

**NOTES ON THE LIFE HISTORY OF CORYPHISTA MEADI PACK.
AND FORM BADIARIA HY. EDW. (LEPIDOPTERA:
GEOMETRIDAE)**

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The following notes on the life history of the moth *Coryphista meadi* Pack. may be of interest as bearing on the relationship of the colour forms. A female of the form *badiaria* was taken on Mount Prevost on May 20, 1952. From this specimen a batch of ova was obtained and the resulting larvae were reared to maturity.

Ova. Laid in small box on May 20-23 inclusive, singly or in short strings in which the ova were laid side by side, until a total of 75 was obtained. Shape oblong, smooth with minute reticulations. Size 0.75 mm. x 0.50 mm. Colour creamy, becoming darker towards hatching time.

1st Instar. Hatched May 27. Length 2 mm. Head light brown; body colourless, translucent, soon becoming green after feeding. No markings. The larva does not eat the egg shell. The food plant is *Berberis nervosa*; other plants, placed before it were refused. When jolted the larva hangs by a silk thread to the twig or leaf from which it has fallen. When mildly disturbed it draws the body into a tight vertical loop, claspers and true legs touching. In this position it remains motionless for some time, or until all is quiet again.

2nd Instar. June 1st. Length 10 mm. Head pale brown; body dark green to black with white interrupted spiracular line. Feeds at first on underside of leaf, chewing through the epidermis on one side only. Later it feeds at edge of leaf in the usual manner.

3rd Instar. June 6th. Length 14 mm. Head as before; body black with a broad irregular spiracular line and four thin longitudinal lines on the back, all white. Underside dark olive green.

4th Instar. June 10th. Length 18 mm. Head orange; body as before but with intensification of the black and white; spiracular line very conspicuous and

with a chain-like formation due to a series of interrupted black hyphen-like marks along the centre of the line, placed at the junction of two segments. The wider part of the line is suffused with pale lemon yellow, and contains two black tubercles. The spiracles are black and are centred on the spiracular line, giving to the segments containing them the appearance of three black dots. Underside fuscous with a medium white line. When full fed the larva measures 25 mm; it is then a strikingly handsome caterpillar.

Pupa. Pupated June 15. All went below the surface of the soil within an hour or so. Colour dull mahogany brown, cremaster shining, black, with two short, stout outwardly curved hooks. Length 14 mm. by 4 mm. The pupa is enclosed in a cocoon made of loosely cemented soil particles just below the surface of the ground.

Imagines. Nearly all emerged on July 8th almost at the same time. With about 60 arriving at once the rearing box presented a lively appearance.

Remarks. The ova hatched in seven days from time of laying. The larval period was 19 days, while the pupal life was completed in 23 days, making a total of 49 days from egg to adult. From the 75 ova obtained, 57 adults were reared. Of these, 29 were typical *meadi* and 28 were of the form *badiaria* with no intermediate grades. Sexes were indiscriminately distributed among the two forms, with males predominating.

With such a marked distinction the name *badiaria* is a convenient term to distinguish this colour phase from typical *meadi*, the colour form from which the original description was drawn. The uniformity with which the larvae developed, pupated and the adults emerged, each stage at about

the same time almost to the minute, is rather remarkable under confinement.

An attempt to mate the moths was unsuccessful. As this species is apparently single brooded, it is possible that

mating would be delayed until the following spring, as the female *meadii* *f. badiaria* from which the ova were obtained was very worn and minus a hind wing, evidently a hibernated specimen.

TWO DECADES OF HOUSEHOLD PESTS IN VANCOUVER: A SUMMARY OF ENQUIRIES

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There are certain unavoidable imperfections in these records.

1. Citizens of this Province and of Vancouver have been slow to realize that they can get a measure of help from the University in connection with their insect problems.
2. Many enquiries have come in and have been answered over the telephone: only in later years have some of these messages been recorded.
3. Those recorded have been mostly letters sent to enquirers, of which carbon copies are on file.
4. While 95 per cent. of these records are from Vancouver, I have purposely included some from other points in the Province to show the spread of an insect or its distribution.
5. Most of the enquiries come in during the summer months when I am away on field work.

With the University becoming better known, the volume of enquiries is steadily increasing until now they average 30 to 40 per month throughout the academic year. Some of these enquiries sent to *The Entomologist*, credit me with encyclopedic knowledge; some I can hand to other members of our Department, but the rest I have to answer. Samples of these are:—

Types of questions sent in to an Entomologist

How to remove moss from roofs.
What rotifers occur in moss on roofs?
How to prevent woodpeckers drilling in roofs and pigeons from fouling cornices.

Will carpenter bees in nail holes in walls and between shingles on roofs destroy the house?

Concerning insects brought into houses on cut flowers or leaves, aphids, thrips, blotches on holly leaves, borers in rose stems, *Leptoglossus* on holly, aphids and scale on ferns.

Odd insects flying in, esp. *Polyphylla cinita* Lec.

Horn-tails being attracted to gas works.

During war years, "how to raise silk?"

How to remove toads, snakes and moles from gardens.

How to tell sexes of guinea fowl and muskrat.

How to remove flies and mites from mushroom beds.

Mites in honey-bee colonies and on earthworm cultures.

How to remove swarms of honey-bees from gardens.

How to rear frogs and toads and to start earthworm farms.

Why has a moose a bell?

Why are there no skunks in central B.C.? and so on.

Therefore the following records are cut down heavily to include only those affecting homes, in one way or another.

In view of the above-mentioned imperfections in these records, I can give you only an *idea* of what household pests occur in Vancouver; it is at best, only an *indication* and therefore curves or histograms of records are of little use and are consequently omitted and the enquiries are grouped into topics or categories.