

Nomenclatural notes on, and redescrptions of some little-known species of the *Philodromus aureolus* group (Araneae: Philodromidae)

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Summary

In the present contribution, some little-known species of the *Philodromus aureolus* group are revised. The following species are re-established and redescrbed: *P. longipalpis* Simon, 1870 (new synonym: *P. pallens* Kulczyński, 1891); *P. lividus* Simon, 1875; and *P. fuscolimbatus* Lucas, 1846 (new synonym: *P. constellatus* Simon, 1875). *P. aureolus similis* Kulczyński, 1891 is considered a junior synonym of *P. cespitum* (Walckenaer, 1802).

A checklist of the west palaeartic representatives of the *P. aureolus* group is added.

Introduction

During the study of numerous specimens of spiders belonging to the *Philodromus aureolus* group, several taxonomic and nomenclatural problems were encountered which were inadequately resolved in Braun's (1965) revision of the palaeartic representatives of the group. In this contribution an attempt is made to redescrbe and diagnose some of the insufficiently known species, and to solve some of the associated nomenclatural problems.

One of these problems consists of the frequent use of trinomina (and even quadrimina) in philodromid nomenclature, first by Chyzer & Kulczyński (1891) and especially by Braun (1965). This is a consequence of the subtlety of the morphological differences between related taxa, rather than being justified on biological grounds.

Results of breeding experiments between Canadian and German populations of presumed *P. cespitum* (*P. maculatus* Blackwall, 1846 and *P. cespitum* (Walckenaer, 1802), respectively) (Braun & Martens, 1972; R. Braun, pers. comm.) indicate that even small morphological differences are relevant in separating two taxa of specific rank in this group, equal to what was found in the related *P. rufus* group (Dondale, 1972; Segers, 1989). The present author therefore believes that in the absence of clear evidence of subspecificity or infraspecificity (interfertility and/or differences in geographical distribution, see Dondale & Redner, 1968) between two morphological forms, taxonomic stability is best served by considering them to be either separate species or synonyms.

The repositories of the material examined are abbreviated as follows: MNHN = Muséum National d'Histoire Naturelle, Paris, France; HNHM = Hungarian Natural History Museum, Budapest, Hungary; KBIN = Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels, Belgium; MRAC = Koninklijk Museum voor Midden-Afrika, Tervuren, Belgium; AC = author's collection.

All measurements are in mm.

Results

Of the representatives of the *Philodromus aureolus* group described by Simon (1870: *Philodromus politus*, *P. longipalpis*; 1875: *P. constellatus*, *P. lividus*) or by Lucas (1846: *P. fuscolimbatus*), which were deposited in the "Muséum National d'Histoire Naturelle" (Paris), Braun (1965) was loaned tubes containing one specimen of one or both sexes. During my visit to the Museum, these tubes were found to contain many more specimens than mentioned by Braun (1965). I assume that the specimens sent to Braun were extracted from tubes containing several specimens, and after examination by Braun (1965) were replaced in the original tubes by a former curator of the Museum.

In some cases, Braun (1965) assumed that he was studying holotypes (*P. longipalpis*: p. 395, *P. politus*: p. 397), although Simon (1870, 1875) did not specify the number of specimens examined. According to rule 74(b) of the International Code of Zoological Nomenclature (ICZN), this is to be treated as if lectotypes have been designated.

As the female lectotype of *P. politus* belongs to *P. aureolus* (Clerck, 1757), the former becomes a junior synonym of the latter (Braun, 1965: 376). The designation of a second lectotype of this species by Braun (1965: 398) and therefore also the comments, based on this specimen, are invalid (see ICZN rule 74(a) (i)).

The fact that many more specimens than mentioned by Braun (1965) are stored in the relevant tubes, also has implications in those cases in which Braun (1965) designated one of the specimens he was studying as lectotype (*P. constellatus*: p. 399, and *P. lividus*: p. 393). These lectotypes could not be recognised among the other conspecific specimens, but "... the fact that the specimen(s) cannot be traced does not itself invalidate the designation" (ICZN rule 74(c)).

Braun (1965) provided excellent drawings of the lectotypes of *P. longipalpis*, *P. constellatus* and *P. lividus*. My conclusions on these species are based on the descriptions and figures by Braun (1965).

The designation of a lectotype of *P. fuscolimbatus* by Braun (1965) and therefore also his comments on this species are invalid as his "lectotype" apparently was not a syntype (see rule 74(a) (v) of the ICZN).

In the course of my study, of which some results are presented in the present paper, it appeared that a previous synonymisation (Segers, 1990) of *P. politus* and *P. fuscolimbatus*, based on the study of the lectotype of *P. politus* and Braun's drawing of *P. fuscolimbatus*, is erroneous.

Redescrptions

Philodromus longipalpis Simon, 1870 (Figs. 1–6)

P. longipalpis Simon, 1870: 336 (Descr.); Simon, 1932: 852.

P. aureolus longipalpis: Simon, 1932: 884.

P. cespitum longipalpis: Braun, 1965: 395.

P. aureolus pallens Kulczyński, in Chyzer & Kulczyński, 1891: 110 (Descr.). NEW SYNONYMY.

P. aureolus pallens: Simon, 1932: 852.

P. cespitum pallens: Braun, 1965: 389 (part., male).

Type material

Male lectotype (designation by Braun, 1965), 1♂ paralectotype, France, "Pyr." (MNHN: B[ocal] 1555, T[ube] 11983).

Diagnosis

P. longipalpis is diagnosed in the male by the relatively long, smoothly curved embolus and the broad tegulum (Figs. 1–3) which distinguish it from all related species except *P. aureolus* and *P. buddenbrocki* Braun, 1965. It is further diagnosed by the peculiar tibial apophyses, especially the retrolateral apophysis which is broad in lateral view and broad and cup-shaped in ventral view, and by the well-developed intermediate tibial apophysis which is unlike that of *P. aureolus* and *P. buddenbrocki*. Females can be distinguished from those of *P. cespitum* (Walckenaer, 1802) and *P. constellatus* (see below) by the dimensions of the median plate and atrium of the epigyne which are larger than in the two other species mentioned. The pale colour of the species distinguishes it from all related species except *P. lividus*. The validity of the diagnostic character given by Simon (1870), i.e. the relatively great total length of the male palp, cannot be confirmed.

Dimensions

Male (ranges based on four specimens): Total length 2.80–5.48, carapace length 2.04–2.46, carapace width 2.00–2.40. Femur I length 3.12–3.76. Cymbium length 1.10–1.24, cymbium width 0.62–0.72. **Female** (ranges based on ten specimens): Total length 5.46–6.56, carapace width 2.28–2.40, carapace length 2.34–2.46, femur I length 2.77–3.14. Epigynum: median plate width 0.30–0.35, atrium width 0.23–0.33.

Description

Colour (based on recently collected material): Overall colour of cephalothorax yellow-orange to pale brown in male, and very pale brown, sometimes speckled with minute dark brown spots, in female. White striae in cephalic region present or absent in both sexes. Eyes surrounded by narrow white rings. Legs and chelicerae uniformly light brown, sternum yellowish. Dorsal surface of male abdomen pale brown, with a distinctly darker mediodorsal sagittal mark surrounded by white spots. Lateral parts of abdomen sometimes darker. Venter of abdomen pale brown to yellowish. Female abdomen usually pale brown.

Male palp (Figs. 1–3): Embolus relatively long, smoothly curved, arising subdistally on prolateral side of tegulum, which is only a little longer than wide. Ventral edge of retrolateral tibial apophysis distinctly longer than dorsal edge, both edges parallel in retrolateral view. In ventral view, the apophysis seems slightly cup-shaped. The "broken" aspect of this apophysis is not a constant character. Ventral apophysis more or less quadrangular, intermediate apophysis relatively large.

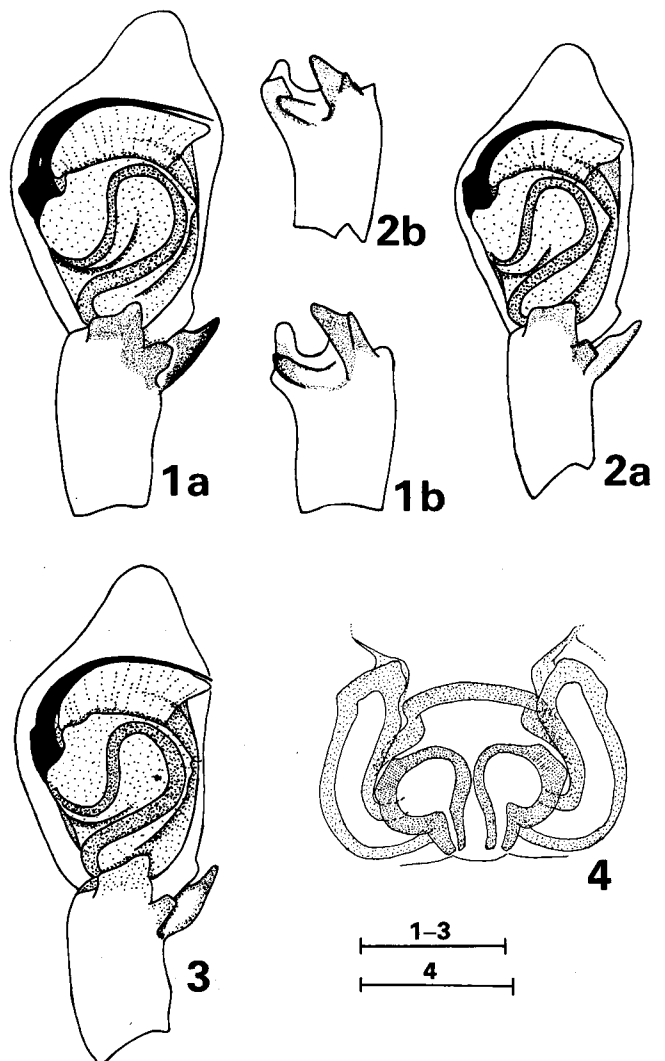
Epigyne (Figs. 5, 6): Large. Median plate vase-shaped, atrium relatively broad. Median plate and atrium always

clearly separated by a sclerotised arch. Spermathecae and copulatory ducts visible through integument. **Vulva** (Fig. 4): Spermathecae round, set close together. Copulatory ducts relatively straight anteriorly, curled around the spermathecae to connect posteriorly.

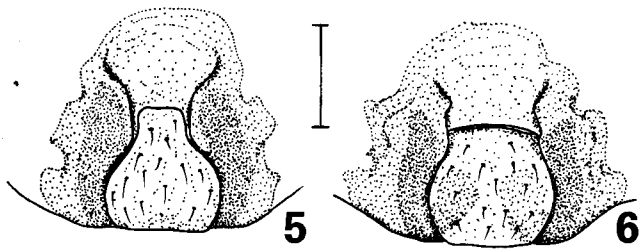
Discussion

The species was originally described on specimens of both sexes from the Spanish Pyrenees (Simon, 1870). Later, he considered it a "forme espagnole de *P. aureolus*" (Simon, 1932: 852), and finally in the same work (p. 884) as a "race locale ou variété principale", in the trinomen *P. aureolus longipalpis*. Braun (1965) reported it to be a subspecies of *P. cespitum*. As no objective criteria could be found to justify subspecific status, *P. longipalpis* is re-established as a valid species.

The study of the syntypes of *P. aureolus pallens* Kulczyński, consisting of one male, two females (with detached epigynes, one of these presumably lost), one juvenile and one misidentified specimen, revealed that *pallens* is a junior synonym of *longipalpis*.



Figs. 1–4: *Philodromus longipalpis* Simon, 1870. **1** Male palp, (? para) lectotype; **2** Ditto (syntype of *P. pallens*); **3** Ditto (specimen from Crete); **a** = ventral view of palp, **b** = retrolateral view of palpal tibia. **4** Vulva (specimen from Turkey). Scale lines = 0.5 mm (1–3), 0.25 mm (4).



Figs. 5–6: *Philodromus longipalpis* Simon, 1870. Epigynes. **5** Misidentified paralectotype of *P. lividus*; **6** Syntype of *P. pallens*. Scale line = 0.25 mm.

Distribution

P. longipalpis has been found in material collected in France, Spain, Crete, Turkey and Hungary.

Other type material examined

HUNGARY: 1♂, 2♀, 1 juv., “Bazias”, (Lindauer), coll. Chyzer 1187: syntypes of *P. aureolus pallens* Kulczyński, 1891 (HNHM). FRANCE: 10♀: misidentified as paralectotypes of *P. lividus* (B. 1559, T. 659 MNHN).

Additional material examined

FRANCE: 1♀, “Gallia”: sub. *P. constellatus*, misidentification (B. 1556, T. ? MNHN). TURKEY: 3♀, Alanya, June 1968, leg. G. Fagel (KBIN); 1♀, Feke, 9 August 1988, leg. J. Mertens (AC); 1♀, Gunluce, 4 August 1988, leg. J. Mertens (AC). GREECE: 1♂, Crete, leg. Malicki (Coll. J. Wunderlich).

Philodromus lividus Simon, 1875 (Figs. 7–11)

P. lividus Simon, 1875: 305 (Descr.); Simon, 1932: 852.

P. aureolus lividus: Simon, 1932: 884.

P. cespitum lividus: Braun, 1965: 393 (part., male).

Type material

Lectotype (designation by Braun, 1965) and paralectotypes: 4♂, 6♀; further misidentified paralectotypes: 10♀ *P. longipalpis*, 2♀ *P. aureolus* (Clerck, 1757), 1♀ *P. praedatus* O. P.-Cambridge, 1870, 1 unidentifiable female specimen with a deformed epigyne, “Gallia” (MNHN, B. 1559, T. 659).

Diagnosis

Males of *P. lividus* are easily distinguished from those of related species by the short embolus, the relatively narrow tegulum and the disposition of the tibial apophyses (Fig. 7). Females are diagnosed by the very deep and narrow atrium, the small median plate (Figs. 8, 9) and by the vulva (Figs. 10, 11). Specimens of *P. lividus* can easily be recognised by the above characters, and can hardly be confused with any of the currently known congeneric species.

Dimensions

Male (ranges for six specimens): Total length 4.19–5.04, carapace length 1.97–2.16, carapace width 1.85–2.09, femur I length 2.80–3.24. Cymbium length 0.95–1.02,

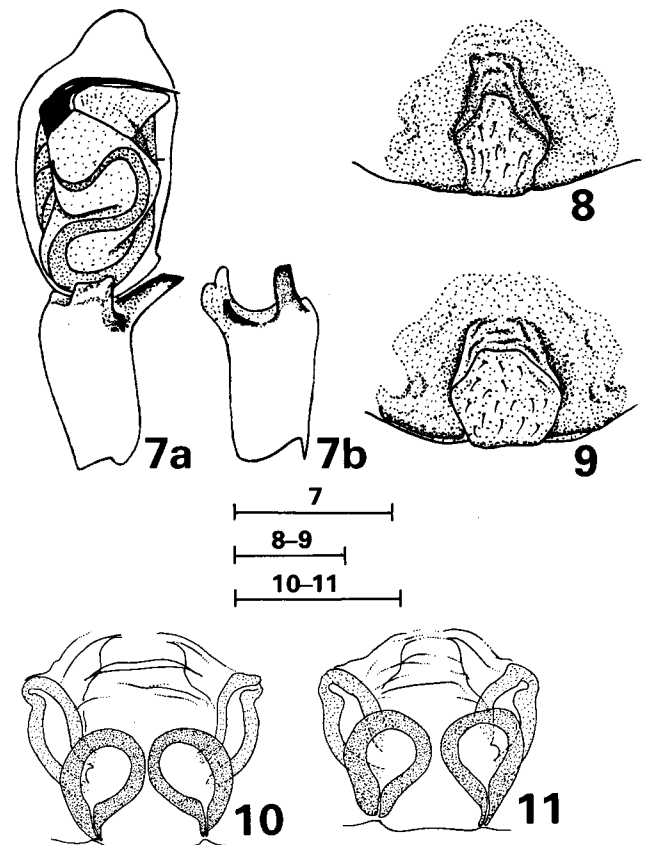
cymbium width 0.48–0.53. **Female** (ranges for eight specimens): Total length 4.39–6.90, carapace width 2.03–2.37, carapace length 2.16–2.46, femur I length 2.25–2.59. Epigynum: median plate width 0.25–0.30, length 0.20–0.26, atrium width 0.09–0.14.

Description

Colour (based on recently collected material, males only slightly darker than females): Cephalothorax pale brown, somewhat darker laterally. White striae in cephalic region present or absent. Eyes surrounded by narrow white rings. Legs and chelicerae uniformly light brown, sternum pale yellow-brown. Abdomen basically light brown, sometimes with white dots on dorsal surface forming an abdominal pattern. Venter of abdomen pale brown, speckled with white.

Male palp (Fig. 7): Embolus rather short, arising distally on prolateral side of tegulum; rather straight distally. Tegulum relatively narrow, with straight distal margin. Length of prolateral margin of tegulum approximately two-thirds length of retrolateral margin. Retrolateral tibial apophysis straight, flat, and about two to three times as long as wide. Ventral apophysis more or less quadrangular. Intermediate apophysis small and triangular in ventral view.

Epigyne (Figs. 8, 9): Median plate small, with an especially deep, narrow atrium. Copulatory ducts and



Figs. 7–11: *Philodromus lividus* Simon, 1875. **7** Male palp, (? para) lectotype; **a** = ventral view, **b** = retrolateral view of palpal tibia. **8** Epigyne (specimen from Portugal); **9** Ditto (specimen from Algeria); **10**, **11** Vulva (specimens from Algeria). Scale lines = 0.5 mm (7), 0.25 mm (8–11).

spermathecae not visible through integument. *Vulva* (Figs. 10, 11): Large, drop-shaped spermathecae, which connect medially with short, curved copulatory ducts.

Discussion

P. lividus was originally described as a distinct species (Simon, 1875) occurring in France (Hautes-Alpes: Savines, Provence: Mont Léberon), Corsica, and Spain (Sierra Estella). Since Simon (1932), this form has been considered to be a subspecies of *P. aureolus*, or later (Braun, 1965), of *P. cespitum*. As there are no objective criteria for this subspecificity, this status is rejected and *P. lividus* is hereby re-established as a valid species.

Braun (1965) designated and illustrated (fig. 60a, b, p. 393) one male specimen as lectotype of the species (MNHN, B. 1559, T. 659, containing according to Braun (1965) one male (lectotype) and one female specimen). I assume that the tube, labelled *P. lividus*, "Gallia" (MNHN, T. 659, B. 1559) contains the lectotype and paralectotypes of the species. In this tube, representatives of four different species were found. The present description is based on the drawings of the lectotype by Braun (1965), on the conspecific paralectotypes and on some recently collected material.

Distribution

During my studies on Philodromidae, several specimens of *P. lividus* were found in collections from France, Portugal, Algeria and Morocco. *P. lividus* therefore seems to be a West Mediterranean species.

Additional material examined

PORTUGAL: 1♂, 2♀, Serra de Monchique, May 1960, leg. G. Fagel (KBIN); 1♂, Caldas de Monchique, May 1960, leg. G. Fagel (KBIN). FRANCE: 1♂, La Ciotat, 17 June 1976, leg. & det. R. De Blauwe (misidentified as *P. aureolus*, KBIN); 1♀, Esterel (Côte d'Azur), 26 May 1988, leg. H. Vanuytven (AC). MOROCCO: 1♀, Asni, alt. 1200–1300 m, 3–11 June 1934, leg. A. Ball, det. Giltay (misidentified as *P. aureolus*, KBIN). ALGERIA: 1♂, Collo-Tamanart, leg. R. Bosmans (AC); 1♀, Tamanart, 6 June 1987, leg. R. Bosmans (AC).

Philodromus fuscolimbatus Lucas, 1846 (Figs. 12–15, 17–18, 21–22)

P. fuscolimbatus Lucas, 1846: 197 (Descr.).

P. fuscolimbatus: Simon, 1932: 852.

P. aureolus fuscolimbatus: Simon, 1932: 884.

P. cespitum fuscolimbatus: Braun, 1965: 394.

P. constellatus Simon, 1875: 298 (Descr.); Simon, 1932: 852. NEW SYNONYMY.

P. aureolus constellatus: Simon, 1932: 884.

P. buxi buxi var. *politus*: Braun, 1965: 397 (part., male).

P. buxi buxi var. *constellatus*: Braun, 1965: 397–399 (part., male).

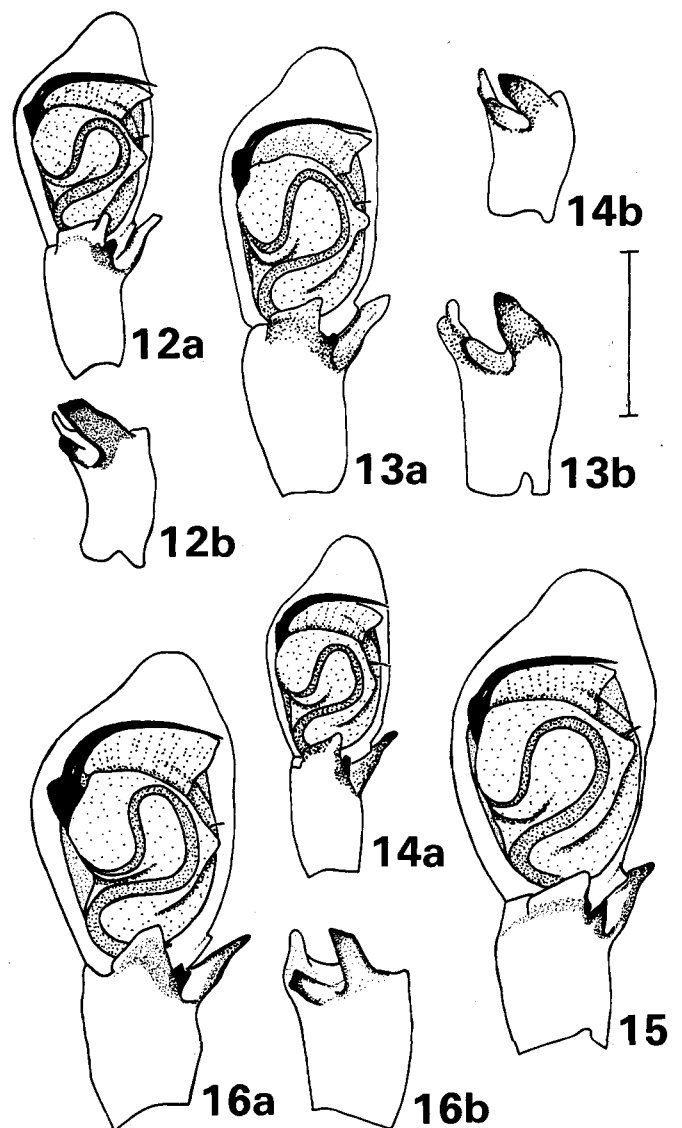
Type material

NEOTYPE (by present designation): 1♂, Meurdja, Algeria, 30 May 1987, leg. R. Bosmans, deposited in MRAC (reg. no. MRAC 171757).

Diagnosis

Males of *P. fuscolimbatus* can be distinguished from those of the closely related *P. cespitum* by the presence of

a broad retrolateral tibial apophysis (relatively slender in *P. cespitum*: compare Figs. 12–15 versus 16), by a more or less triangular intermediate apophysis (bifid in *P. cespitum*: Fig. 16) and by a subquadrangular ventral apophysis (more or less triangular in *P. cespitum*). In most cases, a pointed tegular process and a well-developed "intertegular retinaculum" (*sensu* Braun, 1965) are present. In *P. buxi* the tegular process is more strongly developed, and the embolus more smoothly arched than in *P. fuscolimbatus*. Females can be distinguished from those of *P. longipalpis* by their smaller epigyne and by their overall darker colour. The epigyne of *P. fuscolimbatus* (Figs. 17, 18) has an atrium which is at least as wide as the median plate, whereas in *P. cespitum* (Figs. 19, 20) the atrium is normally narrower than the median plate. The copulatory ducts of *P. fuscolimbatus* (Figs. 21, 22) are S-shaped



Figs. 12–15: *Philodromus fuscolimbatus* Lucas, 1846. Male palps. 12, 14 Specimens from Algeria (12 NEOTYPE); 13 Specimens from Morocco; 15 Specimen from Crete; a = ventral view of palp, b = retrolateral view of palpal tibia.

Fig. 16: *Philodromus cespitum* (Walckenaer, 1802). Male palp (syntype of *P. aureolus similis* Kulczyński, 1891); a = ventral view of palp, b = retrolateral view of palpal tibia.

Scale line = 0.5 mm.

(more or less C-shaped in *P. cespitum*: Fig. 23). However, it is possible that unidentifiable female specimens of *P. fuscolimbatus*/*P. cespitum* will turn up.

Dimensions

Male (ranges based on six specimens, measurements on neotype in brackets): Total length 3.14–5.55 (3.64), carapace length 1.57–2.53 (1.56), carapace width 1.54–2.46 (1.64), femur I length 1.60–3.14 (2.00). Cymbium length 0.71–1.09 (0.80), cymbium width 0.42–0.62 (0.46). **Female** (ranges based on eight specimens): Total length 3.29–5.35, carapace length 1.73–2.08, carapace width 1.60–2.00, femur I length 1.73–2.40. Epigynum: median plate width 0.15–0.23, atrium width 0.17–0.23.

Description

Colour (based on recently collected material): Cephalothorax yellow-brown, darker laterally. White striae in cephalic region present or absent. Eyes surrounded by narrow white rings. Legs and chelicerae uniformly brown. Sternum pale brown. Mediodorsal sagittal mark present, folium and lateral areas of abdomen brown. Ground colour of abdomen (dorsal and ventral) pale brown to white, ventrally with two nearly white, longitudinal marks.

Male palp (Figs. 12–15, neotype Fig. 12): Embolus relatively short, arising subdistally on prolateral side of tegulum; mostly rather straight distally. A pointed process approximately midway on retrolateral margin of tegulum present in most specimens; "intertegular retinaculum" (*sensu* Braun, 1965) mostly visible in ventral view, situated distally of tegular process. One or both of these can exceptionally be absent. Retrolateral tibial apophysis flat, approximately twice as long as wide, its shape very variable. Ventral apophysis subquadrangular, intermediate apophysis more or less triangular in ventral view. Of all related species, *P. fuscolimbatus* exhibits the greatest variability in both size and shape of the palpal organs.

Epigyne (Figs. 17, 18): A distinct median plate and a relatively wide atrium, separated by a sclerotised arch. Copulatory ducts visible through integument. **Vulva** (Figs. 21, 22): Two clearly S-shaped copulatory ducts leading to bean-shaped or round spermathecae. Spermathecae separated from each other by about their diameter.

Discussion

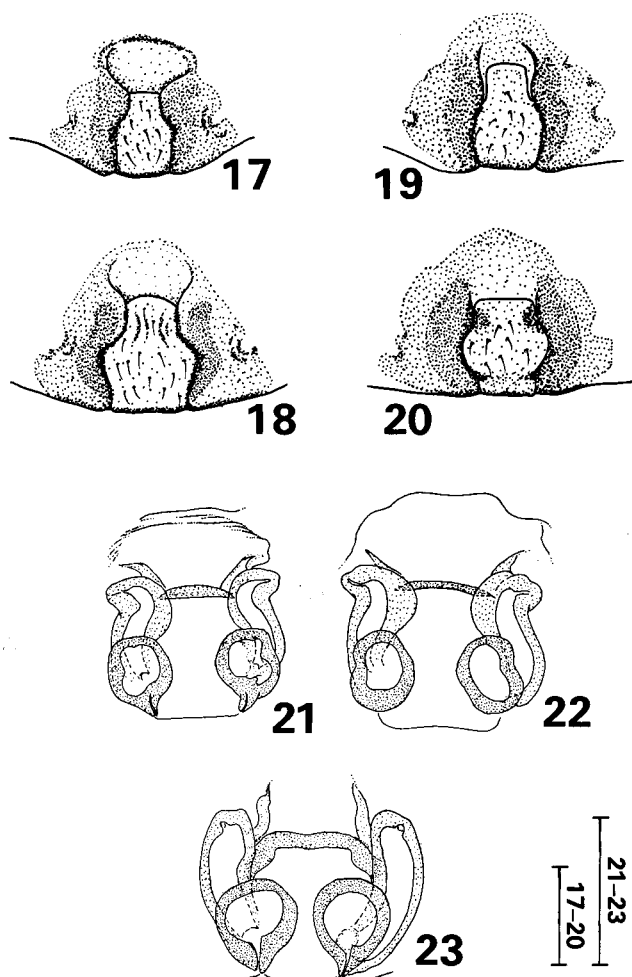
The type specimens of *P. fuscolimbatus* could not be traced, although most of the types or specimens of other taxa, described or mentioned in the same paper in which the original description of *P. fuscolimbatus* was published (Lucas, 1846), were found in the MNHN.

Simon, who may have seen the specimens, gives the following comments: "Espèce très voisine de *P. glaucinus* Simon, 1870" (Simon, 1875). Later, and surprisingly in the same work (Simon, 1932), he successively gives *P. fuscolimbatus* specific (p. 852) and subspecific status (*P. aureolus fuscolimbatus*, p. 884). Material identified as

P. fuscolimbatus by Simon and deposited in the MNHN (T. 652, B. 1559) reveals the presence of not less than 4 species, testifying to the difficulty Simon had in distinguishing *Philodromus* species.

The conclusion of Braun (1965) was based on the study of two specimens, presumably extracted from the tube just mentioned. As the locality of these specimens ("Gall. Hisp.") is unlike the type locality of the species ("Environs d'Alger"), they cannot be considered syntypes of the species. The designation of one of these as a lectotype is therefore invalid.

Considering these facts, and the inadequate description of Lucas (1846), I believe that only the designation of a neotype can solve the identity problem of this species. In Algeria, only one species of the *P. aureolus* group is found commonly. As the original description of *P. fuscolimbatus* can apply to it, it is likely that Lucas collected and described specimens of this particular species. One male specimen of the species, collected at Meurdja (a locality close to Alger), is hereby designated neotype of *P. fuscolimbatus*.



Figs. 17–18, 21–22: *Philodromus fuscolimbatus* Lucas, 1846. **17** Epigyne (specimen from Spain); **18** Ditto (specimen from Algeria); **21, 22** Vulva (specimens from Algeria).

Figs. 19–20, 23: *Philodromus cespitum* (Walckenaer, 1802). **19, 20** Epigyne (syntypes of *P. aureolus similis*); **23** Vulva (specimen from Belgium).

Scale lines = 0.25 mm.

Judging by the relevant drawings and their description, I regard the lectotype of *P. constellatus* by Braun (1965, fig. 65a, 65b, p. 398) and the invalid male lectotype of *P. politus* as conspecific with *P. fuscilimbatus*, and *constellatus* should therefore be treated as a junior synonym of *P. fuscilimbatus*. The identity of the female lectotype of *P. politus* reveals a synonymy of this name with *P. aureolus*.

Distribution

P. fuscilimbatus is found in Spain, France, Morocco, Algeria and Crete.

As the distribution of *P. fuscilimbatus* and *P. cespitum* as known to me seem to be different, and as the morphological differences between these two taxa are subtle, it is possible that *P. fuscilimbatus* will turn out to be a subspecies of *P. cespitum*. However, there are at present insufficient data available to decide on this matter.

Other type material examined

sub. *P. constellatus*: Lectotype and paralectotypes: 10♂, 2♀; further misidentified paralectotypes: 2♂ *P. buxi*, 2♂ *P. praedatus*, 17♂, 24♀ *P. aureolus*, "Gallia" (MNHN, B. 1559, T. 646).

sub. *P. politus*: 2♂, 7♀ misidentified males and paralectotypes of *P. fuscilimbatus*; 1♀ lectotype *P. aureolus*. "Gall. Hisp." (MNHN, B. 1555, T. 649).

Additional material examined

Note: I erroneously labelled some specimens of *P. fuscilimbatus* in the MNHN and the KBIN as *P. politus*.

FRANCE: sub. *P. constellatus* (misidentifications): 6♀ *P. aureolus*, 1♀ *P. collinus* (C. L. Koch, 1835), 26♂, 24♀ *P. cespitum*, 2 subad., "Bournet, 15 July 1913" (MNHN, B. 1555, T. 275); idem: 7♂, 2♀ *P. cespitum* (MNHN, B. 1556, T. 25165); idem: 1♀ *P. longipalpis* (MNHN, B. 1556, T. ?); idem: 1♂ *P. cespitum* (MNHN, B. 1556, T. ?). 1♀, Esterel, Col de l'Ériques (Var), 17 July 1938, leg. G. F. De Witte (KBIN); 2♂, Pyr. Orient. Banyuls, 8 June 1982, leg. & det. Bosmans & Decler (misidentified as *P. aureolus*, KBIN); 1♀, Pyr. Orient. Collioure, 7 June 1963, leg. Decelle (KBIN); 1♂, St-Etienne de Tiinée/Cioson Bercia (Alpes Maritimes), 25 July 1938, leg. G. F. De Witte (KBIN). SPAIN: sub. *P. fuscilimbatus*: 3♀; misidentifications: 7♂, 3♀ *P. cespitum*, 1♀ *P. aureolus*, 13♀ *P. spec.*, "Gall. Hisp." (MNHN, B. 1559, T. 652). 1♀, Andalusia (Anjaron), Granada, 600–1400 m, 27 April–19 May 1989 (KBIN); 2♀, Huesca Bielsa, 1100 m, 4 September 1984, leg. & det. R. Bosmans (misidentified as *P. cespitum*, KBIN). MOROCCO: 1♀, "Vallée de l'Aït Mizane (1500–1700 m)", 8 June 1934, leg. A. Ball (KBIN, IG. 10417); 1♂, Rabat, 17 May 1934, leg. A. Ball, det. Giltay (KBIN, IG. 10417) (misidentified as *P. buxi*); 1♂, Asni, alt. 1200–1300 m, 3–11 June 1934, leg. A. Ball, det. Giltay (KBIN, misidentified as *P. buxi*); 2♂, Ifrane, 20 May 1980, leg. J. Mertens (AC); 5♂, 2♀, "Maroc", leg. & det. R. Jocqué (misidentified as *P. aureolus*) (MRAC 154287–9). ALGERIA: 1♂, 1♀, Mont Babor, 29 June 1988; 3♂, 2♀, Meurdja, 30 May 1987; 3♂, 1♀, Damous, leg. R. Bosmans (AC). GREECE: 1♂, Crete, "Naddb." (Coll. J. Wunderlich).

Finally, I was also able to study some specimens of *P. aureolus similis* Kulczyński, 1891. The result of this study is as follows:

Philodromus cespitum (Walckenaer, 1802) (Figs. 16, 19, 20, 23)

Aranea cespitum Walckenaer, 1802: 230.

Philodromus aureolus similis Kulczyński, 1891: 109 (Descr.). NEW SYNONYMY.

Type material

P. aureolus similis "Tokaj, 30 V", 6♀; "Tiszalok, coll. Chyzer 1187", 1♂, 1♀; "Czigand, coll. Chyzer 1187", 2 juv. (HNHM).

Discussion

Originally described explicitly as a subspecies of *P. aureolus*, this taxon was considered to be very close to *P. cespitum* ("Ad formam *Ph. similis* a *Ph. caespiticola* non differe veditur": Chyzer & Kulczyński, 1891). Braun (1965) also considered the form to be closely related to *P. cespitum* and expressed his doubts about the subspecific status of the form, without rejecting it.

Since the localities on the labels of the material examined correspond with those in the original description of the subspecies by Chyzer & Kulczyński (1891), and because they are in the Chyzer collection, I consider the specimens to be syntypes. Based on the study of these syntypes, *P. aureolus similis* is believed to be a junior synonym of *P. cespitum*. A brief description of the specimens is as follows.

Description

Colours strongly faded in alcohol. Main colour yellow-orange, white striae present in cephalic region of cephalothorax, chelicerae more orange. Dorsal surface of abdomen with a whitish mediosagittal mark, ventral abdominal surface whitish. Male palp: Fig. 16. Epigyne: Figs. 19, 20.

Checklist of *P. aureolus* group in west palaeartic

As a conclusion to this contribution a preliminary review of the west palaeartic representatives of the *P. aureolus* group is presented. As a starting point to this list, the catalogue of Roewer (1955) and the work of Braun (1965) are used. In order to facilitate identification, references to at least one publication in which the species concerned is diagnosed and figured are provided. In the west palaeartic region, the following species have been reported:

Philodromus aureolus (Clerck, 1757): type species

Diagnosis: see Braun (1965), Roberts (1985) (male!), Segers (1990).

Synonyms: *Aranea quadrilineata* Panzer, 1804; Roewer, 1955.

P. affinis Wider, 1834; Roewer, 1955.

P. politus Simon, 1870; Braun, 1965; present publication.

P. aureolus verus Kulczyński, 1875; Braun, 1965.

P. aureolus variegatus Kulczyński, 1891; Braun, 1965.

P. aureolus tauricus Charitonow, 1937; Braun, 1965.

P. buddenbrocki Braun, 1965

Diagnosis: Braun, 1965.

Comments: This taxon is possibly a synonym of *P. aureolus marmoratus* Kulczyński, 1891 (compare figs. 79–80 in Braun (1965) with figs. 21a–21b (plate IV) in Chyzer & Kulczyński, 1891). The identity of the syntypes of the latter taxon, studied by Braun (juveniles) and by me (a misidentified *P. margaritatus* specimen), do not permit a conclusion to be drawn on this matter.

P. buxi Simon, 1884

Diagnosis: see Braun (1965), Locket, Millidge & Merrett (1974), Roberts (1985).

Synonyms: *Artanes albomaculatus* Bösenberg, 1899; Braun, 1965.
P. armoricus Denis, 1938: Braun, 1965; synonymy confirmed through study of the type.

P. cespitum (Walckenaer, 1802)

Diagnosis: see Braun (1965), Roberts (1985).

Unjustified emendations: *P. cespiticolis*: Walckenaer, 1837; *P. cespiticolens*: O. P.-Cambridge, 1881; *P. caespiticola*: Chyzer & Kulczyński, 1891; *P. caespiticolis*: Bösenberg, 1902; *P. caespitum*: Palmgren, 1983.

Synonyms: *P. aureolus similis* Kulczyński, 1891: present publication.
P. reussii Bösenberg, 1902: Braun, 1965.
P. boesbergi Mello-Leitão, 1929 (nom. nov. for *P. albicans* Bösenberg, 1902): Braun, 1982.

P. collinus C. L. Koch, 1835

Diagnosis: Braun (1965), Locket, Millidge & Merrett (1974), Roberts (1985).

Synonym(?): *P. variatus* Blackwall, 1837: Roewer, 1955.

P. fuscolimbatus Lucas, 1848: See present publication.*P. lividus* Simon, 1875: See present publication.*P. longipalpis* Simon, 1870: See present publication.*P. praedatus* O. P.-Cambridge, 1870

Diagnosis: see Locket, Millidge & Merrett (1974), Snazell (1975), Segers (1990).

P. vagulus Simon, 1875

Diagnosis: Braun, 1965.

Synonym: *P. alpestris* L. Koch, 1876: Braun, 1965.

Insufficiently known taxa:

P. auronitens Ausserer, 1867; *P. inauratus* Dahl, 1924; *P. marmoratus* Kulczyński, 1891; *P. micans* Menge, 1875; *P. mistus* Blackwall, 1837; *P. variatus* Blackwall, 1837; *P. vegetus* L. Koch, 1881: see Braun (1965).

P. depriesteri Braun, 1965: subadult or teratological specimens of *P. collinus*?

P. collinus isticus Braun, 1965.

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