

**LEAF MINING ORGANISMS NOT PREVIOUSLY RECORDED
ON THE ISLE OF WIGHT - 2010**

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Since the last leaf miner report six new leaf mining insects have been found on the Island : two flies, one beetle, two moths and a sawfly.

DIPTERA

AGROMYZIDAE

Calycomyza humeralis (von Roser, 1840) on Daisy *Bellis perennis*

The larva of this fly produces a short broad linear mine on the upper surface of the leaf which leads into and is subsequently absorbed by a whitish oval or circular blotch. It pupates in the mine into which it is firmly fixed by a small mass of black frass. The puparium itself is reddish-black. I found two mines on one leaf in my garden in Gurnard (SZ476954) on 30.7.2010, one tenanted by a larva and the other containing a puparium. This fly is found throughout England and Scotland but it is not apparently common. It is found throughout Europe and North America. As well as *Bellis* its hosts are *Aster* and *Erigeron*.

Phytomyza plantaginis Robineau-Desvoidy, 1851 on Greater Plantain *Plantago major*

At a Botanical Section meeting on 29.5.2010 at Kingston Cemetery, East Cowes SZ503947 I found a leaf of Greater Plantain with a long branched narrow leaf mine which had both upper and lower surface segments. The frass was in separated grains and a yellowish white puparium was present at the end of the mine with its anterior spiracles projecting through the epidermis. The fly is reported to be common and widespread throughout the British Isles, and across Europe to Central Asia; also in Japan, Canada and the USA. All *Plantago* spp. are mined but especially *lanceolata* and *major*.

COLEOPTERA

CURCULIONIDAE

Tachyerges decoratus (Germar, 1821) on Balm-of-Gilead *Populus x jackii*

Along the riverside path on the eastern bank of the River Medina at Fairlee SZ5091 are several planted and suckering sweet-smelling Poplars. I found four curious mines on them 21.10.1010. Each mine was a broad corridor up to 8mm in width, mainly upper surface but in places full-depth, initially along the leaf edge and running away from the leaf apex. Two of the mines ended in a circular cut-out 4mm in diameter, one mine contained a white weevil larva and one was empty. The mines each contained a very small hole at the beginning. These are the mines of *T.decoratus*, found throughout Europe. The larva cuts out a circular section of the leaf and falls to earth within it and in which it pupates. As well as mining various Poplar species this beetle also mines Willows.

LEPIDOPTERA

GRACILLARIIDAE

Phyllonorycter hostis Triberti, 2007 on Apple *Malus domestica* cult.

Brian Elliott, Dr John Langmaid and I visited the Osborne House estate on 12.10.2008. At Swiss Cottage SZ525948 we found several tentiform mines typical of the genus *Phyllonorycter* on the underside of the leaves of various cultivars of domestic apple. It used to be thought that only one species was involved, *P. blancardella*. However it has been shown recently that two different species produce very similar mines. John Langmaid took some tenanted mines, bred out the adult moths and by genitalia dissection in February 2010 determined the identification of this new moth for the Island. The mine of *P. hostis* tends to be larger than that of *blancardella* (17-25mm cf. 13-19mm) with one strong central fold rather than usually several distinct folds. *P. blancardella* is widespread and common in central and southern England whereas *hostis* is very local in southeastern England. There are several known localities in Hampshire. It is found throughout Europe and also mines Quince and Whitebeam.

Phyllonorycter tenerella (Joannis, 1915) on Hornbeam *Carpinus betulus*

Hornbeam is relatively common at Osborne and on 17.8.2010 I found two mines of this species at SZ511953 each with a pupal case partially extruded from the mine. The mine is lower surface and situated between two side veins, extending from the midrib almost to the leaf edge. One large central fold contracts the mine so that from above it is seen to form a long narrow tube. The two *Phyllonorycter* species which form elongate mines on the underside of Hornbeam can be distinguished by microscopic examination of the cremasteric processes of the pupa. This species is recorded from Hampshire and is described as widespread and locally common in south-east England. It is found throughout central and north-eastern Europe.

HYMENOPTERA

TENTHREDINIDAE

Heterarthrus nemoratus (Fallén, 1808) on Birch, *Betula* sp.

The Isle of Wight Council organised a very successful “Bio-Blitz” at Fort Victoria SZ3389 on 19.8.2010 when as many different species of flora and fauna as possible were to be identified on the one day. Mike Cotterill is an invaluable member of the team in such circumstances. True to form he found another new species for the Island. He showed me a Birch leaf with a full-depth semi-circular pale brown mine extending from the leaf edge towards the midrib, not confined by side veins and measuring 20 x 18 mm. The mine contained no frass. The beginning of the mine on the edge of the leaf was dark brown and more opaque than the rest of the mine. A clearly visible slit was present near a tooth on the leaf edge and through this the frass is ejected. A cut-out was present where the cocoon had been and a moulted larval head-capsule was present near it. This sawfly mines from June to September in two generations. It is found throughout central and northeastern Europe as well as in Great Britain. One of the texts states that the insect is probably under-recorded as the sawflies live high up in the canopy.

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