Verification policy for handling records of the cryptic *Yponomeuta* aggregate group.

Typically the *Yponomeuta* species are small white moths, submarine shaped, with longitudinal rows of black spots or dots. During their flight period they can often arrive at moth traps in large numbers.

This policy specifically relates to the recognised cryptic group comprising of ***Yponomeuta padella*** (Orchard Ermine), ***Yponomeuta malinellus*** (Apple Ermine), ***Yponomeuta cagnagella*** (Spindle Ermine) and ***Yponomeuta rorrella*** (Willow Ermine). This cryptic group, are all very similar in appearance, with 3 or 4 rows of black dots on a white, whitish or grey-white ground colour, and not more than 8 dots in the most dorsal row.

The reason for this verification policy is that adult morphology and standard genitalia dissection cannot safely separate these four species. The verification criteria is based on life stage, larval food plant, or species-complex aggregate grading. In addition to this, there is a complex identification guide on British Lepidoptera which covers the *Yponomeuta* group including the four species mentioned here and this document can be used with care and expertise at:

https://britishlepidoptera.weebly.com/yponomeuta.html

The standard verification protocol established by the National Moth Recording Scheme (NMRS), which in the majority of occasions we should use, relies on the following guidelines:

1. Handling Adult-Only Records (Light Traps)

- **Rejection of Specific Determinations:** If a recorder submits a standard light-trap photo or specimen of an adult as ***Y. padella*** or ***Y. malinellus*** based on looks alone, **do not accept it at the species level. Log the record as aggregate.** *(unless you are confident that you can confirm the ID by using the ID Guide Table on British Lepidoptera as above).*

- **Log as the Aggregate:**
  Re-classify the record under the overarching aggregate block: ***Yponomeuta padella-malinellus*** complex or ***Yponomeuta padella/mailnellus/cagnagella/rorella agg.***

- **Exception for Clear Fringes:** *Y. rorrella* can occasionally be separated if the specimen is pristine and shows a distinctly uniform distribution of dots ending abruptly with an entirely white terminal fringe, but standard policy usually clumps it into the aggregate unless proven otherwise.

2. Accepting Species-Level Determinations (The Food plant Rule).

- **Verifiers should only accept a species-level designation if the recorder provides evidence of reared larvae, pupae, or active larval webs found on the specific host plant.**

- ***Yponomeuta padella*** (Orchard Ermine: Accept at species level only if webs/larvae are confirmed on Blackthorn (*Prunus spinosa*) or Hawthorn (*Crataegus*).

- ***Yponomeuta malinellus*** (Apple Ermine): Accept only if found on Apple (Malus). Note: The cocoons of ***Y. malinellus*** are strictly opaque white and neatly aligned in dense parallel sheets, unlike the looser, more random groupings of *Y. padella.*

- ***Yponomeuta cagnagella*** (Spindle Ermine): Accept only if found on Spindle (*Euonymus europaeus*).

- ***Yponomeuta rorrella*** (Willow Ermine): Accept only if found on Willow (*Salix* spp., typically Crack Willow or White Willow).

3. Verification Workflow Policy for our Vice-County.

- **A rule has been set on each species page under verification guidelines:** to flag any species-level entries of these four micro-moths as "Requires Verification".

- **A Note to Local Recorders:** *Yponomeuta* adults caught at light traps should be submitted as the aggregate, unless you can support the record with sound ID evidence. Please actively hunt for webs in May and June to get true species-level counts.

- A message from the verifier who is verifying the record may appear as a query as follows:

“I have amended this entry from the specific species level to the aggregate group: ***Yponomeuta padella*** complex (Orchard Ermine / Apple Ermine / Spindle Ermine / Willow Ermine aggregate).To safely record any of these to a definitive species level in the future, we require supporting evidence from the larval stage. If you find active larval webs, caterpillars, or pupae, the species can be determined based on the host plant”.