LEAFMINES NEWSLETTER



Recent additions to the host plant list



The host plant list for British leafminers of Pitkin and Plant is maintained on both the leafmine site (www.ukflymines.co.uk). If a host plant is not listed on these websites you may assume that it will be new to the UK.

We need proof that the addition is correct. It may be possible from photographic evidence or it may need breeding through to determine whether the identity is correct.

It may need DNA analysis before a new host plant is added as Ian Barton and Kathleen Rosewarne found when they discovered *Phyllonorycter* mines on *Chaenomeles japonica*. The species was unclear even when he bred the moths out and performed a genitalia dissection. Subsequent DNA analysis indicated that the species was *Phyllonorycter sorbi* and a new host plant for this species was added to the list. (Barton & Rosewarne, Entomologist's Rec J Var (2014) 126, 93-96).

The following recent new additions are illustrated.

Phyllonorycter leucographella (Lep:Lithocolletinae) on Elm (Ulmus)



Steve Hind writes 'I found this *Phyllonorycter leucographella* mine on Elm on 26.x.2014 in Hyde Park, Hyde, Cheshire, VC58, which may be a new food plant. The small Elm, about two feet tall, was growing through a *Pyracantha* bush and the mined leaf was amongst those of the *Pyracantha*, so I guess the female moth was easily confused when laying the egg.'

Photo © Steve Hind

Coleophora albitarsella (Lep: Coleophoridae) on Salvia

On 07.vii.2014 **Stewart Wright** found 40+ cases of *Coleophora albitarsella* feeding on *Salvia africana azurea* in his garden in Norfolk. A new host plant for this species.



Photo © Stewart Wright

Agromya abiens or ferruginosa (Dip:Agromyzidae)?

The difficulty of determining a new host record is illustrated by the mines found by Colin Plant on 11.ix.2014 in Friern Barnet, Middlesex, VC 21. They were on Russian Comfrey (Symphytum uplandicum):



Colin writes the photo 'shows an initial gallery which, after the first moult, forms a full-depth false blotch as shown, which turns brown with age, and tending to consume the initial gallery.

Measured as a straight line with a ruler, the mine covers an overall distance of 75 mm (though if straightened out this would be more). The eggs are said to be laid singly on the underside and separate mines usually coalesce.

The mine illustrated contains only a single larva, which was still feeding on the collection date. There may be confusion with mines of *Agromyza abiens*, in which the initial gallery tends to remain visible (and the form of the mine is slightly different).'



The larva can be seen (bottom left) and in more detail below:



Photos © Colin Plant

Looking closely at the mine CP stated 'there is evidence of 4 larvae (3 exit holes and one living larva), but I can see no evidence to suggest either a single-larva or a 4-larva initial gallery.' (The larvae of *A. ferruginosa* mine as a group to form the initial gallery.)

Willem Ellis clarified this by saying 'Agromyzidae, like Lyonetia, have an ovipositor and insert their eggs into the leaf tissue. The eggs shell is flimsy, so, all you can see at best is an indication of a cavity, and/or a swelling above, like in this picture:

http://www.bladmineerders.nl/minersf/dipteramin/agromyza/ferruginosa/ferruginosa.htm

(that admittedly was taken from a neat, fresh mine).

Because you wrote about some five larvae, and I see no trace of separate beginning, I am, like you, inclined to think of *ferruginosa*. But a picture often tells a lot less than the real thing.

The frass pattern does not give much information: more or less all *Boraginaceae*-feeders show this pattern, it must be the plant's influence.'

The consensus is that it is probably *A.ferruginosa* (on a new host plant for the UK), but that the adult fly needed rearing through to be certain of the identification and hence inclusion on the host plant list. The larva has pupated and hopefully an adult will emerge to confirm the identity of this leaf miner.

Changes to the website

The leafmine website has just entered its 12th year and has grown markedly in size since then. The number of species with photographs has almost doubled to around 550 and the size of the site has increased over tenfold, from under 40Mb to 425Mb.

The advent of the new Lepidoptera checklist from Agassiz, Beavan & Heckford (ABH) has provided the stimulus to update the site.

Besides updating the navigation bar, to include a 'news' section' we also have new sponsorship from Colin Plant (Colin Plant Associates (UK) LLP/ Entomological Consultants. We are very grateful for his sponsorship of the website, which assures its future for some years.

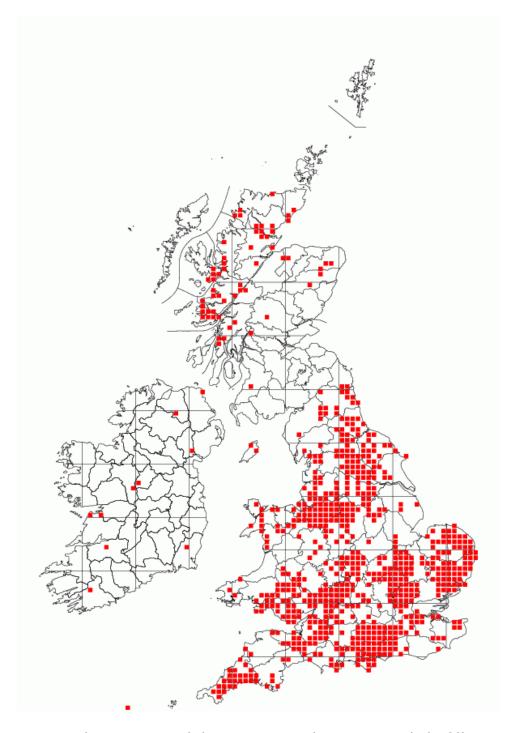
The scientific names on the website are being italicized and links put in each page linking the species to its host plant. Links to the NBN Gateway are also being updated.

It is in the Lepidoptera section that the most changes are being effected. Each species is being renumbered in line with the new ABH system and the name updated where necessary. The initial page for each species has the Bradley Number included and also the current status from Davis (2012) 'The Status of Microlepidoptera in Britain'.

With several thousand pages to update the task is taking a long time (and continues!).



Thanks to all those who send in their records to the scheme. It is much appreciated and enables mapping of the leaf-miner species. An example of this is the common leaf-miner of Hazel, *Phyllonorycter nicellii*



You can see gaps in the coverage of this species. Perhaps you can help fill in some gaps?

It is important to submit records to your County Moth Recorder and the details of these are here: http://mothscount.org/text/57/county_moth_recorders.html

You can send records to me via Mapmate - my cuk is 1rx or via an Excel spreadsheet. I can send you a template, or further details are available from the website: http://www.leafmines.co.uk/html/nlls.htm

Two, recently discovered species, are now included in the leaf-miner filter on Mapmate and were included in their recent updates:

Phyllocnistis citrella Bucculatrix chrysanthemella

I look forward to receiving your records.

Prays oleae will be included in a future Mapmate update.

For the present please continue to send in your records using the Bradley system. Once the ABH system is incorporated into Mapmate I will be able to accept records in this new format.