

INSECTS.

Notes on collecting Macro-Lepidoptera at Repton, 1912.

By H. C. HAYWARD, M.A.

The fine weather early in the season was favourable for the shallows, which were luxuriant with blossom, and it was gratifying to find that *Opima*, of which a single specimen was taken some years ago near the railway line in circumstances that suggested the possibility of accidental transportation by train, is really a native of the district. Two specimens were taken in an osier-bed in Repton village in fine condition. *Populeti* was taken in considerable numbers in a restricted locality, and from some of these ova were obtained and the larvæ reared, though for some reason a large number of these died off when about to pupate. *Gracilis* was also taken, and the larvæ of this species were afterwards found in abundance on *Lysimachia*, and proved to be far less infected with ichneumon than had been the case when a number were collected some years ago. *Cynipiformis* larvæ and pupæ were abundant in oak stumps in Repton Shrubs, and seemed to have fed up earlier than usual in the warm weather, as many had already pupated before the end of April. Larvæ of *Bembeciformis* were common in osier-stumps in the spring, but attempts to rear them in captivity did not meet with much success. The larvæ collected last autumn of *Albipunctata* more than lived up to their reputation in the matter of parasites, for besides a large number destroyed by an ichneumon that leaves the larvæ when about three-quarters grown, those that reached the pupal stage proved to be extensively tenanted by a parasite that matures at the same time as the imago. Out of over sixty pupæ, only twenty moths emerged, but it was interesting to find that six of these were of the fine melanic form var. *Angelicata*. The larva of *Trisignaria*, which feeds on the same plants, at the same time does not appear to be attacked, for all those that pupated

were successfully reared. Two or three *Suffumata* were taken, one of which laid ova, from which the larvæ fed up very rapidly on bedstraw. Comparatively little collecting was done in the three summer months, owing to the very unfavourable weather, but a few interesting captures were made. Amongst these may be recorded two imagines of *Dolobraria*, a scarce species here, and one of *Papilionaria*. The small patch of *Silene Inflata* growing near Repton Hayes again produced larvæ of *Venosata* and *Carpophaga*. The imagines bred from larvæ obtained last year of the latter species were of rather large size and pale coloration, but did not differ materially from the normal southern type. Larvæ of *Salicis* were found in abundance on willows at Willington, and a few larvæ of *Dictæa*, *Dictæoides*, *Dromedarius*, *Camelina*, *Furcula*, *Bifida*, etc., were obtained at various times throughout the season. Sugar was unusually barren of results, the mass of moderately common species being almost entirely absent, but to redress the balance one specimen of *Occulta* was taken in my garden, which laid ova that proved, unfortunately, to be infertile, and one of *Leucostigma*, the latter perhaps the most interesting capture of the year, as it had not hitherto been recorded for Derbyshire. Several specimens of *Chenopodii* were also obtained, and this species is not usually common here. A specimen of *Isogrammaria* was taken in my garden, the larva having probably fed on some garden species of *Clematis*. It had not hitherto been recorded in our local lists. There was a most unusual dearth of the common flower-frequenting *Noctuids*, *Chrysitis*, *Iota*, *Pulchrina*, *Umbratica*, *Tripartita*, *Triplasia*, etc., all being either absent or in very small numbers. Perhaps this may partially be explained by the fact that their favourite flowers were all in bloom far earlier than usual owing to the warm spring, whilst the emergence of the insects was retarded by the wet weather, so that the flowers were over before the moths were on the wing. The capture of one specimen of *Chrysitis* in good condition in September seems to emphasize this retardation. One larva of *Festuca* was

taken on Wild Iris, and a number of larvæ and pupæ of *Moneta* on Delphinium.

In July and August large numbers of larvæ of *Valerianata* were obtained, and this species would seem to be abundant, for larvæ were found wherever the food-plant occurred in woods and osier-beds; but, like so many other Eupitheciids, it seems to pay a very heavy toll to ichneumon parasites. *Albipunctata* and *Trisignaria* appeared to be far less abundant than last year, and it was remarkable that the Angelica plants were apparently absent from several portions of the local woods in which they luxuriated in 1911.

Of butterflies a few specimens of the spring brood of *V. Cardui* were observed, and in early August two specimens of *Argiolus* were taken about hollies in my garden. This species is now very rare here.

With reference to the capture last year of *Abietaria* and *Sobrinata* in my garden, it may be of interest to record that the yew trees amongst which the specimen of the former species was taken failed to produce any larvæ, nor did a careful search of available juniper bushes in neighbouring gardens reveal any larvæ of *Sobrinata*.

[TRICHOPTERA.

We are glad to state that Mr. M. E. Moseley's list of Sedges from the Dove Valley continues to make good progress, and now only needs the June records to make it tolerably complete. —F.J.]