

## MOTH MUMBLINGS – LEAF-MINER UPDATE

I seem to have selected the worst year on record to ask you to record leaf-mines. Even the normally ubiquitous bramble leaf-miner (*Stigmella aurella*) is proving very hard to find. In spite of this, however, several people have been out looking and have sent me large numbers of leaf-filled plastic bags in the post. Thanks for this – I hope the rest of you will follow suit.

At this point I should add an ecological note – these plastic bags are all re-used time and time again by me and others, either for more leaves or, in some cases, for the food in my freezer! I do not throw away plastic of any kind. Note that although the blue/green bin collection people don't seem to like plastic bags, these CAN be recycled with carrier bags and many food wrappings in the larger supermarkets. Don't chuck plastic in the bin, please! It is not good for moths.

As we progress towards November, there are signs that things are improving – so maybe it is just a very late year? I hope this newsletter will motivate you to get out there!

Highlights amongst the mines so far recorded include *Bucculatrix ulmifoliae* (for pictures see <http://www.leafmines.co.uk/html/Lepidoptera/B.ulmifoliae.htm>), which I found in North Herts at Sandon and *Phyllonorycter pastorella* in the same general area (ticked off by John Chainey & Jenny Spence) as well as on the River Stort in the east of Hertfordshire (Bill Last). This latter species is likely to have spread across the county – look for a pucker mine on the underside of a leaf of long-leaved willows (crack, weeping etc) – those made by *pastorella* have a single, quite obvious longitudinal crease along the midline (good images at <http://www.leafmines.co.uk/html/Lepidoptera/P.pastorella.htm>). Another cracking good record was made by Chris Hilling at the Millhoppers Pastures nature reserve – about as far west as it is possible to get in Herts without crossing the Atlantic. Leaves of Alder Buckthorn collected by him had mines and the associated feeding windows made by *Bucculatrix frangutella*. Our existing recent records (apart from a stray adult in Rachel Terry's garden light trap in Barnet a few years ago), are all confined to the extreme north edge of Hertfordshire along the border with Cambridgeshire and Bedfordshire, from Royston in the east and as far as Hitchin in the west. The Millhoppers record is expected and lies on the westwards continuation of that line of records. If anyone can look for it at places like Pirton, Hexton Chalk Pit and further west at Kensworth and the Herts portion of Dunstable Downs that would be helpful. It is ONLY found on Alder Buckthorn (*Frangula alnus*) and that plant is evidently restricted to chalk geology. I would be amazed (and very happy) if anyone made a *reliable* record from Middlesex (there is an old 1960s report from Buckingham Palace Garden and that's the lot). For pictures, check out <http://www.leafmines.co.uk/html/Lepidoptera/B.frangutella.htm>

## A CORRECTION

Sorry – I seem to have lied. You would think with a surname like mine I should have mastered the basics of botany after all these years, but no – I have bumbled my Buckthorns. The micro *Bucculatrix frangutella* mines leaves of Purging Buckthorn (= Common Buckthorn = *Rhamnus catharticus*) as well as Alder Buckthorn (*Frangula alnus*) and many reports from the north-east of Herts are of mines on THIS plant. Further – it is *Rhamnus catharticus* that is mostly restricted to the chalk whilst, I am advised, *F. alnus* is often on more acid soils. Thanks to John Chainey for pointing this out.

I think everything else was correct? No doubt some clever person will tell me if it is not.

Please look for this species of moth on BOTH species of buckthorn.

My list of target map tetrads is repeated below. Twelve points are awarded to Liz Goodyear who just finished a nine and a half mile walk in one such area! I have yet to look at the collected leaves but as this was a blank tetrad then ALL species will be useful additions to the database. Shorter walks are permissible!

## HOW TO COLLECT LEAF-MINES (REPEATED FROM LAST ISSUE)

If you can name the species with complete confidence, this next bit is not for you – just send me the records. For the rest of you ...

Don't name stuff in the field. **Collect and check later.** You can tip unwanted leaves under a hedge somewhere – the larvae within will take no harm. Leaves sent to me will also be tipped out in this manner (unless retained for breeding adults).

Try to collect a small bunch of leaves on a short section of stem rather than just the individual leaf containing the mine.

Some tunnels may start or finish in the leaf stem and picking just the leaf means this cannot be seen.

Collect leaves into clear plastic bags and remember to label the bag (see below).

If the leaf is wet/damp GENTLY dry with a soft tissue and allow to air-dry for a minute (don't squash the caterpillar within, I may need it alive for correct identification).

Now, unless it is oak or something else blindingly obvious, write the plant name on the leaf with a **ball point pen**, taking care not to obscure any part of the mine with the label). Many plants will be obvious, but differences between apple, various species of *Prunus* and willow, for example, can be hard to spot on a single leaf! If in doubt, please label it.

Now, before they dry out, put all the labelled leaves from a single site on a single date into a single plastic sandwich bag and add a paper label bearing:

- Place name;
- If known a 4-figure grid reference, but this is not essential if the place name is on the O.S. map;
- Collection date; • Your name as collector.

Ideally use a pencil for the main label – survives condensation better than biro.

Now put this and any others in a padded envelope and post to me in the ordinary mail, making sure that if you want me to send you a list of what is there you have included a contact e-mail (or postal address). No contact details – no list!

### TARGET TETRADES FOR LEAF-MINER HUNTING SEPTEMBER – NOVEMBER 2021 (REPEATED FROM LAST ISSUE)

Middlesex is generally covered rather poorly, so all records from all areas are wanted. Unsurprisingly, the somewhat more rural county of Hertfordshire has far better coverage. The north-east is very well-covered (guess where I live!), but even here there are several blank tetrads (all of which I am intent on visiting in the next few weeks).

I still want all leaf mines (or lists) from **ALL** areas of Hertfordshire, but I have made a selection here of those map tetrads of Hertfordshire (VC20) with very few or zero records. This is not a complete list – it is a list of target tetrads spread across the whole county so that everyone should have a place to visit relatively near to them.

Of course, not everyone has a car. If you can only walk to record, then start with your garden and work outwards to the neighbouring gardens, the local park/cemetery and so on. Cemeteries in particular may be productive as they may have a variety of ornamental plants

#### What is a map tetrad?

Tetrads are 2km x 2km map squares, defined by their south-west corner on the O.S. map. They are referred to numerically or alphanumerically. So, the bottom left tetrad of ten-kilometres map square TL42 is defined at TLT00 or TLA, depending on which system you prefer. That in the top right corner is TL42T88 or TL42Z.

If still unclear, look in in *Larger Moths of the London Area* (pages xiv & xv) and/or *The Moths of Hertfordshire*, page 45 – in both works there is a hopefully clear diagram/drawing. To buy a copy of the Herts Moth Book at rock-bottom price go to <https://www.hertsmothgroup.org.uk/index.php>.

Within the selected tetrad please visit sites and label samples in the usual way – just use the list below to get you to an unrecorded area of the map.

EVERY RECORD COUNTS. Many of these target map tetrads that still do not have a record for the ubiquitous bramble leaf-miner – yet most of us will be able to find this species easily wherever there are brambles.

#### **TARGETS FOR 2021 LEAF-MINE SURVEY 10Km square TL00**

tetrad 00T00 = 00A ... which contains ... Flaunden

tetrad 00T04 = 00C... which contains ... Hanging Wood, north of Bovington

tetrad 00T06 = 00D ... which contains ... eastern edge of Berkhamsted including Grand Union Canal

tetrad 00T22 = 00G... which contains ... Bulstrode **10Km square TL10**

Tetrad 10T60 = 10Q... which contains ... Radlett Golf Course

Tetrad 10T80 = 10V... which contains ... Shenley & Combe Wood

tetrad 10T62 = 10R... which contains ... Broad Colney & southern London Colney tetrad

10T82 = 10W... which contains ... Bell Roundabout (M25 junction 22)

#### **10Km square TL11**

tetrad 11T66 = 11T... which contains ... Blackmore End tetrad

11T68 = 11U... which contains ... Kimpton tetrad 11T86

= 11Y... which contains ... Ayot St Lawrence

tetrad 11T88 = 11Z... which contains ... southern bit of Hoo Park and along the Kimpton Road

#### **10Km square TL21**

tetrad 21T00 = 21A... which contains ... south of Lemsford & east of Symondshyde Great Wood

tetrad 21T02 = 21B... which contains ... Brocket Park tetrad 21T04 = 21C... which contains ...

Ayot St Peter tetrad 21T06 = 21D... which contains ... south-west of Codicote tetrad 21T08

= 21E... which contains ... Codicote

#### **10Km square TL22**

tetrad 22T46 = 22N... which contains ... northern Stevenage tetrad

22T48 = 22P... which contains ... Damask Green; Howe Wood tetrad

22T68 = 22U... which contains ... Weston Park & Warrens Green

tetrad 22T84 = 22X... which contains ... Bennington Lordship tetrad

22T86 = 22Y... which contains ... north half of Walkern tetrad 22T88

= 22Z... which contains ... Cromer, Luffenhall

**10Km square TL32** tetrad 32T04 = 32... which contains ... Clay

End & Bassus Green

#### **10Km square TQ29**

tetrad 29T06 = 29D... which contains ... eastern Borehamwood & Rowley Green

tetrad 29T08 = 29E... which contains ... Well End tetrad 29T24 = 29H... which

contains ... Arkley, Totteridge Park tetrad 29T26 = 29I... which contains ...

western Barnet (part in Middlesex)

When I say “**all**” I really do mean “**all**”. Many species of fly, sawfly, beetle and some other groups may mine leaves; you don’t need to be able to identify these, but please do collect them and get them to me for naming.

**If in doubt, bag it up and get it to me.**

## **RECENT NON LEAF-MINER MOTH REPORTS**

I am getting mixed messages. Some people are becoming almost as depressed as the numbers of moths they are catching; others are getting moths, but noting that many expected species missing. For example, I have yet to see **Large Ranunculus** (*Polymixis flavicincta*) or **Red-line Quaker** (*Agrochola lota*) this year, but others are catching them, it seems. An over-riding theme, however, seems to be incredibly low numbers of almost every species encountered. All I can say is that this fully justifies my request to record nightly numbers, not just species, wherever you can; without these data any longer term analyses are likely to be impossible.

The **November Moth** (*Epirrita dilutata*) has been on the wing for the past week. So far there are no reports of the equally common and widespread **Pale November Moth** (*Epirrita christyi*) – please do remember that these two cannot be separated by eye and it is essential to examine the tip of the male abdomen. With practice, this can be done alive (before you start, take a look at [https://mothdissection.co.uk/species.php?Tx=Epirrita\\_dilutata](https://mothdissection.co.uk/species.php?Tx=Epirrita_dilutata) and also the next species). If in doubt send the moth to me for checking (if sending live moths always label the inner package appropriately – many is the time I have opened a box to have a moth make a bid for freedom!

Followers of our Facebook page will know that Simon Buckingham caught a **Pale-lemon Sallow** (*Cirrhia ocellaris*) at Maple Lodge, in the far south-west of Hertfordshire, in the Colne Valley, about a week ago. I went looking for it with Graeme Smith a few days later at a poplar-dominated woodland near Sandon in the north-east of the county, but failed miserably. In fact there were very few moths at all, though we did manage a couple of **Clifden Nonpareil** (*Catocala fraxini*) which are clearly still flying. It is highly probable that they are breeding at this site, though we have yet to prove it.

Interestingly (worryingly?) there are already reports of the **Sprawler** (*Asteroscopus sphinx*) and even **December Moth** (*Poecilocampa populi*) – though both are from outside our area. Next thing you know we will be catching **Common Quakers** (*Orthosia cerasi*) by xmas!

On the micro front, two particularly interesting examples are worth a mention. A moth caught by Gerry Rawcliffe at Muswell Hill, Middlesex in June MIGHT be a male of the bagworm *Dahlia triquetrella*. This species is 99% parthenogenetic and the sexual generation is very rare indeed, regarded as a glacial relict and mostly confined to Switzerland, Germany and Austria. Recognition is very tricky and involves measuring various bits of the genitalia and comparing the ratios of one to another. Unsurprisingly, given its status, I have no experience of this species (as the sexual generation) and I may well be proved wrong. I have sent one of its legs to Mark Stirling who will organise DNA bar-coding (via the Natural History Museum) to resolve the matter.

The second micro of interest was taken at a garden in Willesden, Middlesex in early July with another example at Walpole Park in Ealing, Middlesex a week later, both by Barbara Mulligan. With a wing length of 5mm it has narrow and extremely pointed, transparent hind-wings, but with the veins adorned with black scales. Also of interest is that the antennae are “hairy” – bearing very long cilia (4 or 5 times as long as the width of the antenna) on the lower surface. I have no idea what this moth is – I cannot even assign it to a family! A photo was circulated to the great and the good, both in Britain and in Europe, but interestingly nobody else can name it either, so at least I am not alone! The last time this type of situation occurred in Middlesex the result was a completely new species (*Prays peregrina*) being described by David Agassiz, so as you can imagine I am trying to sort this current situation out! Peter Hall, who maintains the web site at <https://mothdissection.co.uk/> and who is noted for his high quality moth genitalia images has agreed to dissect the genitalia for me (I am reluctant to do this one myself as I usually muck up the good ones), so this might provide a lead. Additionally, Mark Stirling has taken a leg of one of the two specimens, in addition to the psychid mentioned above, for DNA bar-coding. Hopefully we will have some sort of answer in about 4 – 6 weeks. Watch this space!

Apologies to anyone whose records are not mentioned here; these are just a few highlights.

Happy mothing – the season ain't over yet!

Colin

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