# WELCOME TO THE TEST VERSION OF

## MIMOLA-ID

(A Multi-Access-Key to Aid the Identification of Micro-moth Larvae)

Developed by Graham Wenman, with technical help from Dr. Rich Burkmar.

The system data has been assembled solely from photographs, many found on the internet, and covers over 600 species. Some of the photos are such that not all aspects of the larva are visible and thus their data is incomplete. No photographs are available for the remaining species so there is no data for them, and data will be added as and when new photographs become available.

## IF YOU HAVE PHOTOS OF ANY MISSING LARVAE THAT I CAN USE, PLEASE CONTACT ME.

Leaf-mining larvae are not covered, nor are case-bearing larvae.

Larvae feeding in roots and stems and miners which become free-living are included where possible.

Larval lengths have been estimated, based on the wing lengths of the adult moths.

Data concerning foodplants has been derived from moth books and thus is not as comprehensive as it could be. Work on data for polyphagous species is in progress

Links to distribution maps are built into the system.

## **USING THE SYSTEM**

MIMOLA-ID, allows you to select the features of the larva you wish to identify in any order you want from the lists of possible features.

Built into the system is a scoring process and the system automatically selects all species for which the data in the system matches the value you have selected. A score is allocated and the species list is re-ordered to reflect that choice.

As you choose each feature, so the scores accumulate and the "best match" (highest score) rises to the top of the list.

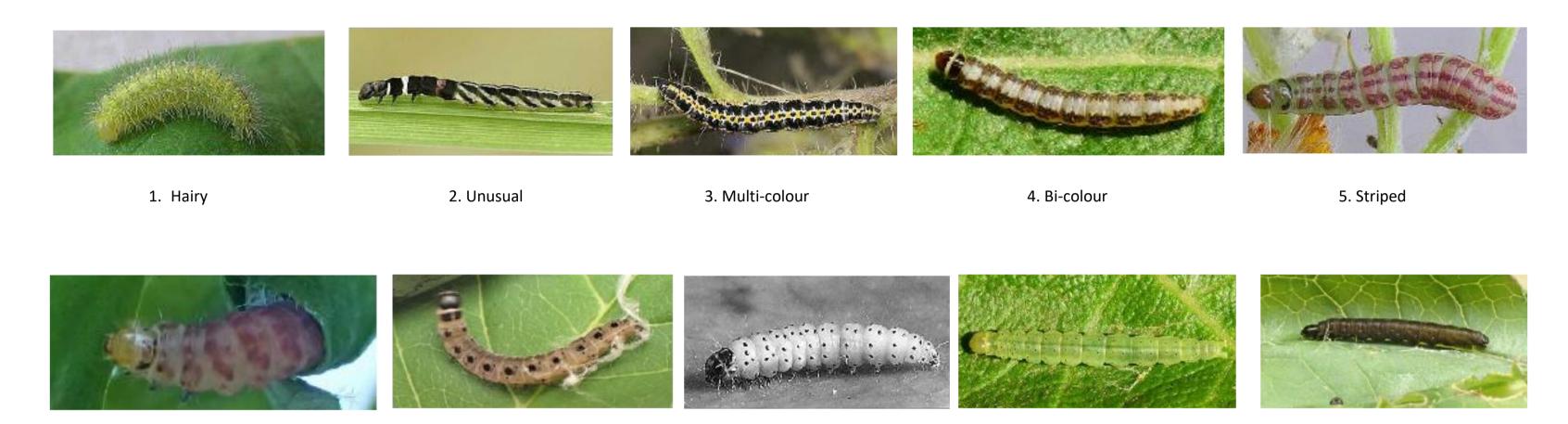
Also built into the system are some "near miss" scores for features close to but not exactly the same as your choice.

# **THE FEATURES**

6. Banded

**APPEARANCE** You can choose which of the following your larva most closely matches - hairy: unusual: multi-colour: bi-colour: striped: banded: spotted: warts/dots: speckled: unicolour (see below)

These pictures will appear if you click on the APPEARANCE header when using the system The system will allocate a score to all the species which have the same choice as yours and in addition will give a partial score to the ones on either side of your choice.



**SHAPE** Choose a shape from the pictures which appear when you click on the SHAPE header. The system will select all the species which are the same as your choice, plus the ones on either side of your choice. (Examples shown below)

8. Warts/dots

9. Speckled

10. Uni-colour

7. Spotted



**DATE** You can choose the month in which you found your larva

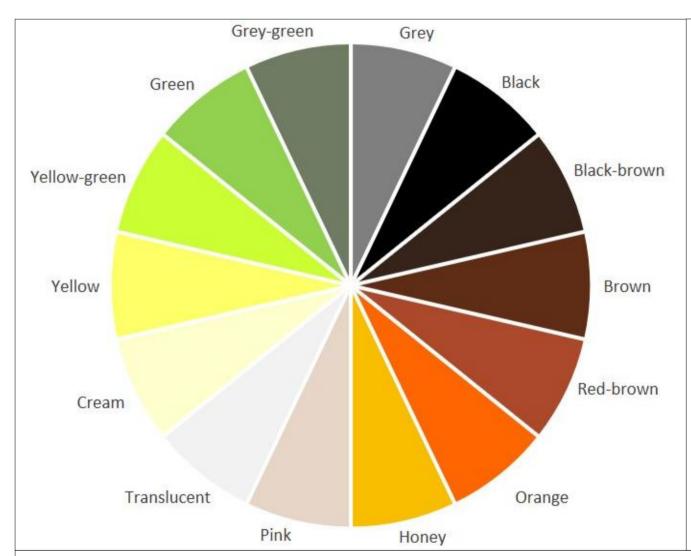
**LENGTH** You can enter the length (mm) of the larva. Remember that this may not be a fully-grown larva.

**FOODPLANT** You can choose the 'foodplant' on which you found the larva. The list of foodplants contains almost every plant which is listed in current books concerning micro-moths.

The list also includes items which are not plants, such as detritus, etc. In the next version of MIMOLA-ID it is proposed to cover the polyphagous nature of certain species more accurately

**METHOD** This heading refers to the part of the foodplant where the larva was feeding and whether it was concealed, etc. There is a list from which you can choose.

<u>COLOURS</u> All of the remaining choices relate to the colour of the various parts of the body of your larva. The data in the system has been created by looking at photographs of larvae from the internet. It is entirely possible that some of the photos have been "enhanced" in some way or other (e.g. lightened). In addition, there are many interpretations of colours (light brown or pale brown, etc.) so within MIMOLAID the choice of colours is limited to the following.



Choose the closest matching colour for each of the following:

<u>Head colour:</u> and if it has dots, dashes, etc, the colour of these in <u>Head markings</u>. Or you can also choose "V" if the larval head has this feature.

<u>Prothoracic plate colour:</u> and if it has dots, dashes, etc, the colour of these in <u>Plate markings</u>. Or you can also choose "divided" if the plate has this feature

Thoracic legs, Anal plate, Pinacula, Hairs: For each of these, merely choose a colour

### Body:

- basic colour for larvae with Appearance = unicolour
- second colour if present (bi-colour)
- third colour if present (multi-colour)
- basic colour of Dorsal line/stripe Is it continuous? Yes or No
- basic colour of dorsolateral lines

### **Notable Features**

The system does not offer the choices of additional features, such as different coloured pairs of legs, two-colour pinacula etc, but obvious features are shown in the data for many larvae for which such features are notable (e.g. the swollen 3<sup>rd</sup> leg of D fagella)

# N.B It should be noted that Red-brown has been used in the system to include purplish

The MIMOLA-ID scoring system is designed to give partial scores for colours on either side of the colour you select. This means that there is some latitude which hopefully compensates for the above-mentioned problems

It must also be remembered that some larvae change colour (and length!) from instar to instar (and at pre-pupation)

As a general rule, it is assumed that the data refers to late instar larvae.