

## Notes on a Dictynidae spider *Nigma puella* in Worcestershire.

Jean Young and Gary Farmer

### 1. *Nigma puella* at Besford

Jean Young

Over several years I have enjoyed observing a local population of the small green spider *Nigma walckenaeri* (Young 2015 & 2017) which belongs to the Dictynidae family. The family are commonly called Meshweb spiders as the webs they produce are an irregular tangle of silk. Although messy they are an effective way of capturing prey, as hairs and spines on legs and bodies of prey species get caught on the silk while the spider remains sheltered under the web.

As a result of my studies I have become familiar with the general look of the Dictynidae, so when I spotted a small green spider under an oak *Quercus* leaf in August 2022 (01 & 02) I suspected that it belonged to this family. The majority of the species within the Dictynidae require microscopic examination of genitalia to identify them to species and as I tend not to collect specimens, my recording of this family has been restricted to the easily identifiable *Nigma walckenaeri*. I was pleased to find that my new discovery was another member of the *Nigma* genus, *Nigma puella*, which can also be identified in the field or from good photos (Bee, Oxford & Smith 2017).



01. *N. puella* female under oak leaf 17.08.2022. Jean Young.



02. *N. puella* female under oak leaf 17.08.2022. Jean Young.

My spider was a female and although she was like *Nigma walckenaeri* in her pale green colouring with white hairs, she was smaller and had a dark brown/reddish patch in the middle of her abdomen. The red markings on the females of *N. puella* appear to be

quite variable, as some have a reddish mark in the midst of the abdomen, whereas in others the red colouring can extend along the midline of the abdomen. The males look quite different as they have a reddish-brown carapace and a pinkish-red abdomen.



03. *N. puella* female on Ivy leaf emerging from her retreat 27.05.2023. Jean Young.

I encountered a second female in May 2023 (03) under her retreat on Ivy *Hedera helix* covering a wall. She had the distinctive reddish mark on her abdomen, but her carapace had red/brown colouring either side of the central pale area, unlike my 2022 female whose carapace was green.

On the NBN atlas, there are 115 records of *N. puella* and it is listed as Nationally Scarce (i.e. occurring in 16-100 hectads in Great Britain), based on the Review of the scarce and threatened spiders of Great Britain in September 2017. It seems likely that this spider is spreading as the Spider Recording scheme has 601 records over 168 hectads and there are 205 records on iRecord.

The Spider Recording Scheme reports that: -

- 'The species is restricted to south of a line from Suffolk to Glamorgan'.
- 'The spider occurs on low broad-leaved bushes and shrubs in hedgerows and gardens, but also sometimes in scrub and open woodland. It spins a small web on the surface of leaves. Both sexes are adult in May and July. In North Essex females with egg-sacs have been found in their webs on the under-surface of leaves in September but most records have been in June and July.'

However, there are a few records north of the area mentioned above, and I suspect that due to its size this spider is under-recorded, and that there is still much to learn about its distribution and phenology. It would be good to get some more records for Worcestershire although it may require a concerted effort to find them as the males are 2.0 – 2.8mm and the females are slightly larger 2.5 - 3.0 mm! My sightings were on ivy and oak leaves, at an easily accessible height for searching of between about 4 to 6 feet from the ground.

### Acknowledgements

Thanks to Gary Farmer whose recent discovery of *N. puella* not far from Besford, prompted me to check out and record the sightings that I had previously only tentatively identified as *N. puella*. Thanks also to Simon Wood for checking the Worcestershire Biological Records Centre database and confirming that apart from my sightings and Gary Farmer's there were no other records for *N. puella* in the county at the time of searching (10.11.23 ( this included iRecord data up to mid- September 2023).

### References

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#### Websites

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<https://srs.britishtspiders.org.uk/portal.php/p/Summary/s/Nigma+puella> [accessed 12.11.23].

#### Images

01. *Nigma puella* female under oak leaf 17.08.2022. Jean Young.  
 02. *Nigma puella* female under oak leaf 17.08.2022. Jean Young.  
 03. *Nigma puella* female on Ivy leaf emerging from her retreat 27.05.2023. Jean Young.

## 2. More notes on *Nigma puella* in Worcestershire

Gary Farmer

My first sighting of *Nigma puella* came in 2020 while reviewing photos taken at the Kemerton Estate by Nicki Farmer. One image of a *Tetragnatha* sp. showed what we initially thought were eggs (01), but on closer inspection it proved to be a female *N. puella* hiding under her silken sheath on a Field Maple *Acer campestre* leaf. This turned out to be a first record for Worcestershire.



01. *Nigma puella* and *Tetragnatha* sp. on Field Maple Leaf. Kemerton 30.08.2020. Nicki Farmer.

I had my first 'in the flesh' encounter with this tiny spider three years later when I found a female on Mistletoe *Viscum album* on 30.10.2023 at Stocken Orchard (02 & 03). I searched a few more clusters of Mistletoe leaves and found a second female (03 & 04). I sent my images round to few local spider-fans including Jean Young, and this prompted her to check some photographs that she had taken the previous two years from nearby at Besford (see notes above).

So we now have three recorded sites for this little spider from the south of Worcestershire, all of females. It appears that the females persist later into the season than the males. This, combined with their small size, is probably why no males have been found in the county yet. From Jean's and my own observations they are not restricted to any particular tree or shrub, and if this species spreads as quickly as

its larger, greener cousin *N. walckenaeri* has, then it will soon be one to search for anywhere in the county.



02. *N. puella* on Ivy. Stocken Orchard 30.10.2023. Gary Farmer.



03. *N. puella* from Ivy. Stocken Orchard 30.10.2023. Gary Farmer.



04. *N. puella* on Ivy. Stocken Orchard 30.10.2023. Gary Farmer.



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