LEAFMINES NEWSLETTER

Newsletter 26
Date: April 2013

Garden centre leafmines: Perhaps check plants at your local garden centre as some unusual leaf miners are being found, as the three following examples illustrate:

Phyllocnistis citrella (Stainton,1856) Lep: Phyllocnistinae – bred for the first time in the UK

Photos © Robert Homan

Phyllocnistis citrella (Stainton, 1856) is a lepidopterous pest of Citrus trees in Europe and has now been bred through by **Robert Homan.**

He found the characteristic 'snail trail' mines on the leaf surfaces, which were tenanted, on a lemon tree at a garden centre in Burford, Oxfordshire on the 7th October 2012 and bred them through.

The moth, which emerged later that month is illustrated opposite and is the first record of breeding of this species in the UK.

Infested Citrus trees are normally intercepted at the port of entry to the UK

Further details : Entomologist's Rec J Var (124) 2012 :279-281

Further records of *Prays oleae* (Bernard,1788) Lep: Praydinae – a leaf miner of Olive trees

Stephen Rolls has found mines of *Prays oleae* (Bernard, 1788) at local nurseries, in Essex, in 2012 and 2013.

This leaf miner was first discovered in the UK in 2009 from Addlestone, Surrey.

It is a pest species of Olives in the Mediterranean and is now being found in the South of England – perhaps due to the increased popularity of Olives as garden plants but also due to awareness of this miner.

Stephen recorded the leaf miner from Rayne in May 2012. The top photo shows the twisted feeding galleries, with the photo below showing the grazing by the larva after it has exited the mine.

Photos © Stephen Rolls

He successfully bred the moth which emerged on 23rd May 2012.

In January 2013 further mines were found by Stephen at a tree nursery in Marks Tey (see photo opposite).

It could be worth checking Olive trees at your local garden centre for the presence of this leaf miner

Bucculatrix chrysanthemella Rebel, 1896, Lep: Bucculatricidae – new to Britain

Rachel Terry discovered an adult of *Bucculatrix chrysanthemella* Rebel, 1896, whilst looking though moth trap material from 2009. This was a first record for Britain.

It is a native of the Canary Islands and mines the leaves of Marguerite Daisy (*Argyranthemum frutescens*) and Canary Tansy (*Gonospermum fruticosum*).

It is worth checking these plants, which can be imported, at your local garden for the mines. They are initially linear and then enlarge, ultimately occupying the leaf lobe.

The mines are illustrated in the article below.

Further details : Entomologist's Rec J Var (124) 2012: 59–63.

Phytomyza hellebori Kaltenbach, 1872 Dip: Agromyzidae – new to Wales?

Since its discovery in 2000 P.hellebori, a leaf miner of *Helleborus foetidus*, has been slowly colonizing the South East of England.

George Tordoff discovered this miner on 3rd February 2013 saying 'I found abundant P hellebori mines at Dyffryn Gardens, Glamorgan.'

This may represent the first record of P.hellebori for Wales and also a significant expansion of its range.

Photo ©George Tordoff

www.bladmineerders.be – Leafminers of Belgium, a new website

A new leaf miner website from Belgium, has just been launched, designed and run by Steve Wullaert.

He says 'After more than 3 years of work it is finally there! Hopefully we can give you an informative site where all the mining moths from our country are fully described.
Tips, remarks or additions are always welcome.'

Initially the site is in Dutch and is very well illustrated.

Steve says that the site is still under construction and tha changes will occur. He welcomes feedback and suggestions for the site. His contact details are on the site.

The Belgian leafminers are very active and I wish them well with this new venture.

Acrolepia autumnitella (Curtis,1838) **Lep: Yponomeutinae – new Host Plants**

Steve McWilliam found mines of *A.autumnitella* on cultivated Potato (*Solanum tuberosum*) – (Pink Fir Apple) in a back-garden in Runcorn, Cheshire on the 28.vii.2011 and 01.viii.2011. The mines on Potato are illustrated above.

He says that 'Bittersweet (*Solanum dulcamara*) grows nearby in a shady patio area at the side of the house and I have had this species mining that for approx the last 5 years – the adults have been bred out. Two years ago it began to mine Tomato (*Solanum lycopersicum)* leaves on plants close by – again bred out.

Although *A.autumnitella* mines Bittersweet, these observations represent the first records of this moth being bred from other members of the Solanaceae.

Photo © Steve McWilliam

Mompha terminella (Humphreys & Westwood, 1845) Lep: Momphidae – a new Host Plant

Photo © Jenny Seawright

On 04.ix.2011 Jenny Seawright found leaf mines, illustrated above, on Broad-leaved Willowherb,(*Epilobium montanum*) in a garden in Gortnamona, Ballingeary, Macroom, Co. Cork, Ireland.

She was unsure of the identity of the leaf miners and so posted pictures on the ukleafminers yahoo group. They were identified by John Langmaid and Sjaak Koster as those of *Mompha terminella*.

In the UK *M.terminella* is known as a leaf miner of Circaea lutetiana (Enchanter's Nightshade) and so this represents a new food plant for this moth.

Scolioneura betuleti (Klug, 1816) and *S. vicina* (Konow, 1894) Hym: Tenthredinidae – a case for synonymy?

These leaf mining sawflies of Birch have been regarded as separate species because of their apparently different phenology, with S.*vicina* being an early season miner and *S.betuleti* a late season one.

Mitochondrial and nuclear DNA analyses of the larvae of both species have shown that the sequences studied are mixed together in a single cluster, indicating that they may be synonymous, as already suggested by MacQuarrie (2007). Alternatively, the authors note that this could represent a case of speciation driven by differences in phenology (=allochronic speciation), but the problem is that, with the molecular data at hand, a firm decision on their species status is not possible

Further details: Sanna A. Leppänen, Ewald Altenhofer , Andrew D. Liston , Tommi Nyman (2012) Phylogenetics and evolution of host-plant use in leaf-mining sawflies (Hymenoptera: Tenthredinidae: Heterarthrinae). Molecular Phylogenetics and Evolution (64) 331-341

MacQuarrie, C.J.K., Langor, D.W., Sperling, F.A.H., (2007).
Mitochondrial DNA variation in two invasive birch leaf-mining sawflies in north America.
Can. Entomol. 139, 545-553.

A new host plant for *Agromyza frontella* (Rondani, 1875) Dip: Agromyzidae

This Agromyzid leaf miner has previously been recorded in Britain on *Melilotus* and *Medicago.*

By coincidence both Melissa Banthorpe and Rob Edmunds discovered it independently, and on the same day, as a leaf miner of Trifolium pratense (Red Clover) on 04.ix.2011.

MB discovered it in Maulden Wood, Bedfordshire and RE in Downham Market, Norfolk.

Although *T.pratense* is known as a host plant for *A.frontella* in Europe, these observations constitute the first record in the UK.

Further details : Entomologist's Rec J Var (125) 2013 :72-73

Photo © Andy Banthorpe

A leaf miner to look out for this season - *Phyllonorycter issikii* (Kumata, 1963)

This miner of Lime trees has been spreading through northern Europe but has yet to be found in the UK.

It makes mines on the lower surface of the leaves and is illustrated here:
http://leafmines.co.uk/html/Lepidoptera/P.issikii.htm

It has recently been discovered in the Netherlands and Belgium and the stages, invcluding adukt moths, are illustrated here:
http://www.bladmineerders.be/nl/content/phyllonorycter-medicaginella-gerasimov-1930

Will it appear in the UK in 2013?

Ostrya carpinifolia (Hop Hornbeam) – a new host plant

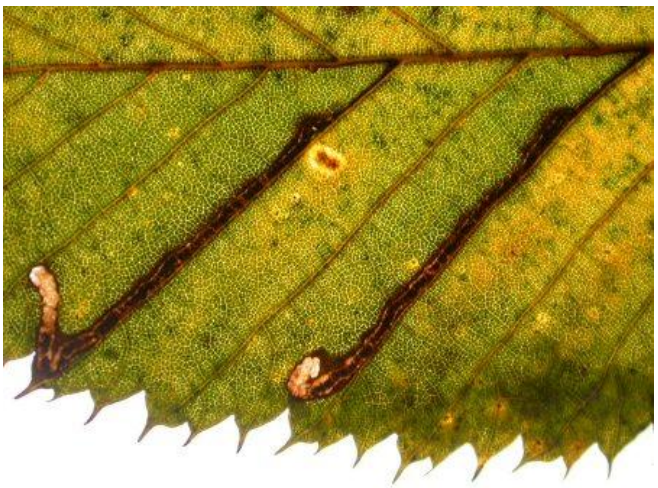
Stewart Wright collected mines on *Ostrya carpinifolia* at Hoveton Hall Gardens, Norfolk on 16.xi.2012.

This was a new host plant in the UK.

The mines were identified by Erik van Nieukerken as *Stigmella microtheriella*.

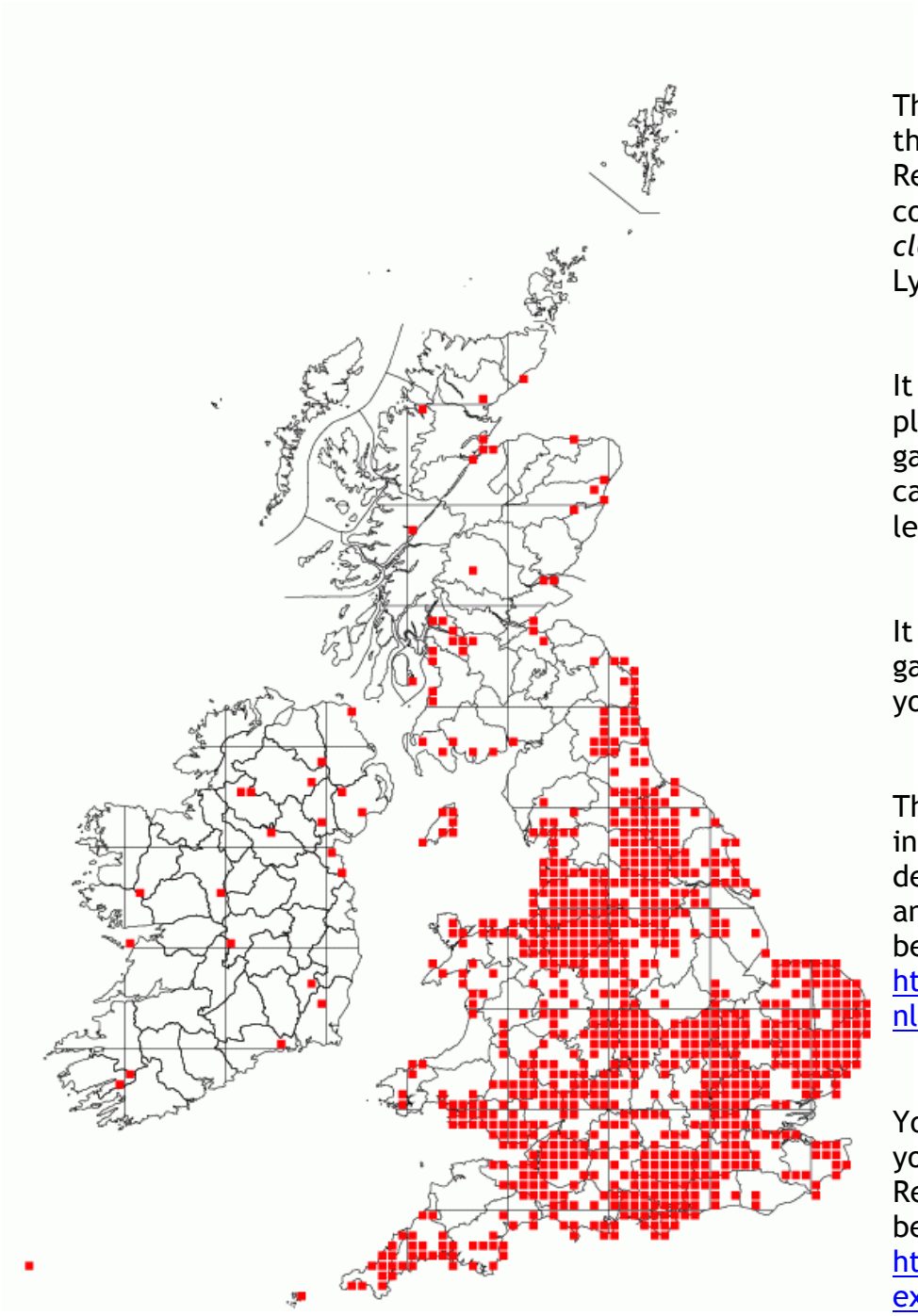
They were very variable on this host but the gallery generally followed a vein, as shown in the photographs, which is a feature of this leaf miner on this host plant.

Interestingly Stewart also found a vacated Phyllonorycter mine on a leaf – a follow up visit is needed in 2013!



Photos © Rob Edmunds

Leaf mining Moth Recording Scheme – can you help fill in some gaps?



This is a current map, from the leaf mining Moth Recording Scheme of a common leaf miner - *Lyonetia clerkella* (Linnaeus, 1758) Lep: Lyonetiidae.

It is found on many Rosaceous plants and its twisting long galleries characteristically cause some browning of the leaf.

It can be seen that there are gaps in its distribution. Can you help fill those gaps?

There are over 300 leaf miners in the Recording Scheme and details of the species involved and how to submit records can be found here: http://leafmines.co.uk/html/nlls.htm

Your records are welcome at your local County Moth Recorder – with contact details below: http://www.mothscount.org/text/57/county_moth_recorders.html