Bull. Br arachnol. Soc. (1994) 9, (9), 318–320

Porrhomma cambridgei, replacement name for *Porrhomma oblongum* (O. P.-Cambridge, 1871), revalidated and redescribed from southern England (Araneae: Linyphiidae)

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Summary

Porrhomma oblongum (O. P.-Cambridge, 1871) is removed from synonymy with *P. oblitum* (O. P.-Cambridge, 1871) and revalidated as a separate species. As it was originally described as *Linyphia oblonga* O. P.-Cambridge, 1871, which is a primary homonym of the fossil *Linyphia oblonga* Koch & Berendt, 1854, it is given the new name *Porrhomma cambridgei*. The female is redescribed from material collected recently in southern England. The male has not been adequately described.

Introduction

Two females of a *Porrhomma* species close to *P. oblitum* (O. P.-Cambridge, 1871), but with much smaller eyes, were received from Dr C. J. Topping, collected in traps in fields on chalk in Sussex in 1990. At first these were thought to be possibly a new species, but a decision was deferred in the hope that a male might be found. In April 1993 a further female of the same species was received from Mr J. E. D. Milner, collected in a pitfall trap in a newly coppiced wood in Middlesex. This specimen was in much better condition than the previous two, and the differences from *P. oblitum* were hence more readily discernible.

On checking the previously described synonyms of *P. oblitum*, it was found that the original description of *P. oblongum* (O. P.-Cambridge, 1871) and subsequent redescriptions by F. O. P.-Cambridge (1894) and Jackson (1913) appeared to match the new material, and this has been confirmed by comparison with the types of *P. oblongum* in the O. P.-Cambridge collection and further females from the F. O. P.-Cambridge collection. Jackson (1913) expressed doubts about whether *P. oblongum* was a species distinct from *P. oblitum*, and *P. oblongum* was formally synonymised with *P. oblitum* by Millidge & Locket (1952) on the basis of a comparison of the vulvae of the types of the two species. The types of *oblongum* are in poor condition and badly bleached, and in the absence of fresh material or a male this was a reasonable decision to have made. The vulvae of the two species are indeed similar, and possibly not distinguishable with certainty, but examination of the fresh material confirms the presence of several diagnostic somatic characters which were mentioned by Jackson (1913), although he was unsure of their significance.

A single male of *P. oblongum* was described by F. O. P.-Cambridge (1894), but the description and figures are inadequate to distinguish it from related species. Jackson (1913) stated that he was unable to trace this specimen, and it still appears to be lost. No further males have been found.

Porrhomma oblongum was originally described by O. P.-Cambridge (1871) as *Linyphia oblonga*, which is a primary homonym of the fossil spider *Linyphia oblonga* Koch & Berendt, 1854. The specific name must therefore be replaced, and the new name *Porrhomma cambridgei* is hereby proposed.

The redescription of the female which follows is based mainly on the recently collected specimens, with some comparisons and measurements being made with the Pickard-Cambridge material. All measurements are in mm. BMNH=British Museum (Natural History), HECO=Hope Entomological Collections, Oxford.

Porrhomma cambridgei, new name (Figs. 1–4)

Linyphia? oblonga O. P.-Cambridge, 1871: 433 (descr. ♀). Primary homonym of *Linyphia oblonga* Koch & Berendt, 1854: 5, 8, 40.
Linyphia oblonga: O. P.-Cambridge, 1879: 204.
Porrhomma oblongum: F. O. P.-Cambridge, 1894: 102, plate II, fig. 4a–c (descr. ♀ ♂); Jackson, 1913: 43, fig. 25; Bristowe, 1939: 87; Roewer, 1942: 601; Millidge & Locket, 1952: 71; Bonnet, 1958: 3759.

Etymology: The new specific name is a patronym in honour of the original collector and author, Octavius Pickard-Cambridge.

Diagnosis: Closely related to *P. oblitum*, which it resembles in lacking a dorsal spine on femur I and in general appearance of the vulva, but easily distinguished by much smaller eyes, absence of prolateral spine on tibia I, relatively longer legs, and usually paler coloration.

Female: Total length (n=13) 1.5–1.85. Carapace length (n=20) 0.68–0.80, width (n=13) 0.50–0.55. Abdomen length (n=3) 0.85–1.15. Carapace, legs and sternum pale yellow-brown to yellow-brown. Abdomen greyish white to yellow-brown suffused with grey. Carapace with a few short hairs in midline and on clypeus. Eyes very small, but variable in size and interdistances. AME 0.5–1 diam. apart and 2.5–3 diam. from ALE; PME 1.5–2 diam. apart and 3–4 diam. from PLE. Femur I with 1 prolateral spine, but no dorsal femoral spines. All tibiae with 2 dorsal spines, tibiae I–II with 1 retrolateral spine, position *c.* 0.6. No prolateral spine on tibia I. TmI (n=3) 0.43–0.45. Legs relatively long and slender, compared with *P. oblitum* and *P. montanum* Jackson (see

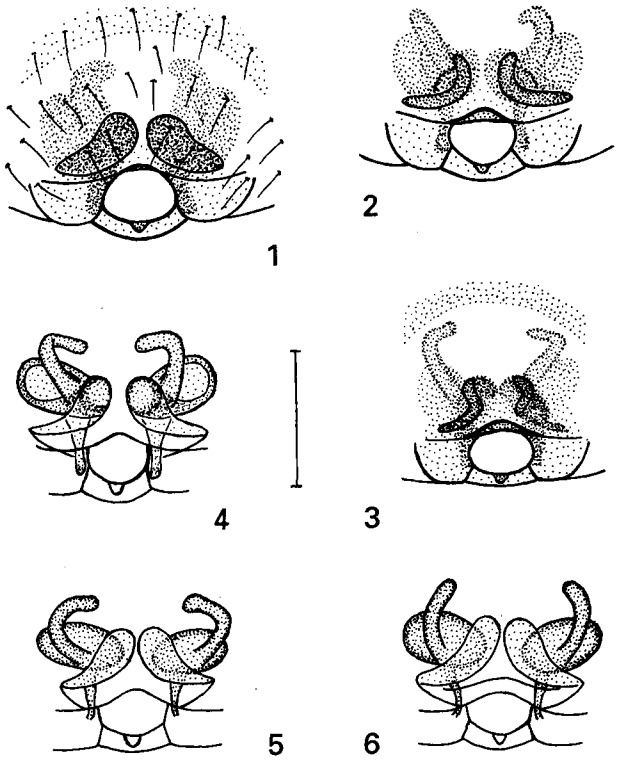
	P. cambridgei (n=13)	*P. oblitum* (n=9)	*P. montanum* (n=6)
Carapace length	0.68–0.80	0.69–0.77	0.89–0.95
Carapace width	0.50–0.55	0.48–0.55	0.59–0.66
Femur I length	0.62–0.68	0.49–0.58	0.68–0.75
Femur IV length	0.65–0.75	0.52–0.62	0.75–0.82
Tibia I length	0.52–0.60	0.39–0.46	0.57–0.63
Tibia IV length	0.60–0.68	0.45–0.55	0.70–0.75
Ratio FeI/CL	0.82–0.91	0.70–0.75	0.76–0.82
Ratio FeIV/CL	0.87–0.97	0.74–0.81	0.83–0.87
Ratio TiI/CL	0.69–0.78	0.56–0.60	0.63–0.68
Ratio TiIV/CL	0.80–0.90	0.65–0.72	0.76–0.80

Table 1: Lengths of femora and tibiae I and IV, compared with carapace length and width, in females of *P. cambridgei*, *P. oblitum* and *P. montanum*.

Table 1). The ratios of length of femur or tibia I or IV/carapace length are useful diagnostic characters separating *P. cambridgei* from *P. oblitum*, in addition to the presence of a prolateral spine on tibia I in *oblitum* and in *montanum*. Epigyne (Figs. 1–3): The appearance varies considerably, depending on the extent to which the internal structures show through the integument. Vulva (Fig. 4): Similar to that of *P. oblitum* (Figs. 5–6), and possibly not distinguishable with certainty. Both species are variable, but the spermathecae of *cambridgei* tend to lie at more of an angle with their ectal ends further anterior to their mesal ends, and the anterior tubular extensions to the spermathecae usually extend further anteriorly in *cambridgei*, and are not curved as far ectally as in *oblitum*. Thaler (1968: fig. 3d) illustrates the vulva of an *oblitum* from Kavistojo, Finland, which looks very much like the vulva of *cambridgei*. This specimen has been examined, and it appears to be a typical *oblitum* in all other respects. Roberts (1987: fig. 57c) gives five drawings of the epigyne of *oblitum*; they are probably all genuine *oblitum*, but the two right-hand drawings approach the appearance of *cambridgei*.

Male: Described inadequately by F. O. P.-Cambridge (1984) but no specimen known to exist.

Material examined: Types, Dorset, Bloxworth, O. P.-C. Coll., HECO 5060f (xii), 1♀ and 5060f (xiii), 2♀, no date. Hertfordshire, Hoddesdon, O. P.-C. Coll. (ex F. O. P.-C., 1894), HECO 5060d (ix), 3♀ and 5060d(x), 3♀. Hoddesdon, F. O. P.-C. Coll., HECO jar 18 tube 1, F. M. Campbell leg. 1892, 19♀. Sussex, Lancing, Applesham Farm (Grid ref. TQ 184077), pitfall trap in grazed rye-grass field, June 1990, 1♀, and water trap in winter wheat field *c.* 10 m away, July 1990, 1♀, leg. C. J. Topping (deposited in BMNH). Middlesex, Muswell Hill, Coldfall Wood (Grid ref. TQ 275904), pitfall trap in damp area with clumps of *Juncus effusus* L. in newly coppiced *Carpinus-Quercus-Betula* wood, March 1993, 1♀, leg. J. E. D. Milner (deposited in BMNH).



Figs. 1–4: *Porrhomma cambridgei*, new name, females. **1** Epigyne (specimen from Coldfall Wood); **2,3** Epigynes (specimens from Applesham Farm); **4** Vulva, ventral view (same specimen as Fig. 2).

Figs. 5–6: *Porrhomma oblitum* (O. P.-Cambridge), females. **5** Vulva, ventral view (Morden, Dorset); **6** Vulva, ventral view (Blackmoor Copse, Wiltshire). Scale line=0.1 mm.

As stated by Locket (1964), O. P.-Cambridge frequently used the term "type" loosely on labels to refer to reference specimens of a species which he used for comparisons. However, in this instance it seems reasonable to regard as syntypes the three females from Bloxworth listed above which are labelled "types", since they are the only specimens of *cambridgei* from Bloxworth in the O. P.-Cambridge collection, and O. P.-Cambridge (1871) refers to several females from Bloxworth in his original description. As they are all in very poor condition, there seems little point in designating one of them as a lectotype. The specimens from Hoddesdon from the F. O. P.-Cambridge collection are in much better condition, and clearly belong to the same species.

Distribution and habitat: The only certain records of *P. cambridgei* are those listed in "Material examined" from Dorset, Hertfordshire, Middlesex and Sussex. O. P.-Cambridge (1871) described females as being "not infrequent in May and June upon iron railings at Bloxworth". These were presumably aeronauts; the surrounding area then, as now, was probably mainly a mixture of gardens, grass fields and broad-leaved woodland (judging from old maps and photographs, the immediate vicinity of Bloxworth has changed remarkably little in the last 100 years or so). The numerous specimens from Hoddesdon were taken on iron railings round a large meadow, in company with *P. errans* (Blackwall) (Campbell, 1883), and among grass, between March and May. The two specimens from Sussex were taken in traps in fields on chalk. The one in the water trap in a winter wheat field was probably ballooning, or trying to, and the one in the pitfall trap in the rye-grass field nearby is also likely to have been dispersing. The female from Middlesex was caught in a pitfall trap in a damp grassy area in a coppiced woodland, near the edge of the wood which was adjacent to a playing field. Coldfall Wood is only about 20 km from Hoddesdon, where the species was taken in large numbers in the 1880s.

The small eyes, relatively long legs, and pale coloration of *P. cambridgei* suggest that it lives mainly in subterranean habitats. A lack or paucity of males in surface collections is also a feature of some subterranean species, e.g. *Pseudomaro aenigmaticus* Denis and *Acartauchenius scurrilis* (O. P.-Cambridge). Possibly the adult females come up above ground to disperse, but the males do not, or only rarely. The specimens from Sussex were in fields on chalk, where subterranean species are likely to occur in small fissures in the soil. All the other specimens also came either from grassland or from railings or woodland close to grassland.

O. P.-Cambridge (1894, 1902) records finding both sexes at Bloxworth among herbage in a wood in June 1893 and among grass and other herbage in June 1900 respectively, but as these specimens are not in his collection they were probably misidentifications, as indeed are most other references to "*P. oblongum*" in the literature.

Acknowledgements

I am greatly indebted to Dr C. J. Topping and Mr J. E. D. Milner, for sending me their specimens of *P. cambridgei* which initiated this investigation. I also wish to thank Dr I. Lansbury (HECO) for the loan of material from the O. P.-Cambridge and F. O. P.-Cambridge collections, Dr A. Hänggi (Naturhistorisches Museum, Basel) for the loan of the specimen of *P. oblitum* from Kavistojo, and R. Snazell, D. R. Nellist and P. R. Harvey for the loan of comparative material of *P. oblitum* and *P. montanum*. Thanks are also due to Dr A. F. Millidge and Dr K. Thaler for helpful comments on an earlier draft of this paper.

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Addendum

After this paper had been completed, I received a female of *P. cambridgei* from J. Wunderlich, which had been collected in Germany in April 1992 (among sparse vegetation in a sandy area near Heidelberg). He has since informed me (in litt.) that he has collected 4 females and 2 males of *cambridgei* in 4 different places in Germany. Judging by his drawings which he sent me, the male palp is very similar to that of *oblitum*, as might be expected from the close similarity of the epigynes. Thus it appears that both sexes of *cambridgei* can be separated from *oblitum* by their genitalia only with difficulty, if at all, but the small eyes, absence of prolateral spine on tibia I, and relatively longer legs of *cambridgei* remain as clear diagnostic characters. It will be of interest to compare British males of *cambridgei*, when they are eventually found, with the German males of *cambridgei* and males of *oblitum*.