Searching for Smaller Ladybirds in Worcestershire.

John Bingham & Denise Bingham

Our interest in the smaller ladybird species started with the publication of the Ladybird Atlas in 2011 (Roy *et al* 2011). The Atlas was not intended as an identification guide and did not include any keys but did include photos and 10km distribution dot maps. It made us aware of the numerous smaller species that we had not seen and had possibly overlooked. Following this an illustrated *Field Guide to Ladybirds* was published (Roy *et al* 2018) but the mapping was less accurate and again with no key to species, but it did include Richard Lewington's excellent illustrations to aid the identification of species. Denise is keen on these smaller insects and often finds them hidden in herbage, presenting John with the challenge of photographing these active 2mm long subjects. The first smaller ladybird we found was *Rhyzobius litura* (01) swept up by Denise at the Rifle Range on 5th June 2014. This was followed by *Coccidula rufa* (02) on 15th July 2014 at Wilden Marsh.



01. Rhyzobius litura. Rifle Range 05.06.2014. John Bingham.



02. Coccidula rufa. Wilden Marsh 17.07.2014. John Bingham.



03. *Rhyzobius chrysomeloides*. Kidderminster garden. John Bingham.

Our garden is well recorded for insects and has produced six of the smaller ladybird species; *Rhyzobius litura*, *R. chrysomeloides* (03), *R. lophanthae*, *Clitostethus arcuatus*, *Scymnus interruptus* and *Stethorus pusillum*. *R. lophanthae* (04) was first seen on 15th May 2017 (originally mis-identified as *Cryptolaemus montrouzieri*}.

Brett Westwood alerted us to look again for *R. lophanthae* after he found it in 2018. Denise has now found it to be quite common in our Leyland cypress conifer hedge. It was introduced into the UK as a biological control agent in 1997 and has spread considerably.

The tiny *Stethorus pusillum* (05) just 1.5mm long, was found on Hazel and other leaves but it is far less common than *R. lophanthae* although perhaps it is harder to spot. *Rhyzobius litura* and *R. chrysomeloides* regularly occur in the garden, often associated with Ivy *Hedera helix*.



04. *Rhyzobius lophanthae* Kidderminster garden 15.03.2017. John Bingham.



05. Stethorus pusillum Kidderminster garden 02.09.2018. John Bingham.

The Devil's Spittleful also seems to be a good location to find both these species. Identification can be tricky with examination of the prosternal keel needed, though habitat helps somewhat but not definitive proof; *R. litura* is usually swept from grasslands, whereas *R. chrysomeloides* is often beaten from trees. *Scymnus suturalis* (06) has also been found here swept from Scots Pine *Pinus sylvestris*.



06. Scymnus suturalis Swept from Scots Pine, Devil's Spittleful. John Bingham.

Clitostethus arcuatus (07) has been documented by Alan Brown and Paul Whitehead (Brown and Whitehead 2012, Brown 2014) as occurring in the Kidderminster area. It was not that unexpected when we found another new site for this species in Kidderminster on 8th August 2018 on Greater Celandine Chelidonium majus along a main road on the western edge of the town. It seems to like Ivy growing thickly on walls and trees but can also be found feeding on whitefly on Greater Celandine. Denise found it under a conifer hedge in our garden in 2019.



07. Clitostethus arcuatus Kidderminster 08.08.2018. John Bingham.

On 8th September 2018 we joined Brett Westwood for a miniladybird expedition in Kidderminster Cemetery and between us we added three species. These were *Scymnus frontalis* (08) and *Nephus quadrimaculatus* (09) taken from various conifer trees, and more records of *R. chrysomeloides*.



08. Scymnus frontalis Kidderminster Cemetery 18.09.2018. John Bingham.

Our own personal list was curtailed somewhat by Covid 19 restrictions, but now stands at nine species to date for Worcestershire. There are still several more species that should occur locally to add to our list. Some have already been found just over the border in Shropshire, so our search goes on.

Gardens are clearly a good place to start looking for these little ladybirds, and with the two guides mentioned earlier along with Andrew Jewel's Web page and Mike Hackston's Insect keys-Coccinellidae, there is no reason why more people shouldn't be searching for them to help increase our understanding of their distribution and preferred habitats in Worcestershire.



09. *Nephus quadrimaculatus* Kidderminster Cemetery 18.09.2018. John Bingham.

List of small ladybird species found by John & Denise Bingham including date first found:

Rhyzobius chrysomeloides 10/10/2017

Common, parkland, woods, especially conifers.

Rhyzobius litura 05/06/2014

Quite widespread, typically on dry grasslands.

Coccidula rufa 15/07/2014

Quite common in wet areas, marshlands etc

Rhyzobius lophanthae 11/05/2017

Kidderminster Garden, Stourbridge Cemetery

Clitostethus arcuatus 08/08/2018

Uncommon, Kidderminster, Far Forest hedge

Stethorus pusillum 21/08/2018

Rare, Kidderminster Garden

Scymnus suturalis 25/09/2018

Devil's Spittleful NR, Stourbridge Cemetery

Nephus quadrimaculatus

02/10/2018 Kidderminster Garden, Kidderminster Cemetery

Scymnus frontalis 02/10/2018

Kidderminster Garden, Kidderminster Cemetery

Scymnus interruptus 23/04/2020

Kidderminster Garden

References

Brown, A & Whitehead, P.F. 2012. *Clitostethus arcuatus* (Rossi, 1794) (Col., Coccinellidae) breeding in the Kidderminster area of Worcestershire: overwintering strategies and breeding biology. *Worcestershire Record* 33:20-22.

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Roy, H.E., Brown, P.M.J., Frost, R. & Poland, R.L. 2011. *Ladybirds* (*Coccinellidae*) of Britain and Ireland. Field Studies Council Publications.

Roy, H.E. Brown, P.M.J., & Lewington, R. 2018. *Field Guide to the Ladybirds of Great Britain and Ireland*. Bloomsbury Wildlife. Andrew Jewel's Web page. Available at:

https://www.andrewjewels.com/ [Accessed 06.05.22]
Mike Hackston's Insect keys- Coccinellidae. Available at: https://sites.google.com/site/mikesinsectkeys/Home [Accessed 06.05.22]

Images

- 01. Rhyzobius litura. Rifle Range 05.06.2014. John Bingham.
- 02. Coccidula rufa. Wilden Marsh 17.07.2014. John Bingham.
- 03. Rhyzobius chrysomeloides. Kidderminster. John Bingham.
- 04. Rhyzobius lophanthae Kidderminster 15.03.2017.
- 05. Stethorus pusillum Kidderminster 02.09.2018. John Bingham. 06. Scymnus suturalis Swept from Scots Pine, Devil's Spittleful.
- John Bingham.
- 07. *Clitostethus arcuatus* Kidderminster 08.08.2018. John Bingham. 08. *Scymnus frontalis* Kidderminster Cemetery 18.09.2018.
- John Bingham.
- 09. Nephus quadrimaculatus Kidderminster Cemetery 18.09.2018. John Bingham.