

FIELD AND TECHNIQUE NOTES

FAGITANA LITTERA REARED FROM LARVA

A green larva feeding on the Marsh-fern, *Aspidium thelypteris* (L.) Sw., in a cranberry bog near Riverhead, Long Island, N. Y., was taken on June 25, 1953. The larva refused other plants as food but continued to eat fresh offerings of this fern for eight days. It finally wove together a loose cluster of fronds and pupated therein.

Green larvæ are so usual in marshes that slight consideration was given to this specimen. On the morning of July 26 a female *Fagitana littera* Wlk. emerged.

In my series of 20 light-caught specimens of this species collected during 25 years in Orient, 30 miles east of Riverhead, only one female is represented, an indication that the females do not fly as freely as the males. Not more than two have been taken in a season, usually one or none. Since the annual burning of the local marshes for mosquito control 12 years ago, no *F. littera* has been observed in Orient. This could mean that the egg is the over-wintering stage and that fires have eradicated this species locally, as fires have various species of *Papaipema* in this region.

The food plant, in the above case, is one of the most common and generally distributed species in the East, while *F. littera* is apparently a scarce species throughout its range.

The light captures in Orient are all between June 4 and July 12. There are published records to late September.

The data secured on the reared example prove it to have been a robust, smooth, slow-acting larva, approximately $1\frac{1}{4}$ inches in length, in color a light green with a faint pinkish cast laterally. It pupated in a loose cluster of fronds near the top of the fern, the clustered foliage so open that detection would be scarcely noticeable to casual observation in the field.

There appears to be no record of the early stages of *F. littera* in the literature nor knowledge of them through correspondence from lepidopterists.

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THE APPARENT INFLUENCE OF ISOLATION IN SOME SPECIES OF GEOMETRIDÆ

If I may be allowed to say so, Mr. PRONIN's remarks in the opening paragraph of his paper of the above title (*Lepidopterists' News*, vol. 6: p. 93; 1952) betray a lack of research amongst current literature on Industrial Melanism.

I do not think that it was ever denied that melanics in industrial areas obeyed the ordinary rules of genetics, although Mr. PRONIN in his remarks on his brood of black *A. betularia* rather implies that it was.

The experiments of HARRISON with Geometrid larvae fed on food-plants impregnated with the salts of lead and manganese were said to produce a form of melanism that behaved as a recessive. MCKENNY HUGHES repeated the experiments but did not obtain confirmatory results, and it has been suggested that, although HARRISON's original material came from areas where melanism was unknown, a moth carrying a melanic gene was, somehow or other, introduced. IMMS (*Recent Advances in Entomology* (2nd edit.), pp. 198-9; 1937) summarizes the situation.

I think the more generally accepted view amongst entomologists in Great Britain, where the phenomenon of industrial melanism is most evident, is that the soiling of the usual resting places of moths—rocks, tree-trunks, etc.—by soot in industrial areas has made it easier for any melanic mutant to survive and produce offspring, as it is far less noticeable than it would be on rocks or tree-trunks that were unsoiled. If, as seems often to be the case, these melanics are dominants, the spread of the black through the normal coloured population is very rapid, and this would be even more pronounced in small isolated colonies.

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