

Re-examination of the erigonine spiders "*Micrargus herbigradus*" and "*Pocadicnemis pumila*" (Araneae: Linyphiidae)

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Summary

The "species" *Micrargus herbigradus* in Europe is composed of 3 closely related species: *M. herbigradus* (Bl.), *M. apertus* (O. P.-Cambr.) and *M. georgescuae* n.sp. The "species" *Pocadicnemis pumila* in Europe is composed of 4 closely related species: *P. pumila* (Bl.), *P. juncea* Locket and Millidge, *P. neglecta* n.sp. and *P. jacksoni* n.sp.; and in N. America it is composed of 3 closely related species: *P. pumila* (Bl.), *P. americana* n.sp. and *P. occidentalis* n.sp. Diagnoses for all these species are given. *P. prominens* Simon 1884 = *Lasiargus hirsutus* (Menge 1869) (nov. syn.).

1. The Species "*Micrargus herbigradus*"

The erigonine spider *Micrargus herbigradus* (Bl.) is usually regarded as so common and widespread throughout Europe that it is not worth a second glance! Detailed examination has shown, however, that in Britain 2 species, and in Europe 3 species, have been confused under this name.

It was Georgescu (1971) who first pointed out that "*M. herbigradus*" has a close relative (described as a sub-species "*carpaticus*"). Although the male palps of the 2 forms described showed only small differences, the female vulvae were so distinct that it seemed to me that they must represent separate species. The species "*carpaticus*" appeared to be very rare (only 2♀ 1♂ were known, from Romania), but the present investigation has shown that both species occur widely; Wiehle's figures for *M. herbigradus* (1960, figs 477, 481) are in fact recognisably the same as Georgescu's "*carpaticus*".

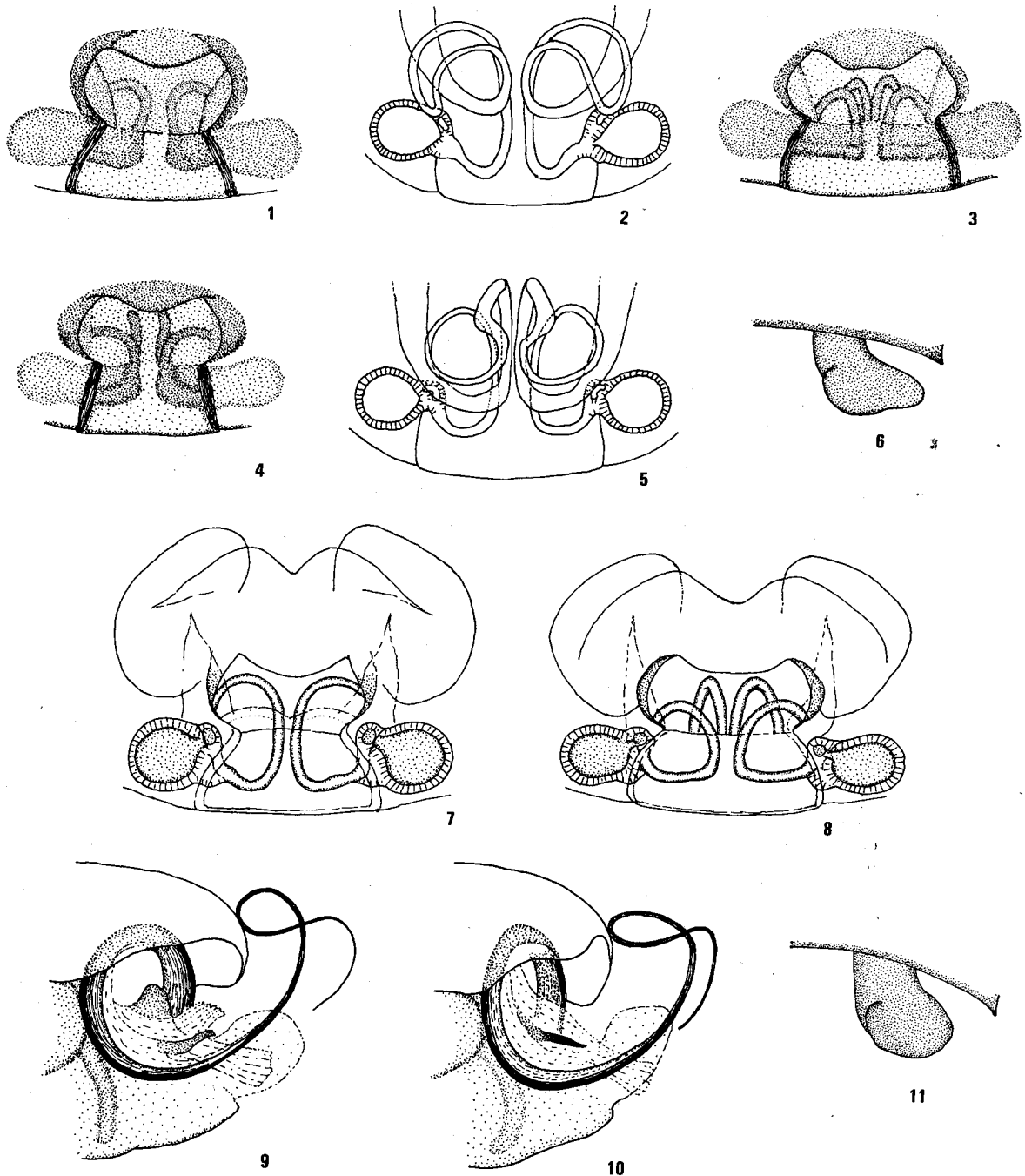
The females of the two species are easily diagnosed by the shape of the seminal ducts, which can often (but not invariably) be seen without clearing by looking *inside* the epigynal cavity with a powerful incident light. One species (A) has a single coil of duct visible on each side (Fig. 1), while the other (B) has 2 coils visible on each side (Figs 3, 4). The structures

are seen more distinctly in detached vulvae immersed in 90% phenol, and the dorsal aspect shows clearly the differences in the convolutions of the ducts (Figs 2, 5). No intermediates between the 2 configurations have been seen. The differences in the male palp which are described below are less obvious, but also apparently constant.

Two questions on nomenclature immediately arise: 1. Since both species occur in Britain, which is the true *herbigradus* (Bl.)? 2. What should be the name of the second species? There are no types of *herbigradus* (Bl.), and Blackwall's figure (1864, fig. 199 c) is not detailed enough in the light of the present work. Hence question 1 can never be answered absolutely categorically. Specimens of *Micrargus* captured in 2 localities 11 km and 19 km from Blackwall's original locality in N. Wales (collector: J. R. Parker) are however entirely species (A), and in Britain moreover species (B) tends to be more southern in distribution. The balance of probability, therefore, is that species (A) is *herbigradus* (Bl.), and it is so described in this paper. Species (B) is identical with *Neriene aperta* Cambridge 1870 (2 females labelled *Porrhomma apertum* from Bloxworth, Jar 4480, Tubes xi and xii, Hope Dept., Oxford); hence (B) must be named *Micrargus apertus* (Cambr.).

Examination of a large number of specimens of "*M. herbigradus*" from Czechoslovakia (lent by Prof. Miller) showed that these were overwhelmingly *herbigradus* (Bl.). No specimens of *apertus* were present, but one tube contained 3♀ 1♂ of a *Micrargus* species which was neither *herbigradus* nor *apertus*. A pair of this new species was also found in a tube of *M. herbigradus* taken near Innsbruck, Austria (lent by Dr K. Thaler). This species, which is closely related to *herbigradus* and *apertus*, is *M. georgescuae* n.sp. (see below).

M. herbigradus, *apertus* and *georgescuae* are regarded as separate species, since they show constant morphological characters; e.g. identical vulvae and palpal organs are possessed by specimens of *herbigradus* from Britain, Germany, Sweden, Switzerland, Austria, Yugoslavia, Czechoslovakia and Romania, and by specimens of *apertus* from Britain, S. France, Sweden and Romania. No intermediates have been seen. Few specimens of *georgescuae* are so far available, but specimens from Czechoslovakia and Austria appear to be identical.



Figs. 1-11: *Micrargus herbigradus* (Bl.). 1 Epigyne; 2 Vulva (dorsal); 6 Posterior lobe of embolic division (mesal view); 7 Vulva (ventral); 9 Tip of male palp (lateral view).

M. apertus (O. P.-Cambr.). 3 Epigyne; 4 Ditto, another specimen; 5 Vulva (dorsal); 8 Vulva (ventral); 10 Tip of male palp (lateral view); 11 Posterior lobe of embolic division (mesal view).

There seem to be no reliable diagnostic differences between the 3 species apart from the sex organs, although *georgescuae* shows in addition a small difference in the tibial apophysis in the male. *M. herbigradus* tends to be slightly smaller in size than *apertus*, and differs very slightly from *apertus* in the post-ocular sulci (δ), but these are not reliable diagnostic characters.

Micrargus herbigradus (Bl.)

Neriene herbigrada J. Blackwall 1854, p. 179 *Micrargus h.* H. Wiehle 1960, p. 262. *M. h. carpaticus* Georgescu 1971, p. 235. *non M. h.* δ G. H. Locket and A. F. Millidge 1953, fig. 171 D.

♀. Diagnosed by the vulva, where the arrangement of the spermathecal ducts is characteristic (Figs 1, 2, 7). The second coil is only lightly sclerotised, and is not or scarcely visible when the cleared vulva is viewed from the ventral side.

In *herbigradus*, as in *apertus*, the ducts lie in a plane which sometimes is almost vertical to the ventral surface of the abdomen, and are then difficult to see clearly except in a detached vulva. In all three species described, the ducts emanate from funnel-shaped entrances within the epigynal atrium, and these presumably guide the whiplike embolus into the ducts.

♂. Diagnosed by the form of the small "process" within the anterior coil of the embolus (Fig. 9); in this species the process is only lightly sclerotised (light in colour) and is truncated and rather blunt at the distal end. The membrane lying above the process is somewhat fan-shaped, but is difficult to see. The posterior lobe of the embolic division (Fig. 6) differs slightly in shape from those of the other species. All these diagnostic characters are best seen in the unexpanded palpal organs. The short embolus shown by Georgescu (1971) must almost certainly have resulted from the breaking off of the tip of the embolus.

Material. I have seen specimens from Britain, Germany, Sweden (Lapland), Switzerland, Austria, Yugoslavia and Czechoslovakia; it also occurs in Romania. It is therefore to be found throughout Europe, but exact information on its distribution and ecology are lacking; in particular, how its ecology differs from that of *apertus* is unknown.

Since Blackwall did not designate types, and his material no longer exists, a neotype female taken in

N. Wales close to Blackwall's original locality has been designated (coll. J. R. Parker: Llyn Crafnant), and this neotype together with a male have been deposited in the British Museum (Natural History).

Micrargus apertus (O. P.-Cambridge)

Neriene aperta O. P.-Cambridge 1870, p. 450. *Erigone mordens* Thorell 1871, p. 144 (δ type, Coll. Thorell 5/63, Naturh. Riksmuseum, Stockholm). *Micrargus canescens* J. Denis 1952, p. 2. *M. herbigradus* (δ only) G. H. Locket and A. F. Millidge 1953, fig. 171 D; (δ and ♀) Georgescu 1971, p. 240.

♀. Diagnosed by the vulva, which has a characteristic arrangement of the spermathecal ducts (Figs 5, 8). The inner coils are more highly sclerotised than in *herbigradus*, and are often visible inside the epigynal cavity (Figs 3, 4).

♂. Diagnosed by the form of the process within the coil of the embolus (Fig. 10); the process is more highly sclerotised (usually black in colour) and has the distal end distinctly pointed. The process is shorter and less prominent than in *georgescuae*. The fan-shaped membrane present in *herbigradus* appears to be absent. The posterior lobe of the embolic division (Fig. 11) differs slightly in shape from those of the other species. The proximal part of the embolic division (Fig. 14) is noticeably narrower than in *georgescuae*.

Material. I have seen specimens from Britain (southern counties: Surrey and Dorset (Merrett) and I. of Wight (author)), Sweden (Uppsala), S. France (eastern Pyrenees: author) and Germany (1 ♀ amongst Wiehle's specimens of *herbigradus*); Georgescu (1971) records it from Romania. It is to be expected in other European countries.

The Cambridge specimen from Bloxworth in Tube xi of Jar 4480 (Hope Dept., Oxford) is a female and is the holotype of the species, and a ♂ of the species from Wareham (Dorset) (coll. P. Merrett) has also been deposited in the Hope Dept.

Micrargus georgescuae n.sp.

In colouration and chaetotaxy the species agrees entirely with *herbigradus* and *apertus*.

♀. Length 1.8 — 2.0 mm, carapace length 0.85 — 0.90 mm. Tm. I 0.33 — 0.37. Diagnosed by the vulva, which has a characteristic arrangement of the spermathecal ducts (Figs 15, 17). The outer epigyne is

indistinguishable from *herbigradus* and *apertus*, but the arrangement of the ducts seen inside the epigynal cavity (Fig. 12) is distinguishable (in the specimens so far seen) from *herbigradus* and *apertus*.

♂. Length ca. 1.85 mm, carapace length 0.90 – 0.95 mm. Tm I ca. 0.30. Diagnosed: 1. By the form of the process within the coil of the embolus (Fig. 16): the process is pointed and highly sclerotised, and longer and more prominent than in *apertus*. 2. By the broadness of the proximal part of the embolic division (Fig. 13, cf. Fig. 14). 3. By the shape of the posterior lobe of the embolic division (Fig. 18). 4. By the palpal tibia, which appears to be free of the rugosity or pitting present in *herbigradus* and *apertus*, and has the apophysis rather different in shape (Fig. 19, cf. Fig. 20); in view of the considerable variation in the tibial apophyses of *herbigradus* and *apertus* (Georgescu 1971) it is not certain that this character is reliable for diagnosis.

The vulva of this species is closest to *herbigradus*, but the process of the male palp is closer to *apertus*.

Material. 1 ♀ 1 ♂ from Austria (Wurgltal, Nordtirol, pitfall traps 18 May – 18 July 1963: coll. K. Thaler); 3 ♀ 1 ♂ from Czechoslovakia (Jindrichuv Hradec and Sobeslav in S. Bohemia) (Miller). A holotype ♂ (Austria) and paratype ♀ (Austria) will be deposited in Naturhistorisches Museum, Basel.

2. The Species "*Pocadicnemis pumila*".

The species *P. pumila* (Bl.) is reported as widespread and common throughout most of Europe and N. America. A detailed examination of this "species" shows that probably no less than 6 species (4 in Europe and 3 in N. America) are currently confused under this name!

No types exist of Blackwall's *pumila*, and in the light of the work reported here his figures (Blackwall 1864, fig. 227) do not have the necessary detail to define his species, but there is nevertheless no real doubt as to its true identity. The common *Pocadicnemis* species in Britain, and the only species which seems to be found in the more northern counties where Blackwall collected, is the one described (Locket and Millidge 1953) as *P. pumila* (Bl.). This is confirmed by specimens (supplied by J. R. Parker and R. Leighton) collected in Blackwall's locality in N. Wales, which all belong to the species described below as *pumila*.

A "variety" of *pumila*, with differences in the epigyne, was named *juncea* (♀ only) by Locket and Millidge (1953), on the basis of unpublished work by Jackson, but Locket, Millidge and Merrett (1974) regarded the *juncea* epigyne as within the range of natural variation of *pumila* and dropped this "variety". This was a mistake, and further study has shown that *juncea* is in fact a good species which is readily distinguished morphologically from *pumila* in both sexes. *P. juncea* appears to be the correct name for this species, a variety name being available under Article 17(9) of I.C.Z.N.

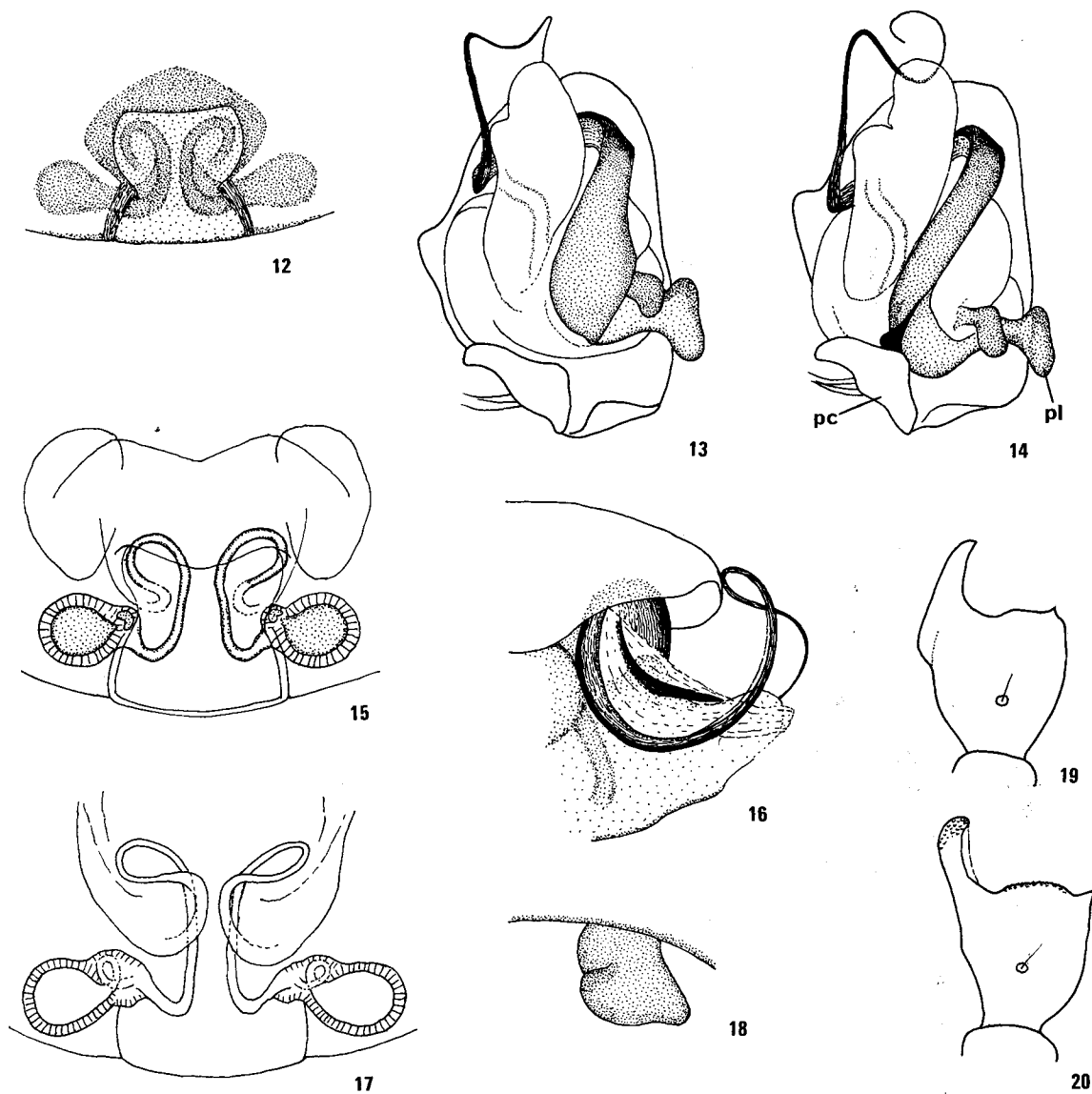
P. juncea is not identical with *Neriene nefaria* O. P.-Cambridge 1879 or with *Susarion neglectum* O. P.-Cambridge 1900, both of which are reported to be synonyms of *pumila* (Bl.) (O. P.-Cambridge 1905, p. 51, and 1903, p. 157 respectively): this synonymy has been confirmed by the author.

A tube labelled *P. pumila* from Austria (near Innsbruck: K. Thaler) contained a few typical specimens of *pumila* (Bl.) (both sexes) but was very largely another species. A female of the same species was received from Czechoslovakia (Miller). This species has the ♂ palp very close to *juncea*, but the ♀ epigyne/vulva differs from *pumila* and *juncea*, being to some extent intermediate between them. This species is *P. neglecta* n.sp. (see below). Although the specimens from Austria were mixed with some *pumila*, there were no males present which were intermediate between *neglecta* and *pumila*; intermediate females (if they existed) would probably be impossible to recognise morphologically.

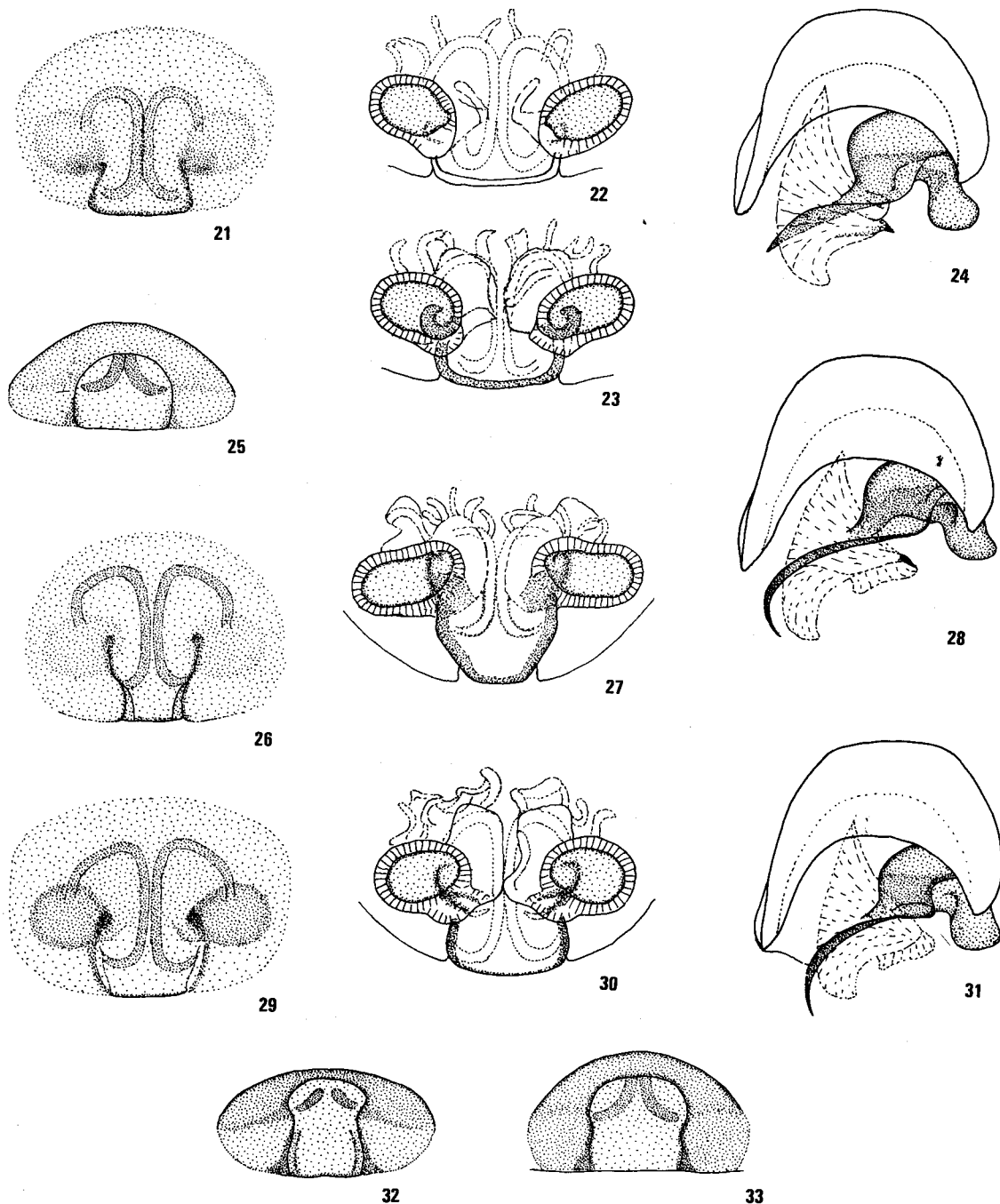
Several *Pocadicnemis* females taken by the author in the eastern Pyrenees have the epigyne very similar to *pumila*, but the vulva is quite distinct from *pumila*, *juncea* and *neglecta*, being probably identical with that figured by Wiehle (1960, fig. 684). This is *P. jacksoni* n.sp. The male figured by Wiehle (1960) seems probably to be *juncea*, but I have not yet been able to examine Wiehle's specimens.

P. carpatica Kulcz. (*Maso spinipes* Wiehle 1967) has the epigyne/vulva very close to *pumila*, but the male palp is quite distinct. In addition, this species is immediately distinguishable from the other *Pocadicnemis* species by the much stouter spines beneath the tibiae and femora of the first 2 pairs of legs.

Pocadicnemis prominens Simon 1884 (Tube No. 4866 B.886, M.N.H.N.) is *Lasiargus hirsutus* (Menge



Figs. 12-20: *Micrargus apertus* (O. P.-Cambr.). 14 Male right palp (from below) (pc= paracymbium, pl= posterior lobe of embolic division); 20 Right palpal tibia (from above).
M. georgescuae n.sp. 12 Epigyne; 13 Male right palp (from below); 15 Vulva (ventral); 16 Tip of male palp (lateral view); 17 Vulva (dorsal); 18 Posterior lobe of embolic division (mesal view); 19 Right palpal tibia (from above).



Figs. 21-33: *Pocadicnemis pumila* (Bl.). 21 Epigyne (from below); 22 Vulva (ventral); 23 Vulva (dorsal); 24 Right male palp from in front; 25 Epigyne (from behind).
P. juncea L. and M. 26 Epigyne (from below); 27 Vulva (dorsal); 28 Right male palp from in front; 32 Epigyne (from behind).
P. neglecta n.sp. 29 Epigyne (from below); 30 Vulva (dorsal); 31 Right male palp from in front; 33 Epigyne (from behind).

1869) — nov. syn.

The N. American species *Lophocarenum longitubum* Emerton 1882 was synonymised with *P. pumila* by Crosby and Bishop (1933). Examination of the types (Museum of Comparative Zoology, Harvard) shows this to be correct. Specimens of *P. pumila* from the American Museum of Natural History, N.Y., from several American localities, contained no examples of *P. pumila* (Bl.), but consisted of 2 very closely related species (described below as *P. americana* n.sp. and *P. occidentalis* n.sp.). Examination of *P. hartlandiana* Emerton (Crosby and Bishop 1933) shows that it does not belong in *Pocadicnemis*.

Although the forms described here are obviously very closely related to one another, they are regarded (at least for the present) as distinct species because they seem to show constant morphological characters (♀ and ♂), and there appear to be few if any intermediates even in mixed populations. The females are all very similar, but the epigynes (despite some variation) are usually distinguishable. The vulvae show what seems to be a complicated tangle of spermathecal ducts, arranged rather asymmetrically, and these small ducts are variable in position within one species. The vulvae are all very similar, only *juncea* and *jacksoni* being perhaps fairly distinctive. The ♂ palps are all very alike, but the form of the median apophysis is different in each species (though in *juncea/neglecta* and *americana/occidentalis* the difference is very small), and there are also minor differences (but larger in *carpaticus*) in the membranous appendage of the embolic division which lies in front of the median apophysis. Because the morphological differences in these species can be very small, it is only the combination of the male and female characters which is distinctive for each species; for the reliable identification of a species, specimens of both sexes are therefore desirable in most cases.

All the species closely resemble *pumila* in colour, size and chaetotaxy (except that, as mentioned above, *carpaticus* has stronger ventral spines on the legs), and general descriptions of the species will not therefore be given.

Pocadicnemis pumila (Bl.)

Walckenaera pumila J. Blackwall 1841, p. 639; 1864, p. 312. *Neriere nefaria* O. P.-Cambridge 1879, p. 200. *Susarion*

neglectum O. P.-Cambridge 1900, p. 36. *Lophocarenum longitubum* J. H. Emerton 1882, p. 49. *Pocadicnemis p. G.* H. Locket and A. F. Millidge 1953, p. 235. non *P. pumila* C. R. Crosby and S. C. Bishop 1933, fig. 130.

♀. Diagnosed by the epigyne, particularly when viewed from behind (Figs 21, 25). The vulva (Figs 22, 23) is probably not distinguishable with certainty from *neglecta* and *carpatica* in Europe.

♂. Diagnosed by the form of the median apophysis (Fig. 24), which is significantly different from those of the other *Pocadicnemis* species.

Material. *P. pumila* is the common species in Britain, but from outside Britain I have to date seen specimens only from Sweden (Holm) and Austria (Thaler). It seems likely, however, that this species is the more dominant one in northern and western Europe. Clearly it overlaps in range with *juncea* and *neglecta*, but how the ecology of the two species differs is not known. The N. American record (*longitubum* Em.) is from the north-eastern corner of the United States.

Since Blackwall's material no longer exists, it is proposed to designate a neotype male, emanating from or near to Blackwall's locality. This neotype, together with a ♀, will be deposited at the BM (NH).

Pocadicnemis juncea Locket and Millidge

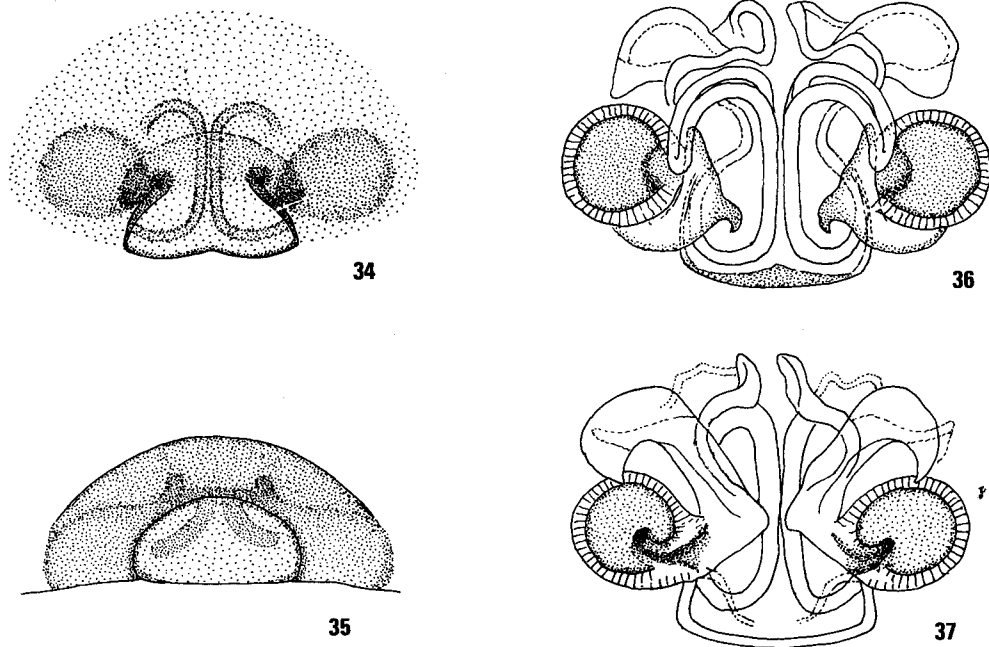
P. pumila var. *juncea* G. H. Locket and A. F. Millidge, 1953, p. 237.

♀. Diagnosed by the epigyne (Fig. 26); seen from behind (Fig. 32) the width of the central space is slightly variable. And by the vulva (Fig. 27) in which the small ducts are usually more heavily sclerotised than in *pumila*, and the spermathecae seem always to be somewhat elongated.

♂. Diagnosed by the form of the median apophysis (Fig. 28), which is rather longer than that of *neglecta*, but for the certain identity of *juncea* ♂ it is necessary to have the ♀ also.

Material. I have seen specimens from Britain (southern counties only: Cornwall, Dorset, Hampshire, I. of Wight, Sussex and Essex) and from southern France (Camargue area and eastern Pyrenees). Hence it may be inferred that the species inhabits the western and southern parts of Europe, but the limits of its distribution have yet to be determined.

P. juncea and *P. pumila* (females) have been taken together in Dorset (Merrett), but no intermediates



Figs. 34-37: *Pocadicnemis jacksoni* n.sp. 34 Epigyne (from below); 35 Epigyne (from behind); 36 Vulva (ventral); 37 Vulva (dorsal).

were present; a tube of *juncea* from Cornwall (Merrett) contained one ♂ which, from the form of the median apophysis, might be regarded as an intermediate between *juncea* and *pumila*. Both species have been taken separately in Cornwall, and it is probable that the two species will occur together in the southern counties of Britain.

The holotype female and a male paratype (from Wareham, Dorset: coll. P. Merrett) have been deposited in the BM (NH).

Pocadicnemis neglecta n.sp.

In general appearance, etc., this species is indistinguishable from *P. pumila* and the other species.

♀. Length 1.9 – 2.0 mm, carapace length ca. 0.85 mm. Tm I 0.86 – 0.90. Diagnosed by the epigyne (Figs 29, 33); seen slightly from behind, the epigyne resembles *juncea* seen from below. The vulva (Fig. 30) is probably not distinguishable with certainty from *pumila*.

♂. Length 1.7 – 1.8 mm, carapace length ca. 0.80 mm. Tm I 0.84 – 0.87. Diagnosed by the median

apophysis (Fig. 31) which is rather shorter than that of *juncea*, but for the certain identity of *neglecta* it is necessary to have the ♀ also.

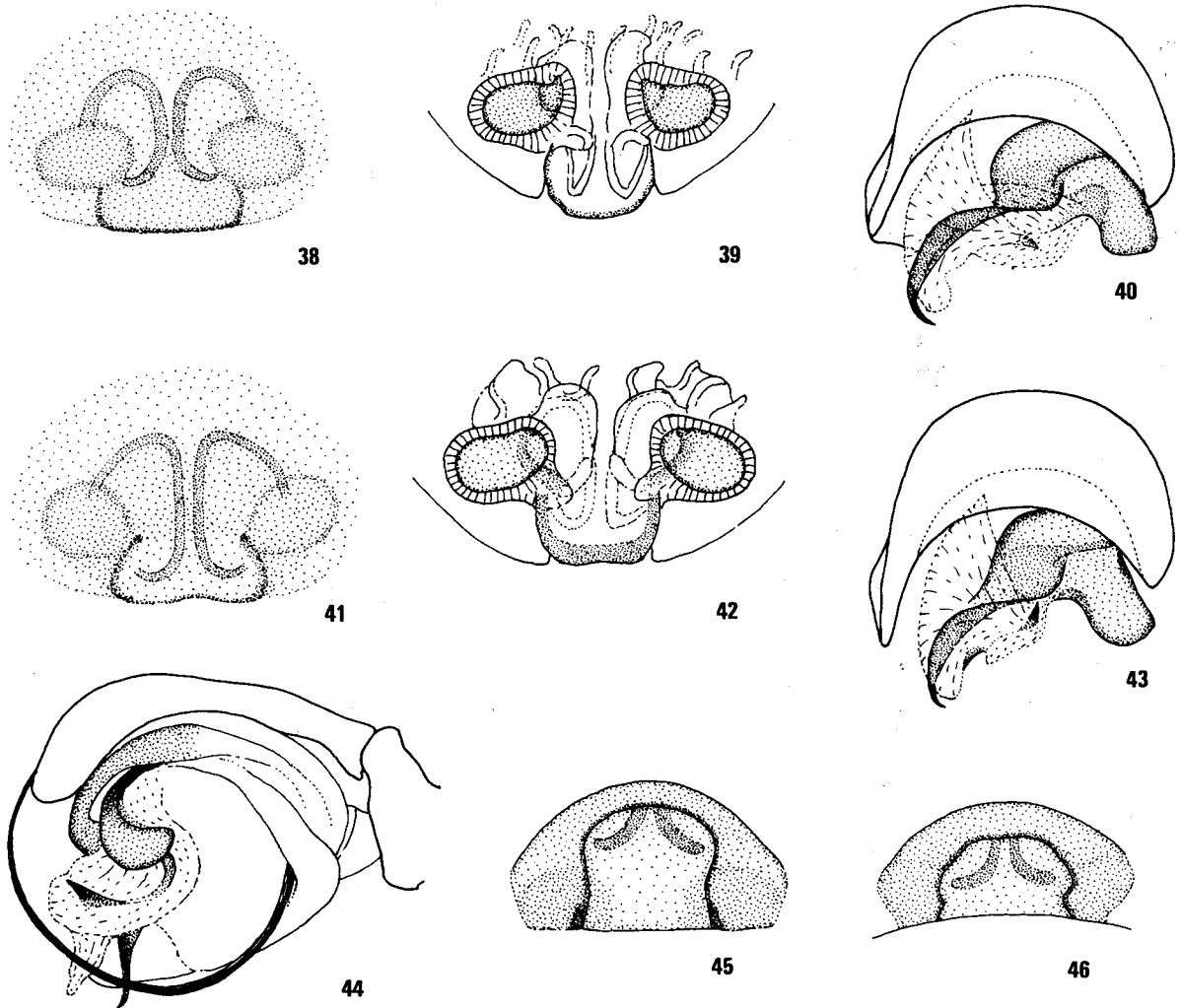
It is possible that *neglecta* should be regarded as a sub-species of *juncea*, but at present there is insufficient evidence to decide this.

Material. I have seen specimens of this species from Austria and Czechoslovakia. It seems probable that it is a common species in central Europe. The ♀ holotype and ♂ paratype from Austria (Lauser Kopf/Moor, pitfall traps 18 June – 27 July 1963; coll. K. Thaler) will be deposited at Naturhistorisches Museum, Basel.

Pocadicnemis jacksoni n.sp.

In general appearance, etc., this species is indistinguishable from *P. pumila* and the other species. Only the female is known.

♀. Length 2.2 – 2.3 mm, carapace length c.a. 0.90 mm. Tm I 0.85 – 0.88. The epigyne (Figs 34, 35) is recognisably different from that of *pumila* in fresh specimens, mainly due to the heavier pigmentation,



Figs. 38-46: *Pocadicnemis americana* n.sp. 38 Epigyne (from below); 39 Vulva (dorsal); 40 Right male palp from in front; 45 Epigyne (from behind).

P. occidentalis n.sp. 41 Epigyne (from below); 42 Vulva (dorsal); 43 Right male palp from in front; 44 Right male palp from inside and behind; 46 Epigyne (from behind).

but the differences are difficult to show in a figure. The species is diagnosed by the vulva (Figs 36, 37), which appears simpler and quite distinct from the other species; the spermathecae are almost circular and large.

Material. 7 ♀ from the ground layer of a wood above Corsavy (France, Pyrenees-Orientales) at ca 900 m, May 1975. The holotype female has been deposited at the MNHN, Paris.

Pocadicnemis americana n.sp.

This species agrees completely with *P. pumila* in size, colour and chaetotaxy.

♀. Diagnosed by the epigyne (Figs 38, 45). The epigynes of *americana/occidentalis* bear a similar relationship to one another as do *neglecta/pumila* in Europe. The vulva (Fig. 39) is so close to *pumila* and *occidentalis* that it is of little value for diagnosis.

♂. Diagnosed by the form of the median apophysis, which tends to be slightly longer than in *occidentalis*, coupled with the form of the membrane arising from the embolic division, which lacks the small upward-directed black point present in *occidentalis*.

Material. I have seen specimens from Ontario (Canada), Ramsey N.J., Ithaca N.Y., New York and Idaho (1 ♂ mixed with *occidentalis*). The holotype male and a female paratype (from Ontario; coll. W. Ivie) have been deposited in the American Museum of Natural History, N.Y.

Pocadicnemis occidentalis n.sp.

This species agrees completely with *P. pumila* in size, colour and chaetotaxy.

♀. Diagnosed by the epigyne (Figs 41, 46). The vulva (Fig. 42) differs slightly from that of *americana*, but is probably too close to be a reliable diagnostic character.

♂. Diagnosed by the form of the median apophysis (Fig. 43), which tends to be slightly shorter than in *americana*, coupled with the presence in the membrane arising from the embolic division of an upward-directed black point (Figs 43, 44), not present in *americana*.

This species is obviously very close to *americana*, and should possibly be regarded as a sub-species only. This matter could best be resolved by an examination of fresh specimens from a number of widely-spaced localities in N. America.

Material. 3 ♂ 4 ♀ from N.E. Fruitland, Idaho (coll. W. Ivie). The holotype male and a female paratype have been deposited in the American Museum of Natural History, N.Y.

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Parker (Blennerhasset); and Dr K. Thaler (Innsbruck).

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Note added in proof

I have recently received (Dr M. J. Roberts) a number of *Pocadicnemis* specimens which were taken together in one locality in Flintshire; these are 12 ♀ 3 ♂ *pumila* and 21 ♀ 12 ♂ *juncea*. *P. juncea* does therefore occur as far north in Britain as Blackwall's original locality. It still seems probable however that the *pumila* described here is Blackwall's *pumila*, since Jackson, who collected extensively over many years in the same general area, took only *pumila* there. I have also recently received *pumila* and *juncea* from Germany (Wiehle's specimens), while further specimens from Czechoslovakia (Miller) show that *pumila* is a common species there.

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***Pirata tenuitarsis* Simon (Araneae, Lycosidae): a widespread but long-ignored species**

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It often happens that similar species are confused, and when such confusion arises most findings are attributed to the better known of the two species. Experience has shown the authors that this occurs most frequently when dealing with groups belonging to clearly defined species and hence considered to be "easily" identifiable. In such cases slight morphological differences, even if clearly recognisable, are frequently interpreted as an expression of variation within the species, or are simply overlooked. The European species of the genus *Pirata* exemplify the above misapprehension, for this is clearly what has happened in the case of *Pirata tenuitarsis* Simon 1876, a species that is widespread in southern central Europe but which is generally confused with *P. piraticus* (Clerck) 1757.

In studies carried out on a large number of wolf spiders collected in the Iberian peninsula by Mr A. Senglet (Geneva) we noticed that various of our specimens of *Pirata*, which had previously been identified as *P. piraticus*, showed significant differences in the structure of the male genitalia; differences in the female genitalia were less obvious, and it was only after extremely careful examination, and then with a certain margin of doubt, that we were able to dis-

tinguish these females from those that belonged undeniably to *P. piraticus*.

A rapid check of material preserved in the collection of one of the authors revealed that a number of Italian specimens of the genus *Pirata* which had already been identified as *P. piraticus* exhibited the same morphological characteristics as those of the Iberian peninsula. Subsequent comparison of our specimens with the paratypes of *P. tenuitarsis* kept in the Muséum d'Histoire Naturelle in Paris showed beyond doubt that they belonged to this species. Furthermore, comparison of *P. tenuitarsis* with specimens of *P. moravicus* Kratochvil, kindly sent by Dr J. Buchar, showed the two species to be identical. Dr Buchar was sent samples of *P. tenuitarsis* collected in Spain and he too declared them identical with *moravicus* (Buchar, *in litt*, 6 August 1974).

Pirata tenuitarsis was described by Simon (1876) who stated that it was very common in the marshlands of Corsica. Carpenter (1894) also records the presence of this species in Corsica. Rizzardi and Cecconi (1898) reported its presence in Vallombrosa in the Tuscan Apennines. In 1937 Simon relegated *tenuitarsis* to a subspecies of *P. piraticus*, reporting it in Guadarrama, Spain. Recently, Buchar (1966), in recognition of the morphological differences between the sub-species *moravicus* (Kratochvil 1930) and the typical form, conferred species status on *moravicus*, without however recognising the fact that this is identical with *P. tenuitarsis*. It should be noted here that, according to Article 50b of the International Code, "change in rank . . . does not affect the authorship of the nominal taxon". Therefore, Buchar's *moravicus* has to be quoted as *P. moravicus* Kratochvil and not, as Buchar did, as a new species.