

Notes on a female *Chrysotoxum verralli* Collin, 1940 (Diptera, Syrphidae) from Little Comberton, Worcestershire with particular reference to dichotomous keys

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The syrphid fly *Chrysotoxum verralli* Collin, 1940, is a localised species in Worcestershire with few records. According to Stubbs and Falk (1983) it often found in grassy places in or near woodland. Mr K. McGee (*in litt.*, 15 November 2022) has a scatter of Worcestershire records of *C. verralli* from Mill Meadow, Drakes Broughton (VC37 SO94) made between July 2005 and July 2008 indicating an established population at that site. This site fits perfectly well with habitat descriptions. A recent author's record from an abandoned top fruit valley orchard at Smallbrook Meadows, Warminster, Wiltshire (51°19'N 02°17'W VC8 ST84 117m. O.D.) on 13 July 2019 also agrees with described habitat preferences.

A female Worcestershire example that was found drowned in a Little Comberton garden (VC37 SO94) on 5th August 2022 (01) was apparently not in typical habitat. *Chrysotoxum* spp. are not an easy group to disentangle and I find it is usually necessary to resort to keys. Using the key in Stubbs and Falk (1983) it seemed that the

Little Comberton female might be assigned to *C. verralli* except that according to those authors “all hairs on the scutellum are black in female *verralli*” whereas that example exhibited numerous yellow hairs on the scutellum all around its periphery (02).



01. Female *Chrysotoxum verralli* Little Comberton, Worcestershire, 5 August 2022. Paul Whitehead.



02. Female *Chrysotoxum verralli* Little Comberton, Worcestershire, 5 August 2022. The arrows mark the position of the more conspicuous yellow hairs on the scutellum. Paul Whitehead

Given this uncertainty I approached the Dutch specialist Dr Menno Reemer from EIS Naturalis Biodiversity Centre who promptly identified the specimen as *C. verralli* using a range of criteria. It is of course normal to occasionally encounter examples of species that diverge from stated key characters often in quite surprising ways. In this instance it could be due to either a fundamental error in the construction of the key, an inexactness, for example, that only the centre of the scutellum is dark-haired in female *C. verralli*, or that this species varies more widely than has been understood; something that could only be compared through access to numerous specimens. It does seem, from other specimens seen, that the presence of yellow scutellar hairs in female *C. verralli* may not be unusual. The important point here is that whilst a great deal of faith can be placed on expertly-created dichotomous keys it is often useful to test them.

The sudden appearance of *C. verralli* at a site in Little Comberton that has been studied for 52 years is difficult to explain. It could mean that the species is becoming more expansive geographically, that it was responding to some of the extraordinary vacillations of climate experienced during 2022, or both.

Acknowledgments

Mr K. McGee kindly provided details of his sightings of *C. verralli* in Worcestershire. Dr M. Reemer kindly pronounced on the Little Comberton specimen.

References

Stubbs, A. E. & Falk, S. J., 1983. *British Hoverflies*. British Entomological & Natural History Society.