

## LEAF MINING ORGANISMS NOT PREVIOUSLY RECORDED ON THE IOW

**DR. D.T. Biggs.**

Since the publication of the last list of *Newly Found Leaf Miners* (Biggs, 2007) only three new species have been found, all flies, two AGROMYZIDS and one ANTHOMYIID,

### **DIPTERA:**

#### **AGROMYZIDAE**

*Liriomyza sonchi* Hendel 1971\_on Nipplewort, *Lapsana communis*.

On 13.8.2006 Bill Shepard and I were walking over Brighstone Down when we came across a plant of Nipplewort at SZ524284 which had two of its leaves very obviously mined. One leaf had five mines, the second had two. Each mine was an upper surface blotch, roughly rectangular, measuring 15 mm x 10 mm, and grey in appearance due to the larval feeding lines. Further examination later showed that the mines began with a short broad corridor which was later incorporated into the blotch and only discernable with difficulty. The black frass was rather sparse. This fly pupates externally and the larva mines between May and August in two generations. It is more often found on Sow-thistle *Sonchus spp.* In England it is considered to be widespread, at least in the south. It is known to be widespread and common in much of Europe, extending eastwards to Central Asia.

*Phytomyza anemones* Hering 1925\_on Wood Anemone *Anemone nemorosa*

I found a leaf mine which I could not identify on 23.5.2006 in Briddlesford Copse SZ525490 on Wood Anemone. It was an apparent blotch mine measuring 15mm x 5mm, pale brown in colour, in the apex of a segment of a leaf. It was either deep upper-surface or full depth, with the larval feeding lines obvious, a larva present and with black washy frass. Hand lens observation revealed that the apparent blotch was in fact formed of a corridor mine with many close visceral turns forming a secondary blotch. I sent the mine to John Robbins who identified the cause of this mine for me. The larva is known to mine in May and the adult fly appears as a single generation at the end of April. It had previously been reported from Sussex and Gloucestershire, and is considered to be local only. In Europe it is described as local but not uncommon, in central and northern Europe and in Scandinavia .

#### **ANTHOMYIIDAE**

*Pegomya hyoscyami* Panzer 1809 *sensu stricto* on Thorn-apple *Datura stramonium*

Sue Blackwell found a large pale-brown upper-surface blotch mine on a leaf of Thorn-apple growing in Marvel Lane, Newport, SZ5011869 on 15.8.2006 Closer examination showed the blotch to measure 55mm x 15 to be almost completely confined between two adjacent veins and to contain very obvious washy greenish-black frass. An empty eggshell was visible on the upper surface of the leaf. This fly larva mines *Atropa*, *Hyoscyamus* and *Solanum* in Great Britain and other Solanaceous genera abroad. The larva mine between May and September in two generations and pupate externally. What is now considered *Pegomya hyoscyami* in the strict sense is one of four species which now make up the old *P.hyoscyami* complex. One of the other species is *P.betae* and there are previous Island records for this, a pest of Spinach and Beet.

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### References

- Biggs D.T. 2007 Leaf Mining organisms not previously recorded on the Isle of Wight . *Proc. Isle of Wight Natural History & Archaeological Society* 22:
- Chandler. P.1998 Check lists of Insects of the British Isles (New Series) Part 1 Diptera . *Handbooks for the Identification of British Insects, Vol 12*. Royal Entomological Society.
- Hering. E. 1957 *Bestimmungstabellen der Blattminen von Europa* Uitgeverij Dr. W. Junk, S-Gravenhage, Netherlands
- Michellen.V. 1980 *A Revision of the Beet Leaf-miner Complex Pegomya hyoscyami s.lat. Diptera, Anthomyiidae* Entomologica Scandinavica 11:297-309. Lund, Sweden.
- Robbins. J. 1991 *The Leaf Miners of Warwickshire* : Warwickshire Biological Records Centre.
- Spencer. K.A. 1972 *Diptera Agromyzidae. Handbooks for the Identification of British Insects, Vol X .Part 5(g)* Royal Entomological Society.
- Spencer. K.A. 1976 The Agromyzidae (Diptera) of Fennoscandia and Denmark. *Fauna Entomologica Scandinavica Vol5*, Scandinavian Science Press Ltd. Klampenborg, Denmark.
- Telfer. D. 1954 A Provisional List of Diptera of Isle of Wight *Proc. Isle of Wight Natural History Archaeological Society. 12:.*37-50
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