The male of *Nothophantes horridus* Merrett & Stevens (Araneae: Linyphiidae)

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Summary

The male of *Nothophantes horridus* Merrett & Stevens, 1995 is described from material collected in a limestone quarry close to the type locality in south-west England. The taxonomic affinities of the genus are discussed, based on the male palpal structure.

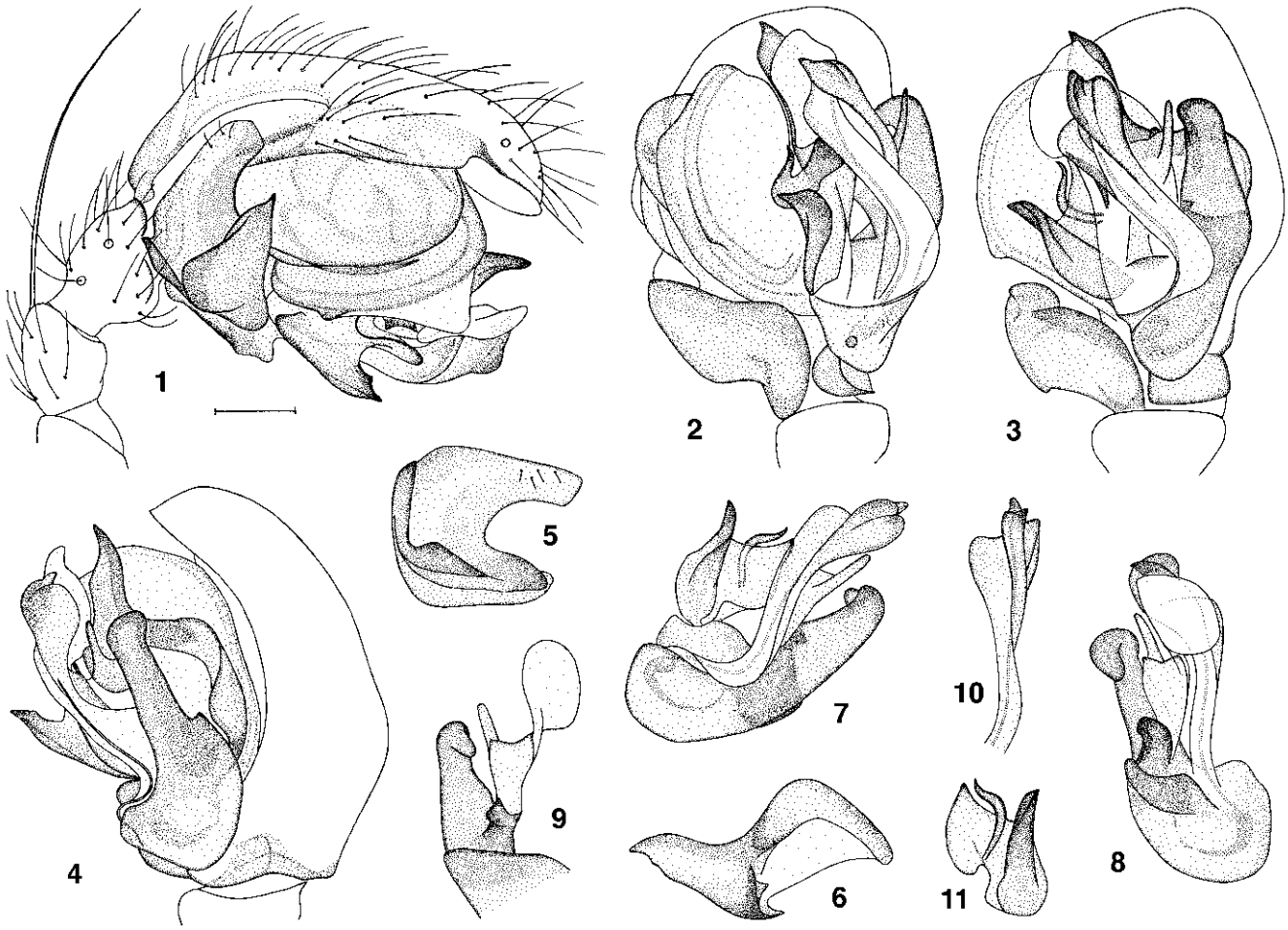
Introduction

Nothophantes horridus was described by Merrett & Stevens (1995) from six females collected at Shapter's Field quarry, Plymouth, Devon, between 1989 and 1994. On 1 March 1997 two males which clearly belong to the same species were collected in company with a female in another disused limestone quarry about 200 m from the type locality. The male is described here, based mainly on the detailed structure of the palp, and the status and affinities of the genus are discussed. Nomenclature of parts of the male palp follows Saaristo & Tanasevitch (1996). All measurements are in mm.

Genus *Nothophantes* Merrett & Stevens, 1995

Diagnosis: The male palp (Figs. 1–4) is distinctive and does not resemble closely that of any other known genus, but it does not have any one obvious diagnostic character. The characters given for the female (Merrett & Stevens, 1995) remain the clearest diagnostic features of the genus.

Taxonomic position: The structure of the male palp supports the earlier conclusion based on the epigyne structure (Merrett & Stevens, 1995) that *Nothophantes* belongs to the subfamily Micronetinae as defined by Millidge (1984), and subsequently redefined by Saaristo & Tanasevitch (1996), and further that it belongs to the Lepthyphantinae as defined by Millidge (1993) and the



Figs. 1–11: *Nothophantes horridus* Merrett & Stevens, male. **1** Right palp, ectal; **2** Ditto, ventral; **3** Ditto, ventro-mesal; **4** Ditto, mesal; **5** Paracymbium, dorso-ectal; **6** Suprategulum, ventro-mesal; **7** Embolic division, ventro-mesal; **8** Radix and embolus, dorso-ectal; **9** Distal end of radix with median membrane, dorso-ectal; **10** Embolus, ventro-mesal; **11** Lamella and terminal apophysis, dorso-ectal. Scale line = 0.1 mm.

Lepthyphantes group of Millidge (1977). The palp structure is closer to that of some *Lepthyphantes* species than *Centromerus* in that the lamella and terminal apophysis are fused together but clearly separated by membrane from the radix, whereas in *Centromerus* the lamella is usually fused to the radix but separated from the terminal apophysis. However, the Fickert's gland in the radix is elongated, as in *Centromerus*, not spherical as in *Lepthyphantes*. The fused lamella and terminal apophysis of *Nothophantes* is rather reminiscent of those of *Lepthyphantes expunctus* (O.P.-C.) and *L. obscurus* (Blackwall) (Merrett, 1963: figs. 13, 14), as is the lightly sclerotised proximal part of the median membrane, but the epigyne is very different from these species. The paracymbium of *Nothophantes* is unusually broad and heavily sclerotised compared with most *Lepthyphantes* species, this probably being related to the large epigynal cavity.

The uncertain relationships of the palpal structure, combined with the unusual form of the epigyne, indicate that the separate genus *Nothophantes* is fully justified.

***Nothophantes horridus* Merrett & Stevens, 1995** (Figs. 1–11)

Nothophantes horridus Merrett & Stevens, 1995: 119, figs. 1–3 (descr. ♀).

Male: Total length 2.4–2.45. Carapace length 1.05–1.1, width 0.8–0.85. Abdomen length 1.25–1.3. All somatic characters as in female, except no prolateral spine on tibia II, and ventral spine on tibia I sometimes absent. Palp (Figs. 1–11): Patella with a long curved dorsal spine. Tibia with 1 dorsal and 2 retrolateral trichobothria; slightly thickened distally but with no true apophysis. Cymbium thickened postero-dorsally, but no marked dorsal projection. Paracymbium (Figs. 1, 5) broad, heavily sclerotised, with prominent posterior and anterior pockets. Suprategulum (Fig. 6) of simple form, with broad pointed suprategular apophysis. Radix (Figs. 7, 8) heavily sclerotised distally, more lightly sclerotised towards proximal end which carries loop of duct with elongated Fickert's gland. Median membrane (Figs. 8, 9) (="embolic membrane" of Millidge (1977) and "membrane" of Merrett (1963)) arises from junction of radix and membrane from suprategulum; proximal part lightly sclerotised, and with long finger-like terminal process; distal part membranous and lies close to dorsal surface of embolus. Lamella short and stout, heavily sclerotised and twisted distally, anterior edge attached to thin plate-like structure which probably represents the terminal apophysis; this bears a thin, curved pointed process on its dorso-ectal surface (Figs. 7, 11). Embolus long, narrow and semi-membranous for most of its length, distally sclerotised and broadened to form several complicated lobes; duct terminates in a short point (Fig. 10).

Material: 2♂ 1♀, Cattedown, Plymouth, Devon, grid ref. SX 492539, 1 March 1997, under rubbish (industrial packaging) on floor of disused limestone quarry. One male deposited in Natural History Museum, London, 1♂ in Merrett coll.

One further female was collected at the type locality in March 1996, and three other females have been seen in the field there but not collected.

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