

♀.—Similar in coloration to the ♂ but with the brown shading before the t. a. line and beyond the t. p. line more prominent; the reniform is contained in a distinct white patch and the black terminal line is bordered inwardly with white. Expanse 50–55 mm.

Holotype.—1 ♂, Chelsea, Ottawa Co., Que. (July 8–14.)

Allotype.—1 ♂, Chelsea, Ottawa Co., Que. (July 8–14.)

Paratypes.—1 ♂, 2 ♀'s from same locality, and 1 ♂, 2 ♀'s from Aylmer, Que.; all in Coll. Barnes.

We have already noted (l. c. p. 129) the points by which this species may be separated from the very similar *vagans*, but we must confess that, without a knowledge of the larva, in many cases a definite identification is practically impossible. There is considerable variation in the species, especially in the ♀'s; these tend to show an indistinctness of maculation, combined with a diffusion of the pale shades, which gives a general washed-out appearance to the specimens and is quite characteristic of the species. As regards the larva we have nothing to add to the description we published under the name of *willingi* (Contr. IV, (2), p. 130); we have taken the caterpillars on oak, beech and hazel and have found the empty cocoons on poplar so that the range of food-plants appears to be wide.

Of the *Olene* species feeding on deciduous trees we now definitely know the larvæ of *meridionalis*, *vagans*, *leucophæa*, *atomaria* and *dorsipennata*. Of these *meridionalis* and *vagans* are very similar and it may be, when the connecting link, *basiflava*, from the Southern New England States is known, that these three forms will be regarded as races of one species rather than as distinct species. It should not be hard for some of our New England collectors to settle this question as the larvæ are quite readily found by searching the trunks of trees in the day time; in most instances they are partially concealed in crevices of the bark. Beating in the early morning or at dusk is also productive of good results, especially in a neighborhood where the species has been definitely located.

The following table may be used as a means of separation:

Larva entirely ochreous.....*leucophæa*.

Larva gray or brown

With lateral black hair pencils anteriorly only.....*atomaria*.

With lateral black hair pencils anteriorly and posteriorly

With long dorsal black hair pencil on Segment XI.....*dorsipennata*.

Without hair pencil on Segment XI.

Dorsal tuft on Segment XI broad, brown; many black,

plumed hairs from lateral tubercles.....*meridionalis*.

Dorsal tuft on Segment XI narrow, blackish; only one or

two black plumed hairs from each lateral tubercle.....*vagans*.

Concerning the pine-feeding *Olenes* Dr. McDunnough was successful in securing a number of the larvæ of *plagiata* by searching pine trunks in the vicinity of Ottawa the last week in May; they were then full grown, pupating in about a week and producing the adults in early June. Mr. J. M. Swaine, of the Entomological Branch, Ottawa, brought in two young larvæ of the same species in June, obtained by beating young pine trees in the vicinity of Ft. Coulonge on the Ottawa River; one of these fed up and produced the adult in August;