The YOUNG NATURALIST:

A Monthly Magazine of Natural History.

PART 76. APRIL, 1886. VOL. 7.

THE INSECTS OF LLANGOLLEN AND ITS VICINITY.

BY JOSEPH CHAPPELL.

Read before the Lancashire and Cheshire Entomological Society, February 22nd, 1886.

IN September last I received, from an Oldham entomologist, a copy of the *Young Naturalist*, accompanied by a note drawing my attention to a paper which had been read before this Society, by our worthy friend Mr. Wilding, entitled "A Day at Llangollen" (Y.N., vol. vi. p. 201), and also requesting me to enlighten the readers of that periodical with reference to *Miscodera arctica*. Being an Honorary member of this Society, I do not wish to appear to attack any of its members as it they had trodden on sacred ground; no, more praise to them for venturing to unravel the mysteries of that beautiful country!

So far as Coleoptera are concerned, the district is very rich in numerous rare species. About twenty-five years ago I was a regular visitor at the late Mr. S. Carter's, to compare my undetermined specimens with the types in his extensive collection. He often drew my attention, during these visits, to a photograph of Mr. Joseph Ashworth's house at Llangollen, with a view of one of the adjoining hills, and he believed this to be the probable locality for *Sesia scoliæformis*, which he told me he had often searched for in vain. One evening, as he sat smoking his pipe, on what he supposed to be the identical spot for this species, he was delighted to see *Prionus coriarius* on the wing. I received many invitations to accompany him to Llangollen, but never availed myself of the opportunity; but about twelve years ago I decided to visit and explore the district for insects, and went there about Whitsuntide, when after securing lodgings for a few days, I sallied forth armed with all my tackle. I have often been in other parts of North Wales, and have come to the conclusion that while tourists usually travel two or three together, and, if artists, betray their intentions by their sketching apparatus, scientific men

oftener travel alone, as if their investigations were too profound for them to wish for company. I had not proceeded far when I met what I took to be one of the latter class, decidedly not a native, and as I was desirous of finding out whether my surmises were correct, and as I could not ask him his business there, I enquired if he could tell me the way to the birch wood. He asked what I wanted a birch wood for, and on my telling him that I was an entomologist, I found he was a brother chip—Mr. Reston, of Stretford. At his suggestion we decided to ascend Oernant, in search of *Miscodera arctica*, and having secured a conveyance we commenced the ascent, after sheltering for a while from a drizzling rain, which, however, shewed no signs of abating. We were soon rewarded by the discovery of *Miscodera arctica* in abundance under stones, and we also captured *Cymindus vaporariorum*, *Byrrhus fasciatus*, *Pterostichus vitreus*, *Olisthopis rotundatus*. A specimen of *Anchomenus gracilipes* fell to the lot of Mr. Reston, and I captured a single specimen of *Lathrobium angusticolle*. While we were on the summit the drizzling rain changed to a thnnder-storm, and it thundered and lightened ncessantly, and rained in torrents; the wind threatened to tear to shreds the umbrellas, under which we crouched to shelter ourselves from the storm.

I have frequently been to Oernant since, and have taken *Miscodera* and the species above mentioned freely (except *Anchomenus gracilipes* and *Lathrobium angusticolle*, which have not since, to my knowledge, been taken there.) I have also taken the following: *Carabus arvensis*, sparingly; *Harpalus latus* and *honestus*, freely; also dark specimens of *Notiophilus aquaticus*; and a small blue variety of *Geotrupes sylvaticus*; *Amara acuminata*, under loose peat, rarely; *Hydroporus discretus*, in sphagnum, behind Oernant, freely; *Omosita depressa*, a single specimen under a stone.

I visited Llangollen on one occasion at Easter, during very cold weather, and found a few larvæ of *Chelonia plantaginis*, and one empty cocoon of *Saturnia carpini*. On the mountain opposite Valle Crucis Abbey, a little nearer Berwyn, I found *Metabletus truncatellus* under stones. By shaking the dead bracken, which lay on the mountain side, into my umbrella, I obtained *Mycetoporus lucidus*, *Pseudopsis sulcata*, *Micropeplus margaritæ*; and *Tetratoma fungorum* in fungi, on birch, which were much infested with the larvæ of *Cossus ligniperda* and *Sinodendron cylindricum*.

On the ascent to Castell Dinas-Bran, in the flowers of *Linaria vulgaris* (toad-flax), I took *Gymnetron noctis* and *Meligethes distinctus*. The latter is the most active species of the genus I have seen. Just before arriving at the castle I took under stones a few specimens of *Otiorhynchus ligneus*. In August, I found under a stone, at a short distance from the castle, a nest of *Myrmica nodicornis*, consisting of males and workers. The late Benjamin

Cooke informed me that this species had not previously been taken in Britain since 1825, when it was found by Mr. Curtis, in Scotland. Behind the castle I beat out of hazel *Gonioctena pallida*; *Apthona herbigrada*, the latter not common. I took *Dacne (Tritoma) bipustulata* on decayed oak, in a wood near the Eglwyseg rocks.

I must call your attention to the Eglwyseg rocks, which have become famous as the locality for the following insects, which may be taken there at sugar about the beginning of July: *Mamestra furva*, *M. abjecta*, *Agrotis pyrophila*, *A. lucernea*, and *A. Ashworthii*. On the summit of the Eglwyseg rocks is a pine wood, which is deserving of attention. I found a larvæ of *Geometra papilionaria*, on hazel, near Castell Dinas-Bran.

About the latter end of May and beginning of June I have taken the following beetles: *Quedius auricomus*, in moss growing in streams and waterfalls; *Stenus Guynemeri* and *Dianous cærulescens*. To obtain these, press the moss under water for a few minutes, when the beetles will come to the surface to see what is the matter. Under stones on the edge of the streams, and near the waterfalls, I have met with *Listera pubescens*, *L. punctata*, and *L. Sharpii*. Beating gorse bushes produced *Apion ulicis*, *Crepidodera rufipes*, and *Cryptophagus vini*.

I have found a single specimen of *Miscodera arctica*, together with other common beetles, on Barber's Hill.

On *Sisymbrium officinale*, always covered with dust, growing by the roadsides, by beating into the sweeping net I have obtained *Phyllotreta atra*, *Psylliodes cupro-nitens*, *Ceuthorrhynchus cyanipennis*, *C. contractus*, *C. quadridens*, &c. On *Lamium album* (white dead-nettle), by carefully beating into the net I have taken *Meligethes difficilis* freely, and *M. Kunzei* rather rare. On the leaves of the mallow I got *Apion æneum*, *A. radiolus*, *A. rufirostre*; and on *Scrophularia nodosa*, I found *Cionus pulchellus* and *C. scrophulariæ*. (Mr. Sidebotham met with *Cionis similis* and *C. blattariæ*, I believe, on Mullein.)

"On a putrid fungus, one of the *Polypori*, growing on a tree root by the road-side, going towards Valle Crucis, I once found a large number of species, viz.: *Dacne* (*Engis*) *rufifrons*, in abundance; *Agathidium varians*, sparingly; *Epuræa deleta*, freely; *Bolitobius atricapillus*, *B. exoletus* and *B. pygmæus*, freely; *B. trinotatus*, sparingly; *Scaphisoma agaricina*, freely; and several species of *Homalota* and *Gyrophæna*. On the opposite side of the road was another fungus of the same kind, in which the same species of beetles abounded. When once this fungus, which grows very generally in the neighbourhood, attacks a decayed tree it never leaves it while there is any left.

"From a turn in the Ruthin road a stile path leads to the wood behind

Valle Crucis, and by beating the hedges near here I have obtained *Telephorus fuscus* and *T. pellucidus*; and on oak behind Valle Crucis Abbey I have taken *Balaninus villosus, Telephorus obscurus, Pogonocherus hispidus, P. dentatus, Liopus nebulosus, Anobium fulvicorne, Rhynchites æneovirens, Cæliodes rufus*, and *Acalles roboris*. Beating birch produced *Polydrusus pterygomalis, Phyllobius maculicornis*, and many other common species. Under bark of decayed oak I took *Melanotus rufipes*, and my son found a specimen of *Scaphidema ænea*. By beating dead fences I obtained *Orchesia micans, Magdalinus aterrimus* and *Cistela luperus*, the latter just behind Valle Crucis. On hedges, railings, &c., I got by beating *Callidium alni, Clytus arietis, C. mysticus, Polyopsia præusta, Toxotus meridianus, Hedobia imperialis*. I took *Ceuthorrhynchus urticæ* by sweeping nettles; *Pyrochroa coccinea* under bark of decayed elm and alder; under bark ot dead ash *Rhyncolus lignarius; Opilus mollis* also under ash-bark and by beating. *Pyrochroa serraticornis* occurred on the banks of the Canal. I took one specimen of *Selenia lunaria* near Valle Crucis; and one *Anaitis plagiata* on the Ruthin road, by beating hedges. *Sesia scoliæformis* is said to occur in the birch wood behind Valle Crucis Abbey. Mr. Walkden has taken *Choragus Sheppardi* once; Mr. Sidebotham has met with *Aphodius sticticus* in dung; and Mr. Morley has taken *Hister 12-striatus* in dung-heaps.

On the same side of the river, but a little beyond Berwyn Station, I have beaten out of thorn bushes *Corymbites æneus; C. holosericeus* and *Cistela murina*, freely.

On the banks of the Dee I have taken the following, viz.: *Bembidium punctulatum, B. prasinum, B. decorum, B. tibiale* and *B. atrocæruleum*. In very shallow parts of the river I have taken *Hydroporus septentrionalis*, and *Orectochilus villosus* under stones; this species is said to swim on the surface of the water at night. I have also found *Elmis parallelopipedus*, and this species is best obtained by raising the stones out of the water for a time, and allowing the water to run off them, when, as the stone dries, the beetles, hitherto undistinguishable, begin to seek another situation. I have also found under stones on the river banks *Limnebius truncatellus* and *L. papposus*.

I have taken *Melandrya caraboides* freely in decayed trees; *Sinodendron cylindricium* common in old gate-posts, and in decayed ash, birch, maple, &c. *Brachytarsus fasciatus* and *B. varius* by beating thorn bushes; and a few *Tomicus bidentatus* under pine-bark, in a timber yard near the station. Mr. Taylor has taken *Telephorus abdominalis* on Umbelliferæ.

About 1877, I devoted some time at the beginning of August to searching for *Metœcus paradoxus* in wasp-nests. After I had carefully scoured the

district for nests I sallied forth armed with a spade and some gunpowder, and succeeded in taking eight nests of *Vespa vulgaris* and *V. germanica*, and in these I found a good series of the desired beetle; and a friend who tied the nests in a bag and took them to Manchester bred a few more from larvæ feeding in them.

VARIATION IN LEPIDOPTERA.

INTERMEDIATE FORMS.

By C. S. GREGSON.

Mr. Robson (page 26, *Y.N.* for February, 1886), in discussing this question, says he fails to see how he has been so much misunderstood, and that his point expressly was that there were intermediate forms, but that in certain cases where there "were two well marked forms of an insect, whether sexual or otherwise, the absence or rarity of intermediate forms seemed to require explanation. My argument as to sexual variation Mr. Gregson does not notice, yet this is a very important element in the case"; and further on he says, "I may be mistaken in asserting that where the sexes differ there are no intermediate forms, but I ask Mr. Gregson or any one else to point out a case to the contrary, and I ask further if there are no such intermediates, or if there are but few, why is it so?" If reference is made to my little paper on the subject, it will be seen that I say "I shall not follow Mr. Robson's interesting paper, but at once write out," &c. It may be that my hurry or stupidity, or both, has led Mr. Robson to fail to see *my point in the second species named (Papillio merope)*. This is an African species, ranging from Bonny and Cape Coast Castle to the Congo in West Africa, and to Natal in South Africa (to my knowledge) and is a yellow and black insect; the costal stroke broadens out into a black tip, with a little yellow patch in it, and continues on to the hinder angle, narrowing as it goes; underwing yellow, with three black patches, and a few marginal but very variable yellow spots; *tails long*, sometimes the tail has a dark streak down the middle, sometimes the anal blotch is continued down the side of the tail also, at other times the tail is pure yellow—these are always males; expanse (West Africa) 4¾ ins. to 5 ins. (South Africa) 4 ins. to 4¼ ins. *Papillio hypocoon*, on the West coast of Africa, so far as I know (and I have had hundreds from different rivers on that coast at different times) is always a pearly white, with a broad black-brown patch; upper portion of wing with a small light elongate patch above the disk, then a large pearly white patch across the wing (somewhat ovate), a small white spot near the tip, and two