Three species of ants found at Hanbury Hall, Worcestershire in October/November 2020: one Nationally rare (Na), one a second county record and one first county record.

Gary Farmer & Nicki Farmer
with additional comments from Mike Fox

Brown Tree Ants *Lasius brunneus* (Nationally notable A) apparently feeding on rotten windfall apples.

Lasius brunneus is known to nest in trees and is rarely seen on the ground (Skinner & Allen 1996). It is a Nationally rare (Na) insect but is fairly common in Worcestershire, being associated with old trees in orchards and parks and occasionally old timbers in buildings. Despite its arboreal life style, this species has been found on flowers of White Dead-nettle and Ramsons in the county and rarely in leaf litter beneath trees (Bingham & Bingham 2014 incl. Editor's note).

On 6th November 2020 Nicki Farmer noticed small brown ants under rotting windfall apples apparently feeding on them in the gardens of Hanbury Hall, Worcestershire. Some of these ants were examined by Gary Farmer and identified as Brown Tree Ants *Lasius brunneus*. We had not seen this species feeding on apples before and have been unable to find any reference to this behaviour. The apples were two to three metres from the nearest tree, so the question is: how far do *Lasius brunneus* roam from their nest-tree and were they actually feeding on the rotting apples or just sheltering under them?

A cosmopolitan tramp ant *Hypoponera ergatandria* discovered in Worcestershire at Hanbury Hall gardens in Grass Snake eggs.

On 21st October 2020 Nicki Farmer was digging out a two-year-old leaf-mould pile at Hanbury Hall to spread on the garden when she found 195 Grass Snake eggs (01). All had hatched except for a few which contained dead but fully formed snakes. One of the eggs was split revealing the dead snake (02) so she brought it home with a few other egg shells to photograph.

While removing the snake from the shell (03), Gary Farmer noticed an unusual small ant (04 & 05). This keyed out in Skinner & Allen (1996) to *Ponera coarctata* and Hanbury is well outside of its known range. The BWARS website notes that this species has been found by baiting with minced meat, so it was presumed to have been feeding on the dead snake. However, a note in the key suggests that a hot-house species *Hypoponera punctatissima* would key out at the same point. So photos were sent to Mike Fox at BWARS for him to check including a close up of the profile showing the petiole detail (06). He responded, confirming it to be a hot-house species: "I think this is *Hypoponera punctatissama*. *Ponera* have a differently shaped subpetiolar process with a translucent fenestra or thin-spot near the front (07 & 08). I passed the photo to a colleague Phil Attewell and he agrees with me that the ant is *Hypoponera*. He also commented, as you did, that it is a bit out of range for *Ponera coarctata*.

01. A few of the Hanbury Grass Snake eggs. G. Farmer.

02. Close up of dead snakelet. G. Farmer

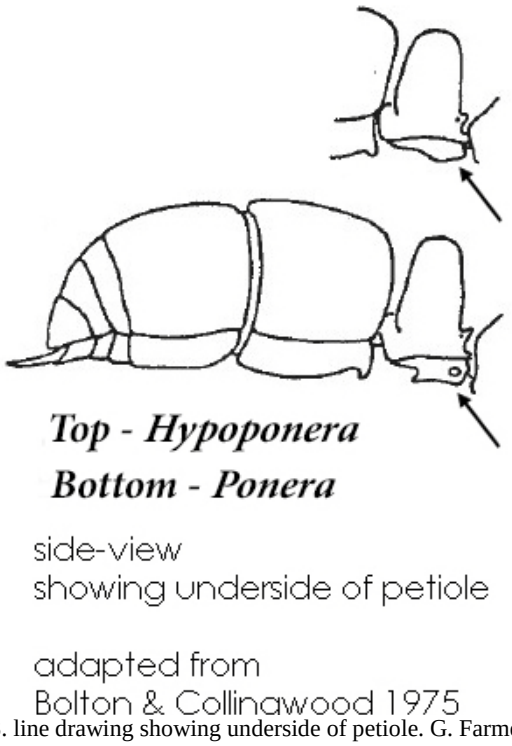
03. Dead Grass Snake extracted from egg. G. Farmer

04 & 05. *Hypoponera ergatandria* 21.10.20 Hanbury. G. Farmer

When *Hypoponera* are found away from buildings it is usually in some form of rotting heap of vegetation, manure, sawdust or, as in this case, a pile of leaves. In addition to *H. punctatissima* there is a very slim possibility of *H. ergatandria*. I have several times separated these two species but to do so requires careful measurement of scape length and head width. I've only ever done this with actual specimens under my microscope, but if you're a keen photographer and game for a challenge how about taking a photo of the scape at an angle perpendicular to the direction of the shot and another of the full-face view. The two pictures would need to be at the same scale but I don't need to know the scale as it's the ratio I need to determine rather than the actual measurements."

06. *Hypoponera ergatandria* 21.10.20 Hanbury Hall. G. Farmer

07. manipulated image showing petiole. G. Farmer



08. line drawing showing underside of petiole. G. Farmer

Full face photos (09) were sent but unfortunately after careful measurement and calculations the results were ambiguous and Mike was unable to be certain about the species.

09. *Hypoponera ergatandria* face. G. Farmer

So the specimen was sent for further examination and a positive, if surprising result was obtained with the following comment:

"I glued the ant to the tip of a card point so that I could move it into the ideal positions under my microscope for taking accurate measurements of its head and scapes and am both pleased and surprised to report that it is a worker of *Hypoponera ergatandria*. I confess that this had been the conclusion I had come to earlier from your photograph but it was surprising and I needed to make measurements on the actual specimen to be absolutely sure."

Details of the calculation required can be found in Seifert (2013). The BWARS distribution map shows there are very few records for this species and this record adds a new dot to the national map, a new ant for the county and a good reason to check in or near hot-houses for further specimens of either of the *Hypoponera* species.

A second county record of the ant *Myrmecina graminicola* collected from Hanbury Hall gardens.

We set a couple of pitfall traps near to where the *Hypoponera* was found but didn't catch any more of this species, however we did catch another unusual ant, a *Myrmecina graminicola* (10 & 11).

10. *Myrmecina graminicola* 06.11.20 Hanbury Hall. G. Farmer

11. *Myrmecina graminicola* face. G. Farmer

This is a wonderfully wrinkled species and finally makes sense of the couplet in Skinners' key (Skinner & Allen 1996) which refers to ridges on the lower surface of the head (12).

12. *Myrmecina graminicola* underside of head showing one of the ridges. G. Farmer

The one previous record for the county is of a nest found on a Worcestershire Recorders recording day at Penny Hill quarry on 21st July 2001, found by Harry Green.

Mike Fox from BWARS commented that he believes it to be a very under-recorded species and that he "rarely finds *M. graminicola* when searching for ants. They will however readily come to an upturned half grapefruit or orange skin left on the ground overnight." We would be interested to know if this technique works in Worcestershire.

References

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Images

01. A few of the Hanbury Grass Snake eggs. G. Farmer.
02. Close up of dead snakelet. G. Farmer.
03. Grass Snake extracted from egg. G. Farmer.

04. *Hypoponera ergatandria* 21.10.20 Hanbury Hall. G. Farmer.
05. *Hypoponera ergatandria* 21.10.20 Hanbury Hall. G. Farmer.
06. *Hypoponera ergatandria* specimen 21.10.20 Hanbury Hall. G. Farmer.
07. *Hypoponera* image manipulated to highlight petiole. G. Farmer.
08. Hypoponera & Ponera petioles – line drawing adapted from Bolton & Collingwood 1975.
09. *Hypoponera ergatandria* face. G. Farmer.
10. *Myrmecina graminicola* 06.11.20 Hanbury Hall. G. Farmer.
11. *Myrmecina graminicola* face. G. Farmer.
12. *Myrmecina graminicola* underside of head showing one of the ridges. G. Farmer.