

NEWSLETTER 70

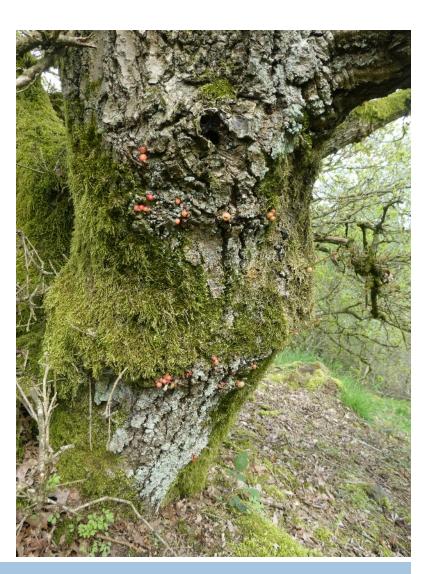
January 2024



Above and right: Sexual generation galls of *Trigonaspis megaptera* on oak trunks at the summit of Bardon Hill. See article on p. 8. Photos: Sue Timms.



Marbled White *Melanargia galathea* at Bloody Oaks Quarry NR, 2 July 2023. Photo: Steve Woodward.



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The editor will be happy to receive articles, short notes and photos (in focus please!) about insects or other invertebrates in Leicestershire and Rutland, also news of members' activities further afield. Photos to be sent separately please at high resolution. Unless otherwise credited, photos are by the author of the article.

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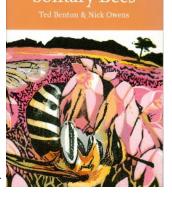
Errata

Two errors crept into my gall midge article in *Newsletter* **69**, page 7. The hotel was Kilworth House (not Kibworth) and the grid reference prefix should be SP, not SK. *Ed*.

Editorial

I am wearing two fleeces and clutching a mug of hot tea - hopefully 19 January will be the last very cold day for a while. Tomorrow I travel to Shrewsbury, returning to the very room where, in 1979, I had my first encounter with dichotomous keys, genitalia determinations, the Heath moth trap and its inventor! This was a Lepidoptera course at Preston Montford Field Centre, run by John Heath and Jim Reid, which steered me in the direction of "proper" recording. Since then my interests have wandered through other orders and I have forgotten most of the moths that I used to know. I was very pleased to have been invited to present a lecture on Leicestershire plants and invertebrates to an audience of Shropshire naturalists. I will enjoy pointing out a few things the we have that they lack!

My bed-time reading has been a New Naturalist volume, Solitary Bees by Ted Benton and Nick Owens (2023).Like others in this series, it is a substantial book (596 pages) about the biology of the group concerned, rather than identification guide. The thoroughness of research and wealth of original observations are



what impressed me about this book. The authors have spent many hours watching each species of bee, for example to see exactly how it collects pollen from the various flowers, which hairs are involved and how it is groomed onto the scopa. Likewise for nectar collection. Co-evolution between flowers and bees is treated in great detail across two chapters. The pros and cons of specialisation (by either flower or bee species) is discussed at length. There are chapters on parasites, ecology and conservation. I cannot write a full review in the time I have available, but it would certainly conclude with a recommendation.

My thanks go to all contributors, two of whom have written about the quest for the same much sought-after moth with a mysterious name, inspired by the illustration in *Moths of the British Isles* by South. Rather than risk upsetting anyone, I have included both accounts!

Steve Woodward Editor January 2024 LRES Newsletter 70

Box Tree Moth Cydalima perspectalis

I first recorded this moth back in 2010 in my native village in the mountains of northern Italy. As it was something new for me, I was quite pleased to have recorded a new species. Unfortunately, in the following years I realised this introduction was bad news - three years after the discovery, almost all the decorative Box trees hedges in the village were destroyed. The moth continues breeding from spring to autumn, and you can find eggs, larvae, pupae and adults at the same time. Just let's hope it does not get as bad as this here in England.

[Since its 2007 arrival in Britain, the moth is now widespread in England and has reached Scotland, Wales and Northern Ireland - Ed.]



Above: dark and normal forms of the Box Tree Moth. Right, top: Feeding larvae. Right, bottom: damaged box hedges in the cemetery at Falmenta, northern Italy. Photos: Gianpiero Ferrari FRPS.





Gianpiero Ferrari

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Gall-hunting on oaks - highlights of 2023



Fig. 1. Pseudoneuroterus saliens galls on Turkey Oak.

It is often a good idea to focus your recording on a particular group of species, and last year I was determined to fill some gaps in my knowledge by searching for some of the less common galls caused by Cynipid wasps on Turkey Oak *Quercus cerris* and English Oak *Quercus robur*.

Photographs of the species described below can be found on NatureSpot.

https://www.naturespot.org.uk/gallery/gall-wasps

Life cycles of gall-wasps on oak

The oak gall-wasps have complicated life cycles with alternating sexual/asexual generations, or 'cyclical parthenogenesis'. Typically, the gall formed by the females of the sexual generation appears in spring/early summer, and is on a different part of the oak to the later asexual (or agamic) generation. In many species, the sexual galls are recorded less often than the asexual galls, which are often larger and persist longer. Often the two types of gall are a very different shape, and originally some were thought to be different species; in some species, the sexual gall has not been found. The first generation sexual gall is produced in spring by an asexual female that lays eggs parthenogenetically, without them being fertilised by a male. The females are of two kinds; those that lay eggs which produce male wasps, and those that produce females. From this gall, the second generation of sexual wasps emerges, both male and female; these mate, and the females then produce the asexual galls later in the year.

Occasionally, the sexual galls are on Turkey Oak and the agamic on a native oak - e.g. *Andricus kollari*, the

Marble gall. *A. kollari* was deliberately introduced in the 1830s as a source of tannin to use in ink-making, but the other species are recent colonisers of the UK. They can spread rapidly north and west through the UK from their first recorded site, usually in the south-east. The most recent colonisers are *Pseudoneuroterus saliens* (UK 2006, Fig. 1), *Andricus gemmeus* (UK 2008, Fig. 10), and *Andricus infectorius* (UK 2013, Fig. 5), the former two species now well established in VC55, and the latter having been discovered in a few Charnwood Forest sites.

Spring and early summer galls on buds and catkins

Late spring is the time to hunt for galls on oak buds and catkins caused by the sexual generation of gall-wasps. These are often overlooked. Tiny galls formed on Turkey Oak buds can be found by diligent searching. These are the sexual galls of one of three species: *Andricus lignicola*, *A. corruptrix* and *A. kollari* - but are too similar to identify with confidence.

On Turkey Oak catkins, I soon found the bright red *Andricus grossulariae* galls. Much harder to find are the tiny sexual galls of *A. quercuscalicis*, less than 2 mm long and well-hidden in catkins. Galls were hard to find on the catkins of English Oak. I did find one tree on the Warren Hills with *A. quadrilineatus* galls (Fig. 2); a first for VC55. I searched in vain for



Fig. 2. The green ovoid gall on the English Oak catkin is caused by *Andricus quadrilineatus*.

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Fig. 3. Andricus quercuscorticis old galls on oak trunk.

Neuroterus politus, which I had found in 2021 at Bagworth Heath. I failed to find the one I really wanted to see - the Cotton Wool Gall, formed on catkins by the sexual generation of *Andricus quercusramuli*. This was last recorded in VC55 by Barbara Cooper in Long Clawson, and it seems to be rare in our area.

Sexual galls of *Pseudoneuroterus saliens* were found on a veteran Turkey Oak in Cotesbach, looking like scarlet sea anemones perched on the female catkins.

Early summer galls on Oak trunks and roots

In early summer I turned my attention to a different part of the tree. A highlight of the year in May was the astonishing number of the sexual generation galls of *Trigonaspis megaptera* on the trunks of oaks on the summit of Bardon Hill (front cover), first found as a few isolated examples by Melinda and Tim Bell in 2021. The bright red colours made them easy to spot at eye-level and lower down on oak trunks. I was pleased to re-find them in Lady Hay Wood, Groby, where they were recorded on a Lit and Phil excursion in 2015 and determined by Maggie Frankum.

Andricus quercusradicis, the asexual truffle gall, was a welcome re-find at Ulverscroft in May. It was recorded there by Peter Shirley in 1985, and a small colony was still present. I also found this at Bagworth

Heath, Lady Hay and Swithland Woods - but it is difficult to find; expect to crawl on hands and knees! *Andricus quercuscorticis* (Fig. 3) is an elusive gall on oak trunks, often favouring the callus-rimmed wounds and scars. It is never very common, but the old agamic galls were found in June in the Outwoods and few other sites. The agamic galls of *A. sieboldii* (Fig. 4, formerly *A. testaceipes*) are also very elusive, and said to like saplings and small branches low to the ground. A 2018 record by Annie Smith on Warren Hills is the first for VC55, but despite searching I failed to re-find it. However, in May last year I found a second - just one galled sapling at Bagworth Heath. Later in the year it is gets covered by long grass and is even harder to spot.



Fig. 4. The agamic galls of Andricus sieboldii.

Summer and autumn galls on oak leaves

Late summer and early autumn is the peak gall-hunting season, when many of the larger, asexual galls appear. Artichoke and Cola-nut galls, formed by the asexual generation of *A. foecundatrix* and *A. lignicola* respectively, were often abundant, but I recorded relatively few of the common Marble gall *A. kollari* and Ram's-horn galls *A. aries* compared to previous years.

2023 was a better year, at last, for two of the most attractive pea-galls - *Cynips longiventris* and *C. divisa*, found in several sites in late summer and autumn. Cherry gall, *C. quercusfolii*, were as common as ever, but I was delighted to find a few *C. disticha* at Swithland Wood. This is quite a scarce gall, and the first VC55 record. Cutting through the gall revealed the double larval chamber inside. Nearby were a few *Andricus infectorius* galls (Fig. 5) - a new site in VC55 for this recent coloniser.

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Experiments with a Berlese Funnel

Trying to figure out what to call a Berlese (or Tullgren) Funnel takes more time than describing what it does. It is an apparatus for collecting microfauna from soil or leaf litter samples. The history is hard to pin down, but the earliest mention seems to be from Berlese (1905) and Tullgren (1917). It appears that Berlese was the first to describe the apparatus, using a water bath as a heater. Tullgren later simplified the overall arrangement by substituting an electric lamp as a source of heat. For now, I'm going to stick with "Berlese Funnel".

The general principle involves providing a funnel with a fine-mesh lid, an inner coarse mesh upon which the sample material is laid, and a slippery funnel leading to a receptacle with a liquid preserving agent. The use of a lamp to warm and dry the sample is an optional extra in these days of high energy costs, especially if you keep the apparatus in a warm, dry place. In my setup, I placed the apparatus in the greenhouse with a small lamp to dry the material (Fig. 1) and a tube filled with 100% Mono Propylene Glycol (MPG) to catch the microfauna. I'm a fan of MPG as it is a good preservative, slow to evaporate, non-toxic, preserves colours, and keeps specimens fairly supple. I found that most of the catch appeared after three days, and little ever appeared after a week.

For my experimental trial, all the material came from locations on the nature reserve at Rutland Water: So what did I find?

My favourite and a personal first was the Pseudoscorpion *Chthonius ischnocheles* (Common Chthonid), Fig. 2. It turned out that the keys to woodlice are quite easy to use so Figs 3 and 4 show the Common Pygmy Woodlouse *Trichoniscus pusillus* agg. and Common Striped Woodlouse *Philoscia muscorum*. All the by-catch was separated and logged and, thanks to Graham Finch, I have a list of the beetles too. Of note were *Ochthebius pusillus* with just one previous record in 1936, and *Dacrila fallax* with just three previous records, with the last Rutland Water record in 2021.

After this encouraging start I shall be expanding use of the Berlese Funnel in 2024.

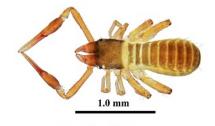
References

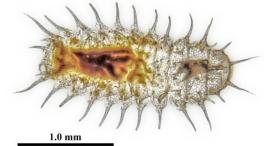
Berlese, A. 1905. Apparecchio Per Raccogliere Presto e in Gran Numero Piccoli Arthropodi. REDIA - *Journal of Zoology*, 85-89.

Tullgren, A. 1917. En Enkel Apprat För Automatiskt Vittjande Av Sällgods. *Entomologisk Tidskrift* **38**: 97-100. https://www.biodiversitylibrary.org/item/42375#page/124/m ode/1up.

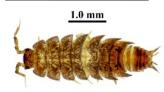


Fig. 1. Berlese Funnel set up in the greenhouse.









Figs 2-5, top to bottom: Pseudoscorpion *Chthonius ischnocheles*. Unknown Scale Insect, mobile stage. Common Striped Woodlouse *Philoscia muscorum*. Common Pygmy Woodlouse *Trichoniscus pusillus* agg.

Paul J. Palmer

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Looking for help?

The following are willing to act as an initial point of contact for providing advice and information to members.

Arachnids (Mites & Ticks):- Ivan Pedley, 48 Woodlands Drive, Groby, Leicester LE6 0BQ. 0116 287 6886. <u>ivan.pedley@gmail.com</u>

Arachnids (Opiliones, Harvestmen): - Ray Morris, see page 2.

Arachnids (Spiders):- Paul Palmer palmerpjp@gmail.com

Biological Recording:- LRERC; Room 400, County Hall, Glenfield LE3 8RA. 0116 3054108.

Chilopoda:- Helen Ikin, 237 Forest Road, Woodhouse, Woodhouse Eaves, Leics LE12 8TZ. 01509 890102. helen.canids@btinternet.com

Coleoptera:- Graham Finch, 14 Thorndale, Ibstock, Leics. LE67 6JT: finchgraham1@gmail.com

Collembola: Alan Cann, 17 Overdale Road, Leicester LE2 3YJ. <u>alan.cann@gmail.com</u> Online identification guides:

https://collembolla.blogspot.com/p/identificationguides.html

Diplopoda:- Helen Ikin (see Chilopoda).

Diptera (Some families):- Ray Morris (see page 2).

Diptera (Nematocera - Mosquitoes, Blackflies & Craneflies):- John Kramer, 31 Ash Tree Road, Oadby, Leicester LE2 5TE. 0116 271 6499. john.kramer@btinternet.com

Hymenoptera (Symphyta - Sawflies):- Dave Nicholls, 69-71 Church Lane, Ratby, LE6 0JF. davidnicholls125@gmail.com

Hymenoptera (Bumblebees):- vacant.

Hymenoptera (Other aculeates - Bees, Wasps & Ants):- Helen Ikin (see Chilopoda).

Hemiptera:- Alan Cann, 17 Overdale Road, Leicester LE2 3YJ. alan.cann@gmail.com

Sue Timms, 17 The Square, Bagworth, Leics. LE67 1DQ. sue.timms@clara.co.uk

Kate Nightingale, 12 Latimer Road, Cropston, Leics. LE7 7GN. kate.h.nightingale@gmail.com

Isopoda (Woodlice):- Helen Ikin (see Chilopoda).

Lepidoptera:- County Moth Recorder Team:- VC55CMR@gmail.com

Mecoptera, Neuroptera, Plecoptera: - Steve Woodward, see page 2.

Mollusca: - Dave Nicholls (see Hymenoptera (Symphyta)).

Odonata:- Ian Merrill i.merrill@btopenworld.com

Orthoptera:- Helen Ikin, see Chilopoda.

Psocoptera:- Helen Ikin, see Chilopoda.

Thysanoptera: - Ivan Pedley, see Arachnids - Mites.

Trichoptera (adults):- Ray Morris, see page 2.

2024 Indoor Meetings Programme

NB New venue for forthcoming meetings

Due to the closure of St Bart's Community Hall for repairs, the Committee has arranged an alternative venue for our forthcoming meetings in January, February and March. We hope to be back in St Bart's Community Hall in the autumn. We will be meeting in Leicester Forest East Parish Hall, 112 Kings Drive, Leicester Forest East, Leicester LE3 3JB (SK53350279). The Hall is sizeable, has good facilities, is easy to reach and there is lots of parking.

Please arrive promptly - we will be starting at 7 pm rather than 7.30 because our booking is shorter than our usual times.

Guests are welcome to join us at meetings.

- Friday January 19 Ivan Pedley Sardinian Arthropods
- Friday February 16 Sue Timms & Hazel Graves
 Mines and Galls
- Friday March 15 AGM & Members' Evening

Alan Cann Secretary