Spring Moths at Aston Rowant NNR

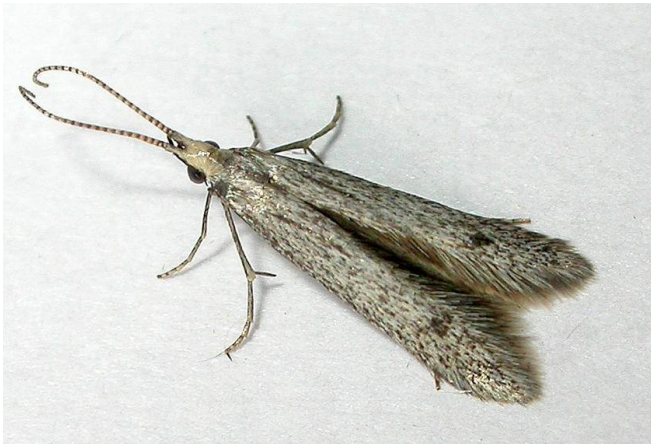
This sheet shows a selection of spring moths that can be found at Aston Rowant NNR, from key leaf-mining and day-flying groups. These are just a sample to help you get a feel for these groups, and others are likely to be encountered. These include species that are very similar to those listed here, and will therefore require careful examination for correct identification.

Coleophoridae ('Case-bearers').

Micro moths with long, tapered adults with lengthy antennae held pointing forwards. These often look very similar and require dissection to separate. Larvae are easier to find and identify, creating blotchy mines on the leaves of their foodplants from within distinctive cases. There are around 100 species in the UK.

***Coleophora hemerobiella* (Black-spot case-bearer).**

At Aston Rowant, this species can be found feeding on Hawthorn and Whitebeam in a long, upright case.



***Coleophora gryphipennella* (Rose case-bearer)**

This species feeds on Roses, making small, white blotches and a case from the leaf edge.

***Coleophora lixella* (Downland case-bearer)**

In spring this species feeds on a wide variety of grasses, but in autumn it is found on the flowers of Thyme, it is therefore restricted to chalk grassland in the Upper Thames.

***Coleophora albitarsella* (White-Legged Case-bearer)**

At Aston Rowant this species feeds mainly on the underside of Marjoram leaves, but also Ground Ivy and Wild Basil.

***Coleophora discordella* (Lotus Case-Bearer)**

This species makes a distinctive pistol-shaped case on Bird's Foot Trefoil.

Eriocraniidae (‘Spring Jewels’)

This is a small family of quite ‘primitive’ micros which fly in early spring and make blotch mines on the leaves of various trees. Most of the UK species can be found at Aston Rowant, and a key to identifying their mines on birch is shown below, taken from the British Leafminers website (http://www.leafmines.co.uk/html/mine-guide/birch.htm).

Eriocraniidae (May to July)		
1	Mine begins well away from leaf edge, with a narrow gallery containing linear frass. This feature normally remaining visible when absorbed in the later blotch	2
	Mine begins at or near leaf edge. A short length of feeding, if present, widens abruptly into a blotch	3
2	Early gallery, in centre of leaf, absorbed by an elongate oval blotch, leading to a large blotch on leaf edge. Larval feeding starts in May. Final instar larva white, with pale brown head and darker mouth parts, lateral projections on first abdominal segment [5-6]	Eriocrania salopiella 10
	Early gallery, in centre of leaf, somewhat angular and absorbed by narrow angular blotch leading to a larger blotch on leaf edge. Larval feeding starts in June. Final instar larva white, head brown with black lateral edges. On the prothorax (dorsal surface) are two cloudy brown spots [6-8]	Eriocrania sparrmannella 9
3	The blotch, on the edge of the leaf, contains more than one, usually two or three pale watery-white larvae [5]	Eriocrania cicatricella 11
	The blotch contains only a single larva	4
4	Larva dark grey [4-5]	Eriocrania sangii 12
	Larva whitish	5
5	Larva (final instar) with pale brown head. Lateral projections on first abdominal segment [4-5]	Eriocrania semipurpurella 13
	Larva (final instar) with dark brown head. The posterior points of the head-capsule show as two black spots. Lateral projections on second abdominal segment [4-5]	Eriocrania unimaculella 8

Paracrania chrysolepidella (Hazel Spring Jewel)

A local species, at Aston Rowant it mines Hazel and Hornbeam.

***Eriocrania sangii* (Purple Spring Jewel)**

This is one of a number of species mining birch, and is distinctive owing to its grey larvae, all other species are whitish.

Elachistidae ('Grass-miners')

These species all make long mines in the leaves of various grasses. Adults do come to moth traps, but these tend to be the same common species, and even then are often very difficult to identify. With practice, searching for mines on grasses, or sweeping adults around foodplants can be a much easier way to record these species.

***Elachista humilis* (Dusky Grass-Miner)**

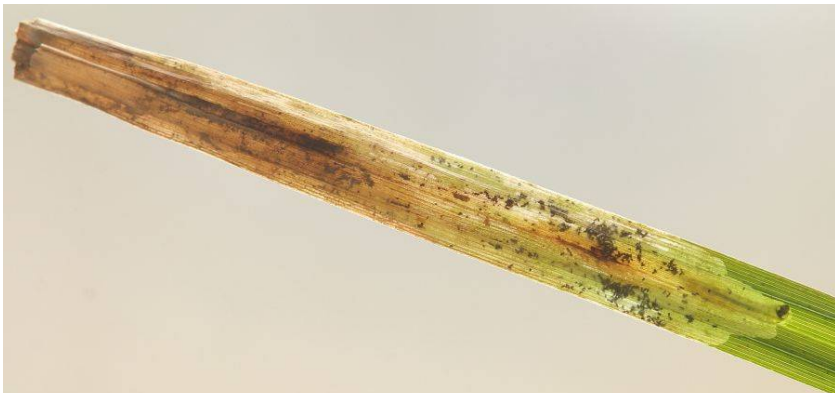
This species has a yellow larva and makes a mine with scattered black/brown frass in the tips of Tufted Hair Grass leaves. All other species on this host have grey larvae.

***Elachista adscitella* (Oblique-Barred Grass-Miner)**

This species also mines the leaves of Tufted Hair Grass, but it has a grey larva, and piles the frass at the top of the mine. It was new to Oxfordshire in 2021 and has been found at 10 sites since, all as a mine.

***Elachista gleichenella* (Twin-Barred Sedge Miner)**

This beautiful species mines the tips of the leaves of various Sedges. At Aston Rowant it uses Glaucous Sedge and Wood Sedge in shady woodlands.



***Elachista subnigrella* (Dingy Grass-Miner)**

This is a local species of chalk grassland. At Aston Rowant it feeds on Upright Brome and adults can be swept from the grassland.

***Elachista bedellella* (Oat-grass Miner)**

This is a rare species of chalk and limestone grassland which feeds on Meadow Oat Grass. Mines are hard to find, and it is most easily seen by sweeping the grassland.

Plume moths - Pterophoridae

This very distinctive group of micros has relatively large, often hairy, larvae that either feed freely on leaves, or mine stems or leaves. Adults can be found by day too, and they are well-represented at Aston Rowant.

Dingy White Plume

Larvae of this species feed on Marjoram, biting through a shoot and causing it to wilt.

Crescent Plume

Larvae of this species are often abundant on Rest Harrow, and adults can usually be found around it by day.

Other Day-Flying Moths

While some of these species can be found as larvae at Aston Rowant, most of them are very active and easy to see by day.

Pyralids*: Pyrausta nigrata* (Wavy-Barred Sable) & *Pyrausta aurata* (Mint Moth)

Tortricids: *Rhopobota stagnana* (Scabious Marble) & *Ancylis comptana* (Least Hook-Wing)

Cistus Forester (this one’s a macro moth!)

Juniper-feeding moths

One of the important features of Aston Rowant is its population of wild Junipers. Large populations are now a great rarity, and this is one of the best in southern England. As a result the site is one of the most important in the south for juniper-feeding micro moths. Two should be on the wing at the moment*:* *Argyresthia arceuthina* (left) and *Argyresthia praecocella* (right). These can be found by gently tapping Juniper bushes at dusk, and netting the moths as they fly out, or tapping the bushes into an upturned net by day. *A. arceuthina* is very common at Aston Rowant, but *praecocella* is more local.

Images used here are by Will Langdon, Dave Wilton and Patrick Clement. The key to Eriocraniidae on birch was taken from the excellent British leafminers website: http://www.leafmines.co.uk/html/Mine_Guide.htm. This is the best place to get to grips with the variety of leaf-mining lepidoptera in the UK, and has photos of the mines of most species of Coleophoridae, Elachistidae, and Eriocraniidae, as well as other leaf-mining groups that feed later in the year.

Will Langdon May 2024