figs. 74–76, 92–93, with narrow neck. Receptacula almost round.



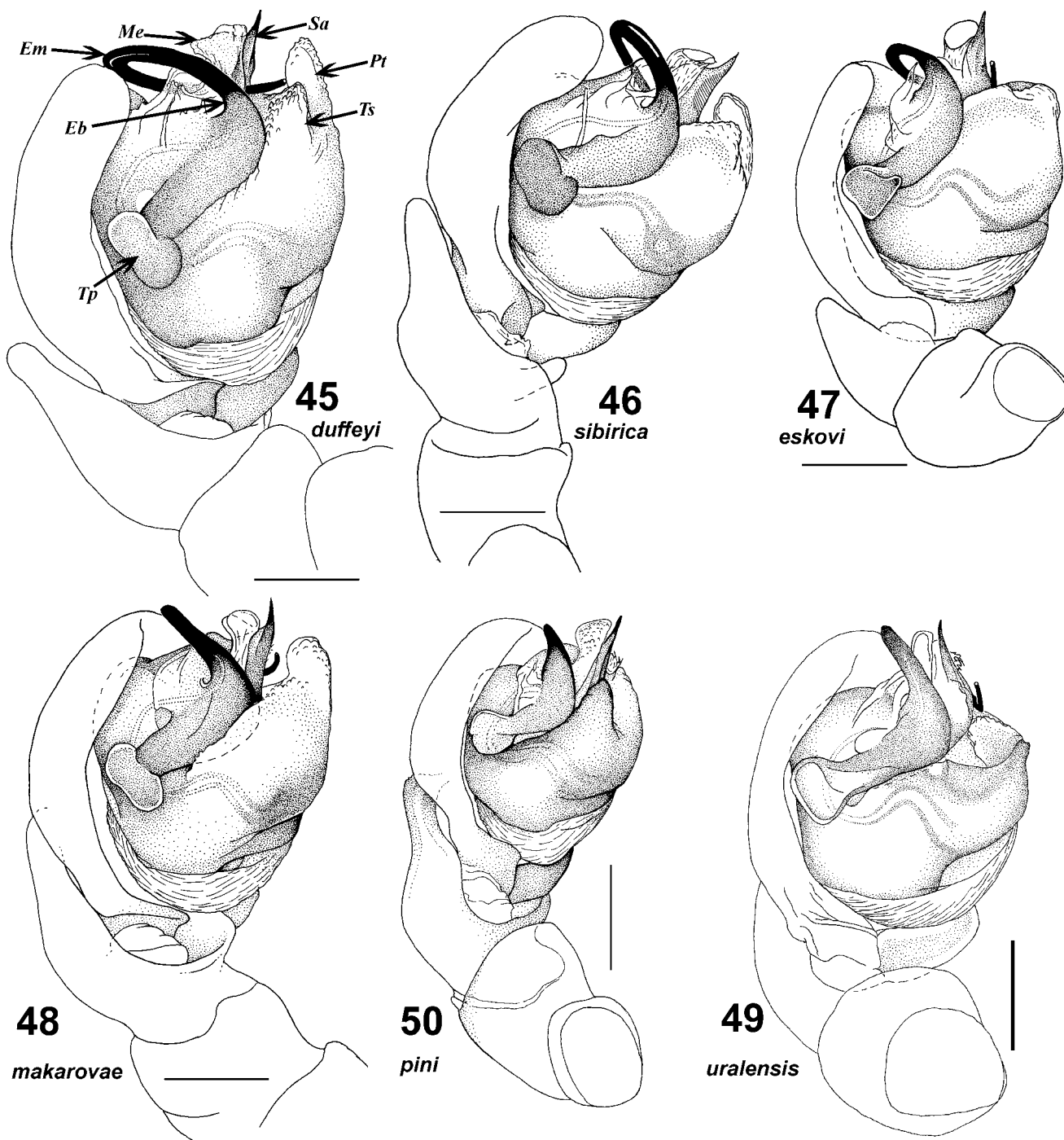
Figs. 39–44: Ventral view of male palp. **39** *Praestigia duffeyi* (Belgium); **40** *P. sibirica* sp. n. (Kular); **41** *P. eskovi* sp. n. (Kontakt); **42** *P. makarovae* sp. n.; **43** *P. uralensis* sp. n.; **44** *P. kulczynskii* (Magadan). Scale lines=0.1 mm. Abbreviations: *Em*=embolus; *Me*=membrane; *Pa*=paracymbium; *Pt*=protegulum; *Sa*=supratregular apophysis; *Tl*=tibial lobe; *Tp*=tailpiece; *Ts*=tegular sac.

Diagnosis: Males of this species can be easily distinguished by the rounded clypeus and the shape and position of the rostrum, which does not extend beyond the AME. Females can be easily distinguished by having no clearly visible cornicle and by the narrow neck of the median plate which is narrower than the lateral openings.

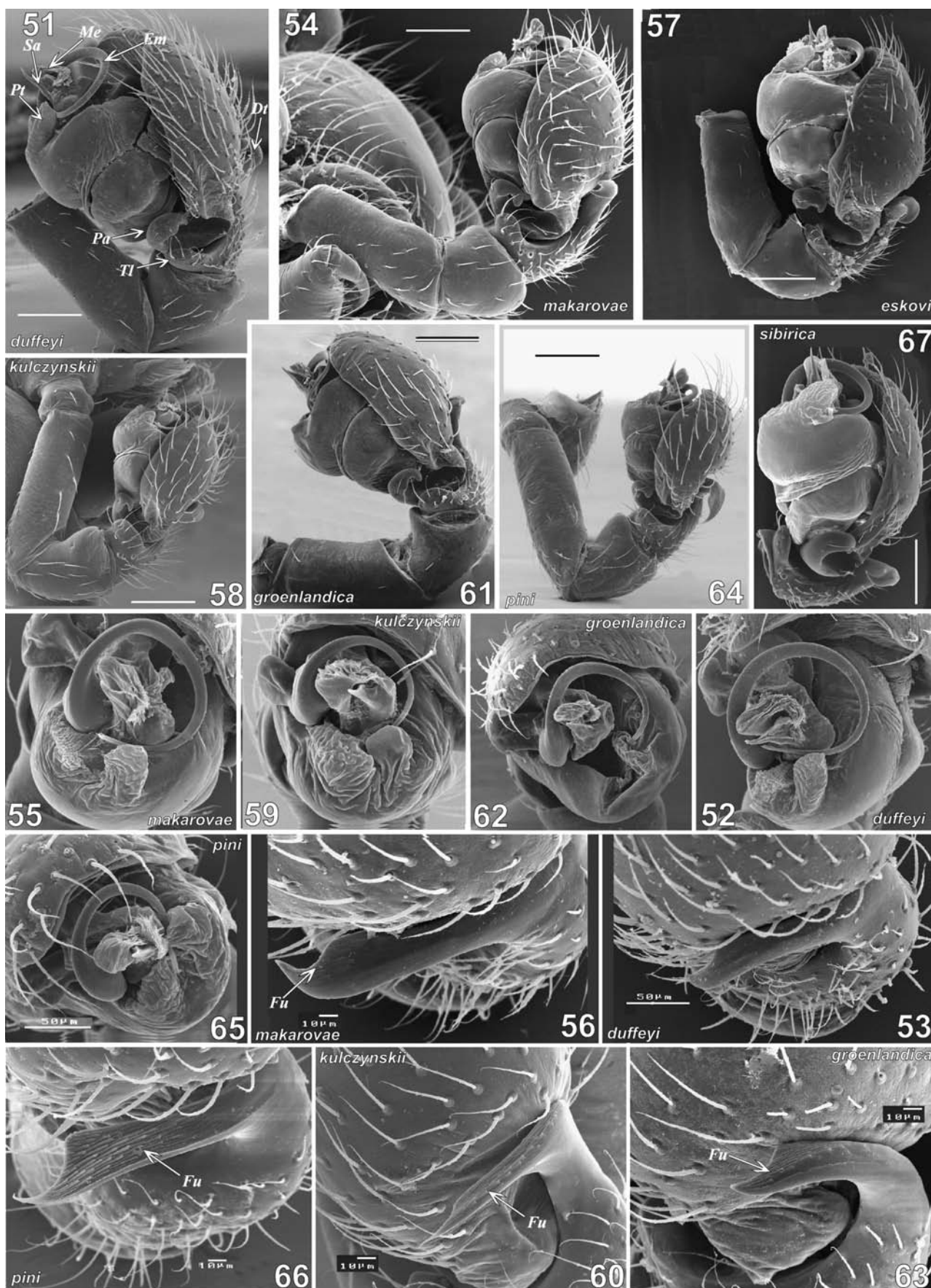
Ecology: This species prefers moderately humid and wet sites of varied salinity. It has been collected in four types of habitats within the seven main types represented on Dolgiy Island, namely: sea marshes within *Rhodiola rosea* and *Plantago maritima* sites (25 specimens), willow-moss communities among *Salix myrsinites*

shrubs (25), peat bogs (2) and meadow-like places (3). *Praestigia makarovae* sp. n. entirely avoids high seashore banks, zonal communities (with *Dryas-Hedysarum* and large-humpy (large-mound) *Cassiope* tundra), and river banks.

Distribution: So far known from the type locality, Dolgiy Island, and nearby Vaigach Island in the Barents Sea. It is very likely that records of *P. groenlandica* from south Yamal (Esyunin & Efimik, 1996) marked on the map with a question-mark, refer to this species. *Praestigia makarovae* sp. n. may also occur in adjacent Novaya Zemlya and western Taimyr.



Figs. 45–50: Prolateral view of male palp. **45** *Praestigia duffeyi* (Belgium); **46** *P. sibirica* sp. n. (Kular); **47** *P. eskovi* sp. n. (Kontakt); **48** *P. makarovae* sp. n.; **49** *P. uralensis* sp. n.; **50** *P. pini* (Mirnoye). Scale lines=0.1 mm. Abbreviations: Eb=embolic base; Em=embolus; Me=membrane; Pt=protegulum; Sa=supratregular apophysis; Tp=tailpiece; Ts=tregular sac.



Figs. 51–67: Male palps. 51–53 *Praestigia duffeyi* (Belgium); 54–56 *P. makarovae* sp. n.; 57 *P. eskovi* sp. n.; 58–60 *P. kulczynskii* (Magadan); 61–63 *P. groenlandica* (Ellesmere); 64–66 *P. pini* (Mirnoye); 67 *P. sibirica* sp. n. (Kular). 51, 54, 57–58, 61, 64, 67 Lateral view; 52, 55, 59, 62, 65 Terminal view; 53, 56, 60, 63, 66 Dorso-terminal view, showing structure of dorsal tibial apophysis. Scale lines in 51, 54, 57–58, 61, 64, 67=0.1 mm. Abbreviations: Dt=dorsal tibial apophysis; Em=embolus; Fu=furrows; Me=membrane; Pa=paracymbium; Pt=protégulum; Sa=supratégular apophysis; TI=tibial lobe.

Praestigia uralensis sp. n. (Figs. 9, 17, 24, 35, 43, 49)

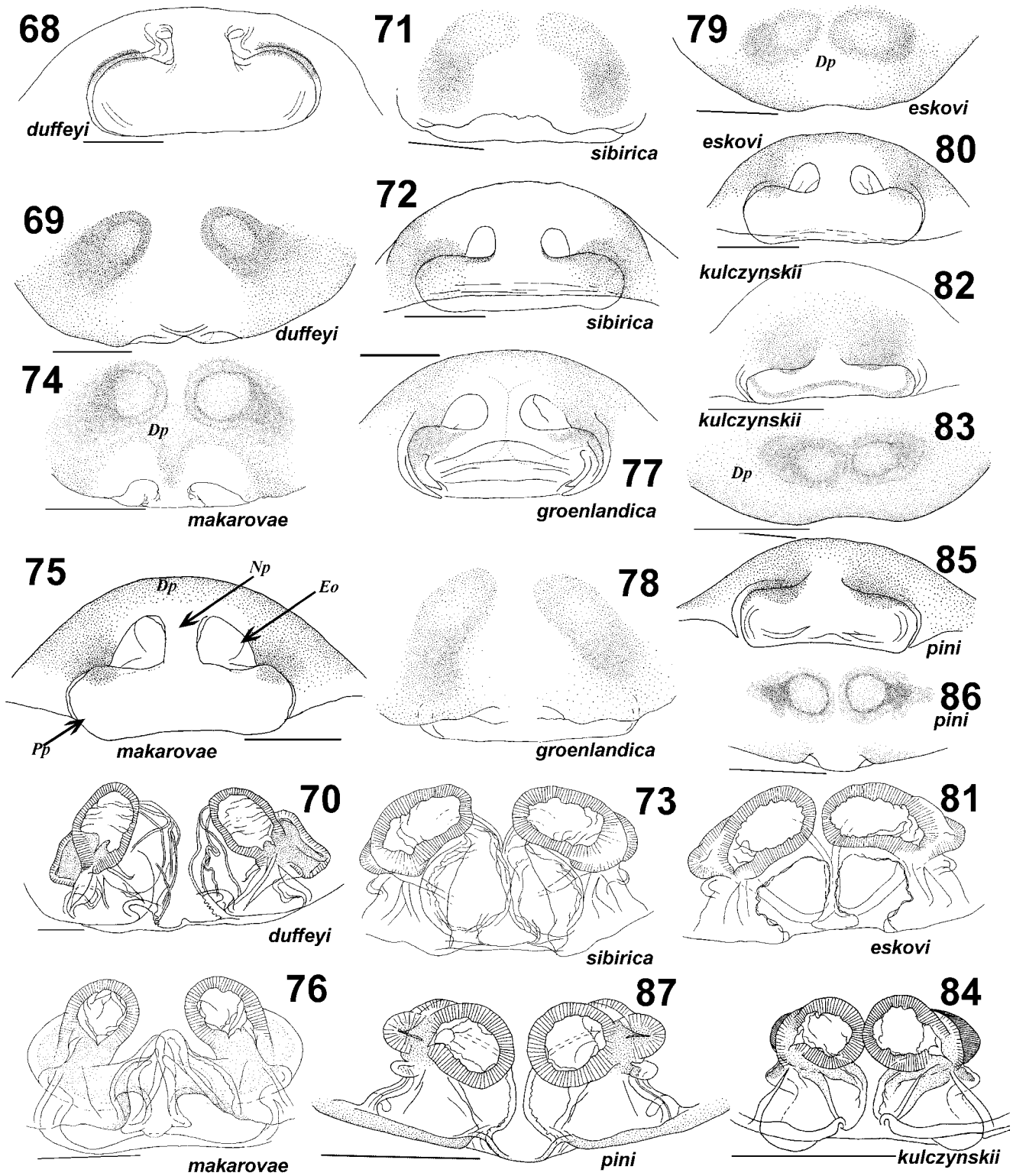
Praestigia duffeyi: Esyunin, 2006: 333 (misidentification, specimens examined).

Types: Holotype ♂ and paratype ♂ (both in ZMMU), Russia, North Urals, Ekaterinburg Area, Ivdel District, Denezhkin Kamen Mountain [c. 60°20'N, 60°E],

tundra with *Carex* and moss, 6 June 2001 (A. I. Yermakov).

Etymology: The specific name is derived from the area of occurrence of this species, namely Ural.

Description: Total length (with cap) 1.85. Carapace 0.98 (1.04 with cap) long, 0.73 wide. Leg I 0.69+0.27+0.63+0.48+0.37. TmI 0.86–0.88. Carapace as in Figs. 9,



Figs. 68–87: Epigynes. 68–70 *Praestigia duffeyi* (England); 71–73 *P. sibirica* sp. n. (Kular); 74–76 *P. makarovae* sp. n.; 77–78 *P. groenlandica* (Greenland); 79–81 *P. eskovi* sp. n.; 82–84 *P. kulczynskii* (Magadan); 85–87 *P. pini* (Mirnoye). 68, 72, 75, 77, 80, 82, 85 Caudal view; 69, 71, 74, 78–79, 83, 86 Ventral view; 70, 73, 76, 81, 84, 87 Ventral view after maceration. Scale lines=0.1 mm. Abbreviations: Dp=ventral plate; Eo=epigyne opening; Np=neck of median plate; Pp=posterior median plate.

17, brownish, forehead (space between cap and PME) yellow-brown, PME on distinct elevation. No typical distinct rostrum extending position of AME, but a triangular outgrowth, with cap well developed, almost triangular in profile (Fig. 9). Clypeus angular (not straight or rounded). Tarsi I and II slightly swollen. Palp as in Figs. 24, 35, 43, 49. Protégulum invisible in retrolateral view (Fig. 24). Female unknown.

Diagnosis: By the shape of the carapace *P. uralensis* sp. n. can be easily distinguished from all other species. The palp of the new species is rather similar to that of *P. kulczynskii* but is much larger, and has a relatively longer embolus and wider suprategular apophysis (Figs. 24, 43 cf. Figs. 25, 44).

Comments: This species (and material) was recently recorded sub *P. duffeyi* from Ural (Esyunin, 2006). The conspecificity of Ural and western European populations was already doubted by Esyunin (2006).

Ecology: The type series was collected from mountain tundra with *Carex* and moss.

Distribution: Type locality only, Ekaterinburg Area in northern Ural (Map 1).

***Praestigia kulczynskii* Eskov, 1979** (Figs. 10, 18, 25, 27, 36, 44, 58–60, 82–84, 90–91, 99–100, 104, 114)

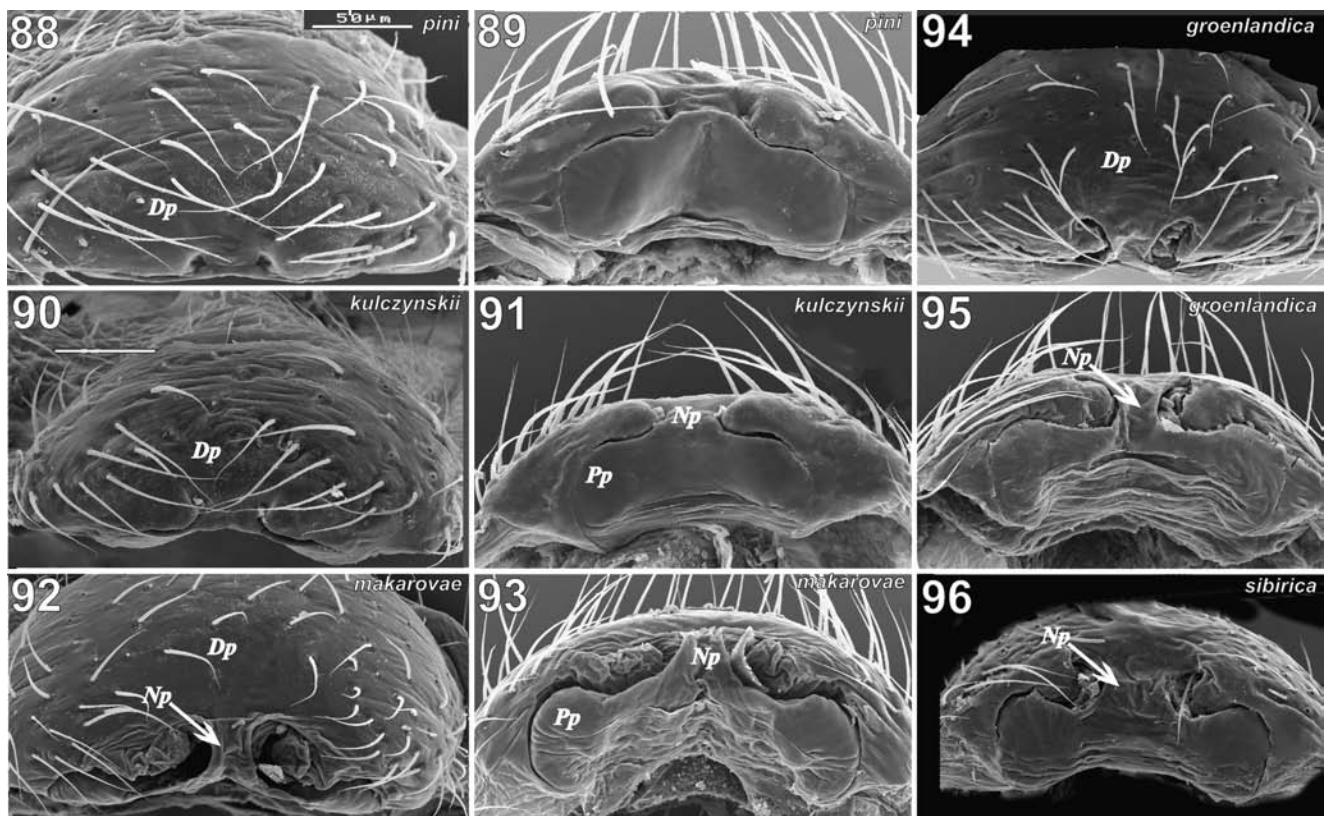
Praestigia kulczynskii Eskov, 1979: 70, figs. 3–5, 11–14, 19–20 (D♂♀).

Praestigia kulczynskii: Matsuda, 1986: 84, figs. 9–12 (♂♀).

Baryphyma kulczynskii: Saito, 1986: 5, figs. 10–14 (♂♀); Paquin & Dupérré, 2003: 90, figs. 784–787 (♂♀).

Material examined: RUSSIA: Perm Area: 10♂ 10♀ (PSU), Perm city, Dolgoye Lake, wet meadow, 1–3 May 1992 (V. O. Koz'minykh).

Krasnoyarsk Prov.: paratypes 5♂♀ (ZMMU-KE), Mirnoye Field Station (62°20'N), driftwood on Yenisei River bank, 9 June 1978 (K. Y. Eskov); 4♂♀ (ZMMU-KE), Komsa Vill., 8 August 1988 (A. Ryvkin). *Tuva*: 1♀ (IBPN), SE Tuva, Kargy River middle flow, 50°31'N, 97°03'E, 1400 m, 28–30 June 1996 (Y. M. Marusik). *Yakutia*: 2♀ (ZMMU-KE), Zhigansk, 1 July 1989 (K. Y. Eskov). *Khabarovsk Prov.*: 4♂♀ (ZMMU-KE), environs of Khabarovsk, Bychikha Vill., Bol'shekhkhtsyrski reserve, *Picea-Abies* forest, 9 June 1987 (D. V. Logunov). *Maritime Prov.*: 1♂ (ZMMU), Lazo Reserve, "Amerika" Kordon, forest opening, 9 May 1979 (T. I. Oliger). *Sakhalin Island*: 6♀ (IBPN), [01/] SE part, environs of Sokol Field Station, Belaya River middle flow, 47°14.560'N, 142°46.550'E, 16 July–11 August 2001 (Y. M. Marusik); 1♀ (IBPN), [03/] SE part, environs of Sokol Town, Sokol River middle flow, 47°13.200'N, 142°48.346'E, 18 July 2001 (Y. M. Marusik); 1♀ (IBPN), [04/] SE part, E shore, env. of Dolinsk, Bakhura River mouth, 47°13.760'N, 143°00.991'E, 19 July 2001 (Y. M. Marusik); 2♀ (IBPN), [06/] SE part, env. of Sokol Town, Malyi Takoi River basin, agricultural fields, 47°14.735'N, 142°42.075', 20 July 2001 (Y. M. Marusik); 2♀ (IBPN), [22/] CE part, Leonidovka River, 8 km SE of Leonidovo Vill., 49°16.506'N, 142°58.390'E, 9 August 2001 (Y. M. Marusik); 1♂ (ZMMU), environs of Aniva Town, 27 May 1988 (A. M. Basarukin). *Magadan Area*: 2♂♀ (ZMMU-KE), environs of Magadan, Snezhnaya Dolina Vill., summer 1986 (Y. M. Marusik); 1♂ (ZMMU-KE), same locality, Dukcha River, 25 June 1985 (Y. M. Marusik). *Kamchatka Peninsula*: 2♀ (IBPN), 10–12 km N of Paratunka Vill., Yelizovo Forestry, 53.050°N, 158.225°E, 15–28 July 2004 (A. S. Ryabukhin). CANADA: *Yukon Territory*: 1♀ (IBPN) (96) Kluane Lake, Cultus Bay, 138°20'W, 61°11'N, Rat Lake, willow groves with *Equisetum* and *Carex* on swampy bank, 23 July 1993 (Y. M. Marusik). *Québec*: 1♀ (ZMUT), Kuujuarapik, 55°17'N, 77°48'W, 20 August 1990 (S. Koponen); 1♂ (ZMUT), same locality, low alpine heath, 6–16 June 1990 (S. Koponen); 1♀ (ZMUT), Lac Nanuup, fen, 17 July–13 August 1990 (S. Koponen). *Nova Scotia*: 14♂♀ (CNC), Cape Breton Highlands National Park, Pleasant Bay, moist meadow, 23 May–1 June 1984 (L. Masner, det. C. Dondale, J. Redner/87).

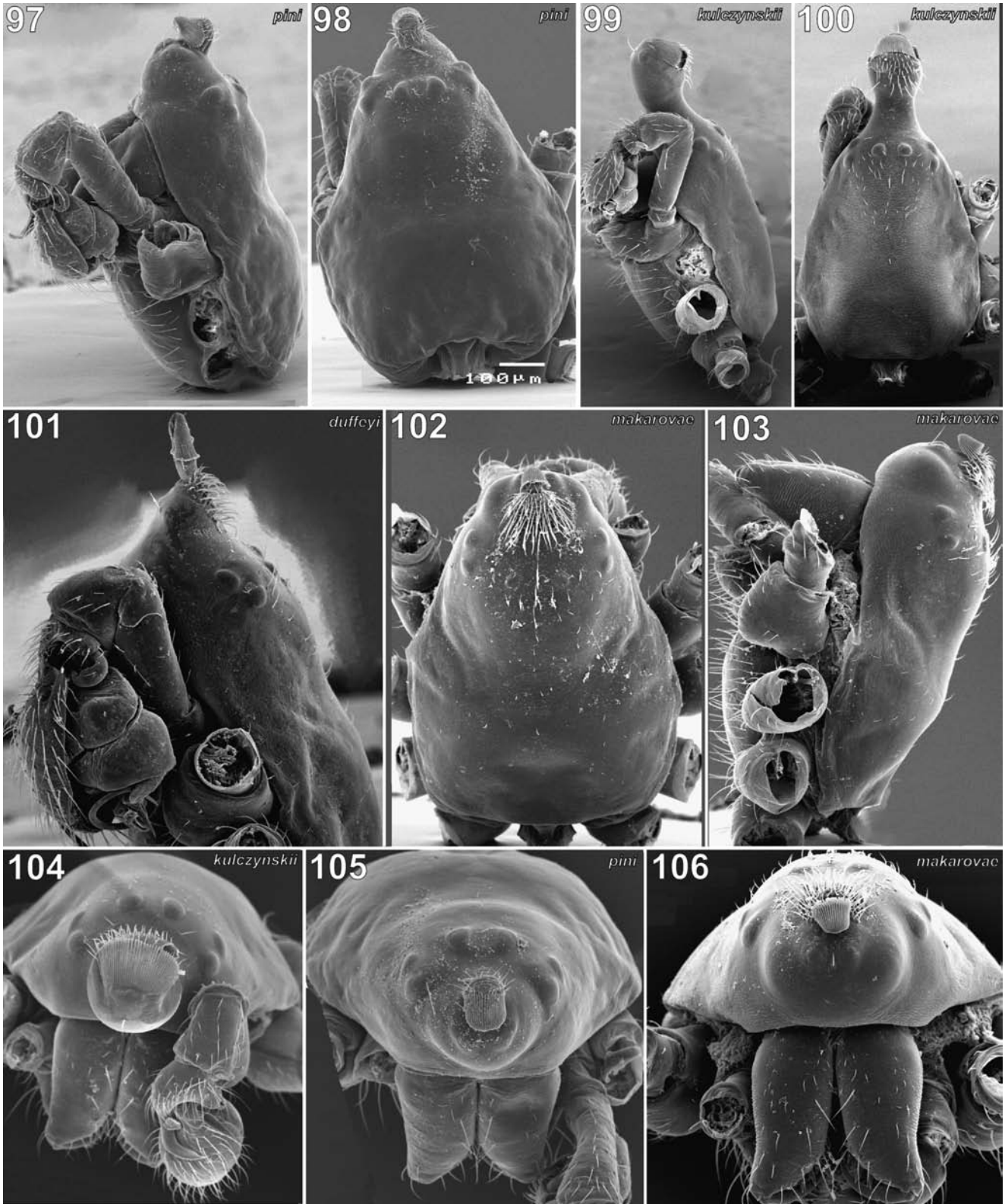


Figs. 88–96: Epigynes. 88–89 *Praestigia pini* (Mirnoye); 90–91 *P. kulczynskii* (Magadan); 92–93 *P. makarovae* sp. n.; 94–95 *P. groenlandica* (Greenland); 96 *P. sibirica* sp. n. (Ayan Lake). 88, 90, 92, 94 Ventral view; 89, 91, 93, 95–96 Caudal view. Scale equal for all figs. = 0.05 mm. Abbreviations: Dp=ventral plate; Np=neck of median plate; Pp=posterior median plate.

Misidentifications: Baryphyma kulczynskii: Dondale *et al.*, 1997: 82. Reported from Klwane Lake and Firth River. The latter record was checked, and it was shown that the single female from there belongs to *Mecynargus paetulus* (O. P.-Cambridge, 1875) (1♀ (CNC) Yukon Territory, British Mtns, June Cr. nr Firth R., 69° 13' N, 140° 05' W, 700 m, *Equisetum*, *Salix*, *Ranunculus*, *Do-*

decathon by stream — moist, 20 June 1984, VB55–84 (both det. C. Dondale, J. Redner/87).

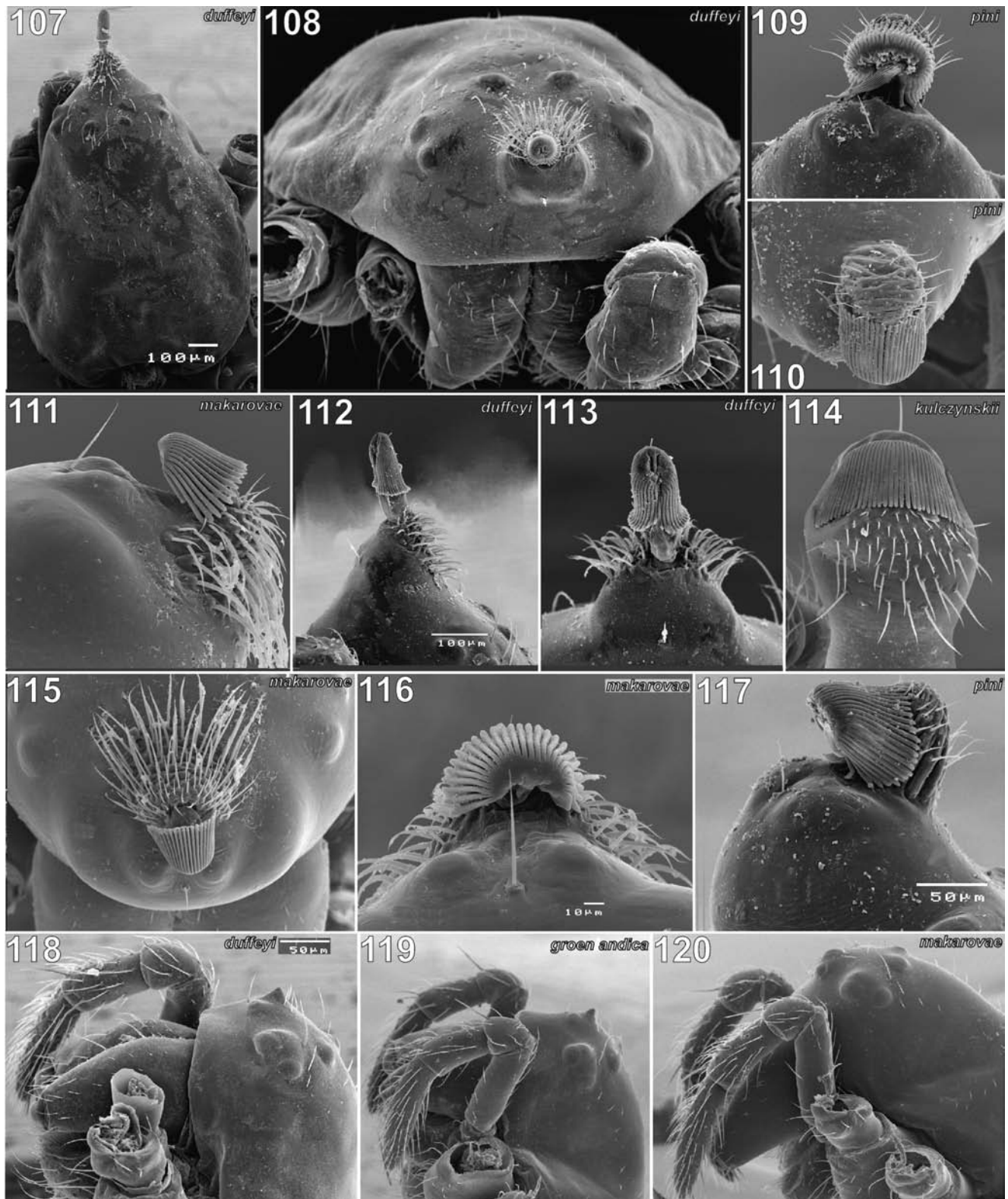
Description (based on Québec specimens): Total length 1.86/2.01 (♂/♀). Carapace 1.03/0.83 long, 0.59/0.63 wide. Leg I 0.51+0.21+0.43+0.34+0.29/0.47+0.24+0.47+0.39+0.27. Male carapace as in Figs. 10, 18, 99–100, 104, 114, grey-brownish to grey-yellowish.



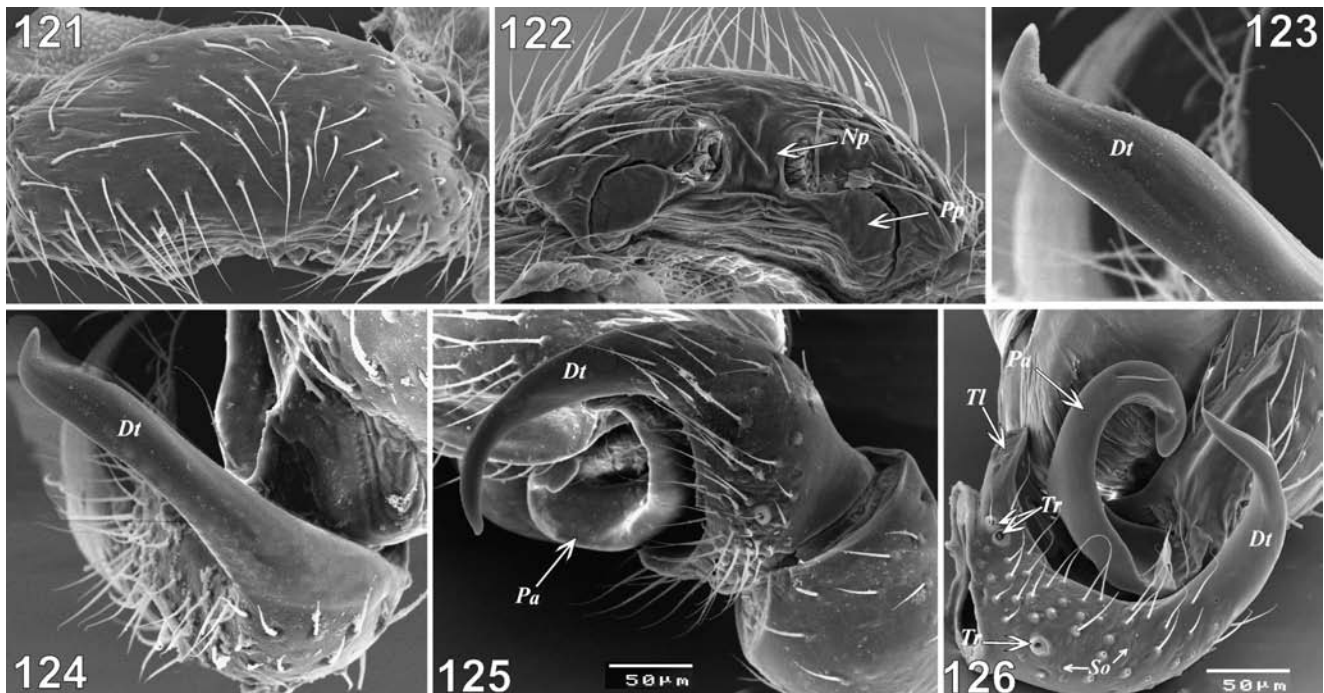
Figs. 97–106: Male carapaces. **97–98, 105** *Praestigia pini* (Mirnoye); **99–100, 104** *P. kulczynskii* (Magadan); **101** *P. duffeyi* (Belgium); **102–103, 106** *P. makarovae* sp. n. **97, 99, 101, 103** Lateral view; **98, 100, 102** Dorsal view; **104–106** Frontal view. Scale equal for Figs. 97–103=01. mm.

Rostrum very large, almost cylindrical, diameter $>\frac{1}{2}$ carapace height, length about two diameters. Cap flat, covering only dorsal half of rostrum tip. AME on rostrum, far from other eyes. Only terminal half of rostrum covered with fine sparse hairs. TmIV absent

(unlike in other species). In female tibial spines slightly shorter than diameter of tibia. In male spines very small, shorter than hairs on legs I–III, and as long as hairs on leg IV. TmI 0.83/0.89. Female carapace without cornicle. Male palp as in Figs. 25, 27, 36, 58–60. Dorsal tibial



Figs. 107–120: Carapaces. **107–108, 112–113, 118** *Praestigia duffeyi* (♂ Belgium, ♀ UK); **109–110, 117** *P. pini* (Mirnoye); **111, 115–116, 120** *P. makarovae* sp. n.; **114** *P. kulczynskii* (Magadan); **119** *P. groenlandica* (Greenland). **107, 110, 114–115** Dorsal view; **108** Frontal view; **109, 113, 116** Subventral view showing ventral side of cap; **111, 117–120** Lateral view. **107–117** Males; **118–120** Females.



Figs. 121–126: Copulatory organs of *Praestigia sibirica* sp. n. from Kular, NE Yakutia. **121–122** Epigyne, ventral and caudal view, respectively; **123–126** Male palp. **123–124** Tibial apophysis, dorso-terminal view; **125** Dorsal view; **126** Retrolateral view. Abbreviations: *Dt*=dorsal tibial apophysis; *Np*=neck of median plate; *Pa*=paracymbium; *Pp*=posterior median plate; *So*=slit organ; *Tl*=tibial lobe; *Tr*=trichobothrium.

apophysis forms almost right angle, dorsal side with longitudinal furrow along whole apophysis (Fig. 60). Protegulum invisible in lateral view, embolus very short. Tailpiece in ventral view slightly twisted but looks almost straight. Epigyne as in Figs. 82–84, 90–91. Neck of median plate reduced, lateral openings absent.

Comparison of males from Yenisei River and Nova Scotia revealed no differences in either carapace or palp shape.

Diagnosis: The very long and thick rostrum (longer than wide), flat cap and tibial apophysis distinguish this species from the other congeners. Females of *P. kulczynskii* are indistinguishable by the shape of the epigyne from *P. pini*, but clearly differ from the other species by the reduced neck of the median plate and lack of lateral openings. Females of these two species can be separated by the presence (*P. pini*) or absence (*P. kulczynskii*) of a metatarsal trichobothrium on leg IV.

Ecology: By the Yenisei River this species was found in riverside habitats, some specimens were found among driftwood, others in floodplain meadows and under alder shrubs along the river (Eskov, 1988). In Magadan Area all specimens were collected along creeks from the pebbly beaches (YM, pers. data). In eastern Canada, it was found both in moist and boggy areas, and on alpine heaths.

Distribution: This species seems to have the widest range among the genus: trans-Siberian-trans-Nearctic boreo-nemoral, and known from Perm' City, Ural, northward to lower Lena River, eastward to Kamchatka and southward to Tuva, Khabarovsk and Hokkaido (Eskov, 1994). In the Nearctic it is known from Yukon Territory to Newfoundland, and south to southern Alberta and Maine (Dondale *et al.*, 1997).

***Praestigia pini* (Holm, 1950)** (Figs. 11, 19, 26, 37–38, 50, 64–66, 85–87, 88–89, 97–98, 105, 109–110, 117)

Cornicularia pini Holm, 1950: 141, figs. 12a–h (D♂♀).

Praestigia pini: Palmgren, 1976: 93, figs. 23.15–17 (♂♀).

Material examined: FINLAND: *Inari Lapland*: 1♀ (ZMUH, paratype*), “68, Utsjoki, Pihtioja, på björk [=on birch], 9 July 1949” (Hackman); 1♂ 2♀ (AW-171, ZMUT), Utsjoki, Kevo, Puksalskaidi, 27 June 1972 (S. Koponen); 1♂ (ZMUT), same locality, 22 June 1971 (S. Koponen). RUSSIA: *Bashkortostan*: 2♂♀ (PSU), Shulgan-Tash Reserve (c. 53°N, 57°E), 20 June 1986 (Efimik). *Tyumen' Area*: 1♂ (PSU), South Yamal, Khadyta-Yakha River, *Lobelia*-herbaceous meadow, c. 67°N, 69°30'E, 17 August 1981 (S. L. Esiyunin). *Krasnoyarsk Prov.*: 1♂ 3♀ (ZMMU-KE), Mirnoye Field Station (c. 62°20'N), in crown of *Pinus*, no date (K. Y. Eskov); 2♂♀ (ZMMU-KE), same locality, *Pinus* forest, sweeping *Chamaedaphne calyculata*, 2 July 1978 (K. Y. Eskov); 1♂ (ZMMU-KE), same locality, Yenisei River, sandy beach, 13 June 1977 (K. Y. Eskov). *Tuva*: 1♂ 3♀ (ZMMU-KE), Todzha Distr., Azass Reserve, birch–poplar–larch forest, 20 June 1989 (D. V. Logunov). *Buryatia*: 2♀ (ZMUT), Djirga Station, 54°55'N, 111°07'E, 600 m, 11 July 1996 (S. Koponen); 1♀ (ZMUT), Barguzin Range, Olso River, 54°52'N, 110°55'E, 950 m, 4 July 1996 (S. Koponen). *Yakutia*: 1♀ (ZMMU-KE), West Yakutia, Kempendyai River 80 km upstream from mouth, riverside meadow, 1–15 August 1988 (K. Y. Eskov). *Sakhalin Island*: 2♂♀ (ZMMU-KE), Tomari Distr., Oinskoye Lake, Ptichya River, meadow, 11 June 1984 (A. M. Basarukin). MONGOLIA: *Tov (=Central) Aimak*: 1♂ (IBPN), [14] Baga-Mukhar, 48°22'N, 106°18'E, 1100 m, pitfall traps in birch stand, 18–23 June 1997 (Y. M. Marusik).

Description (based on Holm (1950) and Utsjoki specimens): Total length 2.03/2.57. Carapace 0.87–0.95/0.86–0.87 long, 0.67–0.71/0.7–0.73 wide. Leg I 0.68+0.23+0.59+0.41/0.68+0.27+0.54+0.49+0.38. TmI 0.85/0.89. Carapace as in Figs. 11, 19, 97–98, 105, 109–110, 117. Rostrum of male carapace directed forward and slightly

*Holm marked this specimen as paratype, although it was not mentioned in the text.

upward, its width equal to length; with sparse hairs in terminal half, their length less than rostrum diameter. Rostrum and forehead form almost right angle. Cap wider than long, margins apparently merged. Clypeus rounded. Female carapace without cornicle. Male palp as in Figs. 26, 37–38, 50, 64–66, relatively small. Dorsal tibial apophysis abruptly narrowed at tip with thin spine-like extension, dorsal side with longitudinal furrow along terminal half of apophysis (Fig. 66). Epigyne as in Figs. 85–87, 88–89, median plate with reduced neck, therefore lateral openings absent, receptacula almost round.

Diagnosis: The male carapace of this species is most similar to that of *P. makarovae* sp. n., but the rostrum is longer, and carapace size significantly smaller. Unlike in all other species the dorsal tibial apophysis is truncated at the tip, not gradually tapering. Females of this species have a reduced neck of the median plate and have no openings, as in *P. kulczynskii*. Females of these two species are almost indistinguishable.

Ecology: The type series was collected from spruce (Holm, 1950). In Finnish Lapland *P. pini* was found for the first time on birch (Palmgren, 1976). Later, Koponen (1977) listed it as a typical species in mountain birch forest at the Kevo Field Station, Finnish Lapland. This species is known to occur in Middle Siberia on tree trunks, in crowns, on shrubs, among undergrowth in mature taiga, in sphagnum bogs, dry meadows and on sandy-pebble river beaches (Eskov, 1988). In Mongolia one male was collected in a birch stand (Marusik & Logunov, 1999).

Note: Although the holotype male and allotype female were collected from spruce — “auf Fichten”, it was named *pini*, which means “from pine”.

Distribution: Trans-Palaeartic boreal range: from north Scandinavia (Palmgren, 1976) via South Ural, South Siberia and northern Mongolia (Marusik & Logunov, 1999) to South Sakhalin (Eskov, 1994).

Relationships

Praestigia belongs to the *Pelecopsis* group *sensu* Millidge (1977). This group encompasses about 40 genera. Judging from the shape of the male palp *Praestigia* is closest to *Baryphyma* Simon, 1884, with which it was earlier synonymised. While the embolic divisions of *Praestigia* and *Baryphyma* are rather similar, somatically these genera are rather different. Although we agree with Millidge (1977) that *Praestigia*, *Baryphyma*, *Minyrioloides* Schenkel, 1930 and *Acanthophyma* Locket, Millidge & Merrett, 1974 are closely related genera, it seems that these genera are distant from *Pelecopsis*. It appears that the *Pelecopsis*-group (of genera) *sensu* Millidge (1977) is unnatural and includes unrelated genera such as *Silometopus* Simon, 1926, *Scotinotylus* Simon, 1884 and *Ceratinella* Emerton, 1882. The last two genera have entirely different embolic divisions and belong to the *Walckenaeria* complex of genera with screwed embolic division and long embolus.

Comments on a species wrongly assigned to *Baryphyma*

Micrargus longitarsus (Emerton, 1882) **comb. n.**

Lophocarenum longitarsus Emerton, 1882: 48, pl. 13, fig. 4 (D♂).

Erigone longitarsis: Marx, 1890: 534.

Lophomma longitarsus: Simon, 1894: 659.

Baryphyma longitarsum: Crosby & Bishop, 1933: 153, pl. 7, figs. 177–180 (♂); Kaston, 1948: 176, figs. 495–498 (♂); Levi, 1951: 8, figs. 11–12 (D♀).

“*Baryphyma*” *longitarsum*: Millidge, 1977: 30 (suggested relationship to *M. herbigradus*).

Micrargus longitarsus: Buckle *et al.*, 2001: 132 (new combination was not formally stated).

Comment: It seems that Millidge (1977) was the first who indicated the relationship of this species to *M. herbigradus* but he put the generic name *Baryphyma* in quotation marks. Millidge’s opinion was accepted by Buckle *et al.* (2001). Unfortunately a new combination was not formally suggested by either Millidge (1977) or Buckle *et al.* (2001) and therefore Platnick (2006) lists *longitarsum* in *Baryphyma*. Judging from the shape of the copulatory organs in both sexes we agree that “*B.*” *longitarsum* should be placed in *Micrargus*: *Micrargus longitarsus* (Emerton, 1882) **comb. n.** This species is known from Wisconsin east to New Brunswick and Québec (Buckle *et al.*, 2001).

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