

## The Dreaded Scopariinae – some notes on identification.

### Introduction

When you first look at Goater, the initial reaction is that all the Scoparia and Eudonia species look the same! It is perhaps more difficult to put into words how to get past this point than it is to describe how to differentiate particular species pairs.

Clues can be obtained from the flight period. Goater states that *S. ambigualis* is the first species on the wing and some people start by identifying all early Scop's as this species! This is incorrect however as *S. pyralella* flies just as early as *ambigualis* and, in the south, *E. angustea* flies before either of them! This latter problem is not currently an issue in northern England as *angustea* is single brooded here and does not appear until late summer. *S. ambigualis* and *S. pyralella* both appear in May, *ambigualis* has a very long flight period and can still be found in August but *pyralella* is uncommon after the end of June. A similar situation exists with *Dipleurina lacustrata* and *E. mercurella*, they both emerge from mid- to late-June onwards but *lacustrata* peaks quickly and has generally disappeared by the end of July whereas *mercurella* flies right through into September. *E. truncicolella* usually appears in late July and is common throughout August in many areas. It is NOT confined to large woodlands as stated in Goater.

The species referred to above are the common ones and are the only ones that most people will record in their gardens (with the possible exception of *S. subfusca* but I fear that this species is significantly over-recorded!). Obviously people with gardens in favoured localities may record some of the scarcer species but you should be prepared to justify to yourself and to your County Recorder why anything else is what you claim it is!

As with any moth these days, you cannot take flight periods as reliable criteria for identification!

### Jizz

Please bear in mind that these are just tips to point you in the right direction!

Starting with the largest species, there are *S. subfusca* and *S. basistrigalis*. *Subfusca* is a very poorly marked species and the specimen in Goater is more heavily marked than most – beware poorly marked, large specimens of *ambigualis*. *Basistrigalis* is fairly easy when you get large, dark specimens like that in Goater. However there is also a common form which looks much more like *ambigualis*. The status of *basistrigalis* in the Midlands and northern England is in dispute and several counties have deleted it from their list. Any specimens in Lancs, Cheshire, Yorks, etc. should be passed to the County Recorder for verification (or if the County Recorder isn't familiar with this species, please send it to me).

Typically, the next biggest are *truncicolella* and *murana*. *Truncicolella* has a 'scratchy' appearance but this species pair is generally thought to be very difficult to separate. (See later for the solution!). Whenever discussing sizes, *ambigualis* causes problems as it comes in a vast array of sizes from *basistrigalis* down to *mercurella*. The one useful thing that can be said is that *ambigualis* has a noticeably longer wing than *pyralella*.

*S. ancipitella* is the same size and shape as a 'normal' *ambigualis*. Fresh specimens show the pattern of basal and terminal areas lighter than the central band (as shown in Goater) but this quickly fades. Next come *E. delunella*, *E. mercurella* and *D. lacustrata*. In relatively fresh specimens, the dark area around the reniform stigma on *delunella* sticks out like a sore thumb! The other two species can be tricky although *mercurella* is typically much darker than *lacustrata*, particularly in the band between the basal and postmedial lines. The area of the reniform stigma is typically dark in *mercurella* and pale grey in *lacustrata* but beware of wear!

*E. pallida* is small and relatively unmarked when compared with other species. It is associated with wetlands but does wander widely.

*E. angustea* is perhaps the easiest of the Scopariinae to identify, purely on account of its very narrow wings.

I am insufficiently familiar with *E. lineola* to comment usefully, and *E. alpina* is excluded from these notes as it does not occur in England (and there is some debate about whether more than one species is involved!!).

### Species Identification

The line drawings below are taken from Die Zunslerartigen (Pyraloidea) Mitteleuropas by Frantisek Slamka. This book is cheap and well worth buying, not least because it illustrates the genitalia of almost all the British species of Pyralidae. I have to say that some of the drawings are a bit dubious but others show very useful features that are not illustrated in the British literature. I have dissected quite a lot of Scopariinae recently to check these features and, for the species which are illustrated below, I have yet to find any specimens which contradict the features shown. However, do take care when using these features and please let me know if you encounter problems.

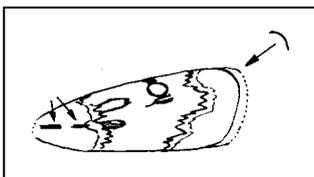
I have also added a few notes for certain species where I have found criteria that are not mentioned by Goater.

### Scoparia subfusca 1332



1332 Scoparia subfusca 21-30mm m.6-7

### Scoparia basistrigalis 1334a

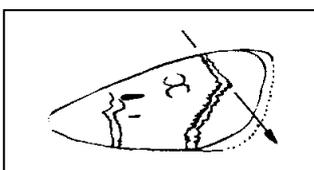


Wing shape is always tricky for beginners but the basal dashes seem reliable (if they haven't worn off). This species seems more closely tied to deciduous woodland than the other species but it can of course wander. See previous comments about records in the Midlands and northern England.



1334a Scoparia basistrigalis 20-23mm m 7

### Eudonia truncicolella 1340



The angle of the postmedial line seems to be a reliable and useful feature and should resolve the difficulties of separating *truncicolella* from *murana* in all but the most worn specimens. An additional feature that I find useful in fresh specimens is that the fringe of the forewing in *murana* has dark and pale blocks of roughly equal size, giving a chequered appearance. In *truncicolella* the dark blocks are significantly broader than the pale ones so that the fringe appears dark with pale lines.

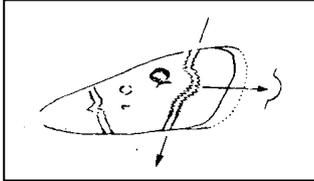


Eudonia truncicolella



18-23mm m. 7-8

### Eudonia murana 1339



See comments above for separation from *truncicolella*. NEVER record *murana* on the basis of habitat as *truncicolella* is common on moorland.



Eudonia murana 18-22mm m.6-7-8

### Scoparia ambigualis 1334

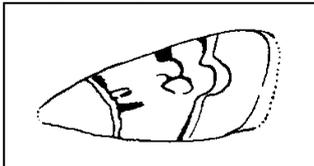
This is the most widespread and common species in the UK. It occurs anywhere that trees or shrubs grow and it abundant in woodland. Records of this species are rarely rejected!



Scoparia ambigualis 15-22mm m.5-7



### Scoparia pyralella 1333



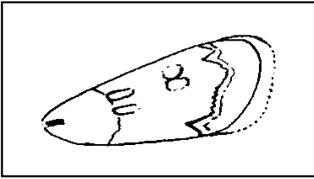
This drawing shows the lines around the reniform stigma meeting in the middle to form an X. I have only ever seen this on a few occasions and I consider this to be a fairly reliable pointer towards *ambigualis*. *Pyralella* is only really common in open free-draining habitats such as limestone grassland and sand dunes. Gardens with more *pyralella* records than *ambigualis* are highly suspicious! When compared with *ambigualis*, *pyralella* has a noticeably shorter, and proportionately broader, wing.



Scoparia pyralella 17-20mm m.6-7



**Scoparia ancipitella 1335**



Apart from the general colouration of fresh specimens referred to above, useful features are the basal dash (although this seems to wear quickly) and the sharp indentation of the postmedial line near the costa (again this can be hard to see in trap-worn specimens). The other sharp indentation that is illustrated near the dorsum does not occur in any British specimen that I have seen. Please record the habitat details of any site where you find *ancipitella*.



Scoparia ancipitella 18-21mm m.7-8

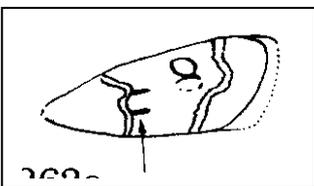
**Eudonia delunella 1343**



Eudonia delunella 17-18mm m.7-8

**Eudonia mercurella 1344**

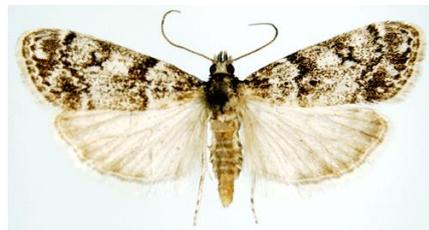
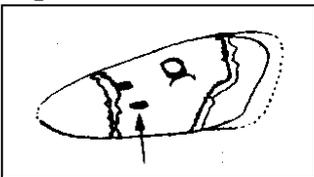
See the comments under 'jizz'. Otherwise the picture shows the feature!



Eudonia mercurella 16-19mm m.6-9

**Dipleurina lacustrata 1338**

See above.



Dipleurina lacustrata 16-18mm m.6-8

**Eudonia pallida 1336**



Eudonia pallida 17-19mm m.6-7

### **Eudonia angustea 1342**



Eudonia angustea 17-22mm m.7-10



### **Eudonia lineola 1341**



Eudonia lineola 18-20mm m.7-8



### **Dissection**

There can be no escape from the fact that, in the end, some specimens will defy identification without dissection. The problem then occurs that some of the features are subtle and are not particularly well illustrated in the available literature. In particular, be aware of the paper in the Entomologists Gazette which corrects the errors in other literature regarding the separation of female *truncicolella* and *murana*.

There is no substitute for having your own slide preparations of each species. This can be done by dissecting clearly marked specimens which have been confidently identified but I may also be able to supply a small number of people with slides of the common species. There would be a charge of 50p per slide to cover my expenses. Please contact me if you are interested.

### **Disclaimer**

These notes were prepared for the North of England Pyralid Workshop in October 2003. Particular emphasis has therefore been given to species occurring in that part of the country. Every effort has been made to ensure that the information given is accurate but errors are always possible.

Please repay the time that has gone in to compiling these notes by:

- a) supplying your Scopariinae records to the recording scheme
- b) providing feedback about these notes, both in terms of how useful they are and regarding any errors or omissions

Tony Davis October 2003 (words & drawings)

With photos from Ukmoths, Swedish NRM, & Goater added 2009