



Observations on the life cycle of *Perritia obscurpunctella* (Stainton, 1848) – Lep: *Elachistidae*

Carina Van Steenwinkel writes 'In 2014 I collected leafmines at three different locations - one in Dessel (25.v.2014) and two (28/v/2014 and 31/v/2014) in Mol (Antwerpen), Belgium. They were all on *Lonicera periclymenum* (Honeysuckle) growing in the undergrowth of other tree species (mainly *Pinus sylvestris* (Scots Pine), *Quercus robur* (Oak) and *Scorbus aucuparia* (Rowan)).

These are my observations on breeding them.

The mines were occupied by two, three or four larvae. The mine below was photographed on 29.v.2014 from the mines collected at Dessel



Where leaves were occupied by three or four larvae, these larvae left their leaves and fed in further leaves until they reached maturity. A total of two or three leaves were mined.

When the larva bores into a leaf, to start a new mine, or into a dry leaf where pupation takes place, it seems it doing so lying on his back, ventral surface uppermost. If you take a good look at the photo below (02.vi.2014), one pair of thoracic feet and the prolegs are visible on the part of the larva that protrudes the mine (= larva in ventral view).



All references for this species state that pupation occurs outside the mine, on the bark.

In 2013 I tried to breed through a few larvae. I had placed twigs of *Lonicera* and one or two green leaves of the host plant on the bottom of the pots. These larvae did not use the twigs or leaves and pupation happened without making cocoons, loose on the bottom. I suspect this isn't the optimal condition for the larvae to pupate. In some cases the larva wasn't able to complete ecdysis and the pupa dried out faster. I wasn't able to breed out the few pupae I had - only three in 2013.

In 2014 I took different approach to breeding them. When I expected the larvae would leave the mine to pupate, I put a layer of dry litter on the bottom of the pots. For the dry litter: I used dry brown leaves of *Betula pendula* (Birch), *Acer campestre* (Field Maple), *Fagus sylvatica* (Beech) and twigs and leaves of *Lonicera periclymenum* 'Belgica' (Honeysuckle).

The pupation takes place inside the leaf and the larva bores into dry leaf. They all preferred the skeletonised, thin leaves of *Fagus sylvatica*. There was no pupation observed in the other leaves - these leaves were thicker, less decayed. I suspect in normal conditions they use other leaves, perhaps decayed Oak leaves.

In both years (2013-2014) when the larvae left the mine and there was no dry litter available, the larva pupated without making a cocoon, loose on the bottom of the pot.

The photograph shows a larva boring into a dry leaf to pupate on 06.vi.2014, from mines collected in Dessel:



Mostly the cocoons are hidden well, difficult to detect in the dry leaf

A leaf is shown (underside (top photo) and upper side (bottom photo) with positions of cocoons indicated. The leaf was photographed 07.xii.2014. The larvae had entered the leaf 06.vi.2014.



The development of the cocoon inside a dry leaf can be seen in the photo (taken 06.vi.2014) below from mines collected in Dessel



Photos © Carina Van Steenwinkel

There may be several cocoons formed in a leaf. The photo was taken 06.vi.2014 from mines collected in Dessel



The leaves containing the cocoons are being overwintered in a refrigerator at 5°C. Hopefully imagines will emerge next spring.'

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News from Belgium: www.bladmineerders.be

Steve Wullaert writes:

Bucculatrix cidarella:

This species has never been found before on the mainland on *Myrica gale*! But with a good search it was found in high numbers- even more than on *Alnus glutinosa*!) (It was first found by Zoë Vanstraelen)

<http://www.bladmineerders.be/nl/content/bucculatrix-cidarella-zeller-1839>

Coleophora cornutella:

After more than 30 years this species has been found again in Belgium! Four cases in total! Two on Birch (*Betula pubescens*) and two on Bog Myrtle (*Myrica gale*) (Found by Zoë Vanstraelen and myself)

<http://www.bladmineerders.be/nl/content/coleophora-cornutella-herrich-sch%C3%A4ffer-1861>

Bucculatrix ainsliella:

This species was found in high numbers this year! A lot more than last year!! On almost every leaf (*Quercus rubra*) we turned over there were white cocoons!) (Found by our leafmining workgroup)

<http://www.bladmineerders.be/nl/content/bucculatrix-ainsliella-murtfeldt-1905>

Ectoedemia arcuatella:

This very rare species was found again, in the same place as last year. Three mines were found on Wild Strawberry (*Fragaria vesca*) in Durbuy

<http://www.bladmineerders.be/nl/content/ectoedemia-arcuatella-herrich-sch%C3%A4ffer-1855>

Coleophora conspicuella:

This very rare species was found again after more than 30 years of absence in Belgium!! We found about twelve cases on Brown Knapweed (*Centaurea jacea*) in Durbuy

<http://www.bladmineerders.be/nl/content/coleophora-conspicuella-zeller-1849>

***Perritia obscurpunctella*:**

For this species we found numerous mines! First it was found by Carina Van Steenwinkel and after that we found them in several places throughout Belgium

<http://www.bladmineerders.be/nl/content/perittia-obscurepunctella-stainton-1848>

***Lyonetia prunifoliella*:**

In 2014 this species was more abundant than in previous years! We found sometimes over 50 mines in one place!

<http://www.bladmineerders.be/nl/content/lyonetia-prunifoliella-h%C3%BCbner-1796>

***Coleophora discordella*:**

This species we found very numerous in 2014, sometimes more than 50 cases were found on Bird's Foot Trefoil (*Lotus corniculatus*)

<http://www.bladmineerders.be/nl/content/coleophora-discordella-zeller-1849>

***Phyllonorycter coryli*:**

Phyllonorycter coryli was found in very high numbers in 2014! At some places we could easily find over 1000 mines! Some trees were almost white from the mines on it! We even found mines on (Beech) *Fagus sylvatica* from *P. coryli*. The young *F. sylvatica* was standing between Hazel (*Corylus avellana*) and 6 mines were found on *F. sylvatica* from that species. They were not fully developed and died. Some of the mines were given to Camiel Doorenweerd for DNA analysis to be sure it isn't *Phyllonorycter esperella* instead of maybe another *Phyllonorycter*! I know that *Phyllonorycter maestingella* sometimes makes upper side mines but those were certainly not from *maestingella*!)

<http://www.bladmineerders.be/nl/content/phyllonorycter-coryli-nicelli-1851>