

## Some Notes on collecting Lepidoptera at Repton in 1923.

By H. C. HAYWARD, F.E.S.

THE season of 1923 will probably be remembered by field entomologists as one of the worst on record. The unusually cold though dry June may perhaps bear the chief responsibility for this, but no doubt other causes contributed. Anyhow the experience seems to have been general all over the country.

In 1922 I had the good fortune to breed a single specimen of *Eupithecia Trisignaria* of a pure melanic form, closely resembling var. *Angelicata* of *E. Albipunctata*, and therefore an effort was made in the autumn to collect as many as possible of the larvæ of this species. They were found to be more numerous than usual and upwards of a hundred were taken; but although a few imagines were bred showing a tendency to melanism, no specimen comparable to the pure black example bred in 1922 was obtained and it would seem that the form is not one that can be relied upon as yet. The *Angelica* plants from which these larvæ were collected also yielded a good supply of *Albipunctata* and about a hundred of these were kept, in order to test the frequency of occurrence of var. *Angelicata*. The results were rather interesting. *Albipunctata* is always very subject to the attacks of parasites and these proved no exception. In a large number of examples the larval skin was entirely filled with the pupae of a minute hymenopterous parasite. In most cases the larva had already formed its cocoon and the distended skin was found rigid and doubled up within. Occasionally however a larva had died before pupating and the larval

skin was stretched out straight. One such, which preserved the natural shape and markings of the full fed larva produced no less than forty-six of these small parasites and there appeared to be other pupae within from which the imagines had failed to emerge. A similar or identical small parasite attacks the larva of most Eupitheciids that I have bred, notably *Venosata*, *Subfulvata*, *Succentaureata*, etc., though I have never observed it in *Trisignaria*, which seems, here at any rate, to be singularly immune from parasites. Another larger and solitary hymenopteron forms its cocoon within the lepidopterous pupa, which is indistinguishable from the normal until shortly before the emergence of the parasite, when it becomes slightly distended and transparent and the markings of the hymenopteron can be seen within. Between them these parasites accounted for something like forty-five per cent. of my larvæ and the total number of moths bred was fifty-two. Of these 15 or nearly 30 per cent. were of the *Angelicata* form. On the last occasion when I bred these "pugs" here on any scale, some fifteen years ago, about 10 per cent. of *Angelicata* were noted, so that it would seem that the melanic variety, in this as in so many other species, may be rapidly on the increase. This autumn a further search has been made for *Trisignaria* larvæ, but only about a couple of dozen were found and *Albipunctata*, usually by far the commoner species of the two, was only observed in even smaller numbers.

There is not much of interest to record this year. For the first time since 1916 no addition has been made to the county lists, though specimens of several species only recently recorded have been noted. The occurrence in late April at Repton of *Cucullia Chamomillae* and *C. Verbasci*, both rare species here, seemed to hold out a promise of a productive season, which was soon belied. It is pleasant to be able to record that *Melanippe Hastata*,

first noticed in Repton Shrubs last year, has evidently found the locality to its liking, as this year it was present in fair numbers. *Eupithecia Indigata* also was comparatively common, which is rather remarkable in a poor season, considering that not more than two or three isolated specimens had previously been taken in the wood. Whilst collecting larvæ of *Paedisca Semifusca* in shoots of willow growing in a swampy hedgerow, large numbers of *Epunda Viminalis* were noticed and these produced a nice strongly marked form, intermediate between the paler southern form and the more uniformly dark variety usually taken in woods in this district. Larvæ of *Antithesia Salicella* were also taken freely, but they seem difficult to rear unless they are found nearly full-fed, as they are restless and indisposed to feed in captivity. This very handsome Tortrix was recorded by the late Mr. Hill as very rare at Little Eaton, but it seems to be common enough at Repton, though seldom seen in the imago state.

A determined attempt was made to find *Retinia Posticana* pupæ in the Shrubs, but it is evidently very scarce there, for although almost all the available fir-trees were carefully examined, only three pupæ were found, all of which successfully emerged. *R. Pinivorana* was noted in large numbers during this search. The pupa of *Posticana* is deep black in colour and invariably, in my experience, placed head downwards within the pine bud, whereas that of *Pinivorana* is reddish brown and placed head upwards. If little of interest was taken at Repton this year, still less was reported from other parts of the county. A visit to Wirksworth in late May produced practically nothing, *B. Crepuscularia*, *E. Affinitata* and a few common Tineids being the only things noted, whilst one to the moors above Matlock in July was not much more productive. A few specimens of *P. Gerningana*, however, were taken on this occasion, whilst *A. Fumata*, *E. Minutata*

and *A. Myrtylli* were the most interesting of the few other insects observed. *V. Cambrica* was taken at Holy Moor and the usual moorland species were fairly well represented in a number of insects from the neighbourhood shown me by Mr. R. Hooke of Chesterfield.

Since these notes were written, an occurrence of more than usual interest has been brought to my notice, a specimen of *Pararge Megeria* having been taken in the streets of Derby on the 5th of October. This species is one of those that occurred formerly in the county, though never apparently commonly, but had long ago disappeared. It is recorded by Garneys in the *Flora and Fauna of Repton*, 1881, as scarce in Repton Shrubs. The *Victoria County History* adds Seal Wood and a record by H. Harper Crewe from Calke and a single specimen was noted in Lathkill Dale by the Rev. R. H. Fuller in 1893. It is not probable, from the habits of the larva, that the insect was accidentally introduced in an early stage, and it would seem likely that it still lingers, in very small numbers, somewhere in the immediate neighbourhood of the town. In this connection it is perhaps worth mentioning that at Repton, in September, I saw what appeared to be a brown butterfly flying over the churchyard. I failed to get near enough to it even to form a guess at its species, but it looked too small for a belated specimen of *E. Janira*, and may possibly have been another example of this insect.

---