

and laid them about in this manner in spots where the Wild Violets grew thickest, and on my return two or three days after, found six more chrysalides, and another larva just about to change. I feel assured that with such traps as these laid about in places where they are feeding, any one may secure specimens of these larvæ without trouble during the first week or ten days in June. I have never succeeded in finding them otherwise, although I have searched long and often. One of the chrysalides produced the imago on the 26th, another on the 27th of June, and others at intervals between the 27th of June, and the 4th of July. The specimen which changed to a chrysalid on the 10th of June produced the imago on the 29th, but this was kept in a cool room all the time, and was hence probably longer in perfecting than it would have been if exposed to the warming influence of the summer's sun. I should judge the ordinary duration of the chrysalis state, when left in their native haunts, to be from fourteen to sixteen days. All the specimens bred proved to be *Argynnis cybele*.

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ON SOME

LEAF-MINING COLEOPTERA.

BY V. T. CHAMBERS, COVINGTON, KENTUCKY.

It is necessary for me to correct a serious error into which I have fallen.

At page 165, v. 3, I have described a larva mining the upper surface of leaves of the White Oak (*Quercus alba*), which seemed to me to answer the requirements of Dr. Clemens' *Lithocolletis tubiferella*, which also mines the leaves of *Quercus alba*. The larva was not removed from the mine, but viewed through the integument. It seemed to me to resemble greatly, if it was not identical with, Dr. Clemens' species. The mine answered, in every respect, to that described by Dr. Clemens. At the same time I remarked the peculiar appearance of the larva, which "differs from the ordinary flat *Lithocolletis* larva as much as that does from the larva of the first or cylindrical group." In fact I should never have suspected it to be a *Lithocolletis* larva but for the resemblance, both of the mine and larva, to that of *L. tubiferella*, as described by Dr. Clemens. I did not succeed in rearing the imago, and do not know

what it would have produced. On the next page (166, v. 3), I mentioned a larva precisely like it, but in a different blotch mine, inhabiting the leaves of Willow Oaks, and another in leaves of the Black Oak, still another in the leaves of the Beech, another in the Sugar Maple, and yet another in the leaves of a species of *Desmodium*. Viewed through the integument, all of these larvæ, except the *Desmodium* miner, resembled the supposed larva of *L. tubiferella*. The miners of the Beech and Sugar Maple leaves appeared to be identical with each other and with the supposed *L. tubiferella*, but their mines differed from it, and resembled those in the leaves of the Black and Willow Oak in being more irregular blotches. The miners of the Black and Willow Oaks differed from the others by being of a bluish or smoky colour instead of yellowish-white. The miner of the *Desmodium* differed from the others in shape resembling the larva of *Leucanthiza*, as described by Dr. Clemens. But the mine and cocoon (or rather *nidus*), are indistinguishable from those of *Lithocolletis guttifinitella* Clem. and allied species of *Lithocolletis*. *These larvæ are all Coleopterous!* They remained in the mines without food from September to the latter part of April. All died except the miners of the Beech (*Fagus ferruginea*) and of the *Desmodium*. In the latter part of April these became pupæ, remaining in that condition for ten days, when the imagines emerged. The miner of the Beech proved to be *Brachys aeruginosa*, Say, as identified by Dr. Horn, as I am informed by Mr. Wm. Saunders.

The miner of the *Desmodium* proved to be *Metonius laevigatus*, Say, as identified by Mr. Johnson Pettit, of Grimsby, Ont. The larva of the *Brachys* resembles that of *Chrysobothris femorata*, as figured in Packard's Guide, p. 457, more nearly than that of *Trachys pygmea*, figured on p. 458. The head is rounded in front; the first segment is much the largest, and the larva tapers rapidly thence to the fourth segment, and thence more gradually to the apex. The larva of *Metonius laevigatus* is flattened, and is rather widest about the middle, tapering, however, more rapidly to the tail than towards the head; the first segment is largest, and the head rounded in front. It resembles the larva of *Trachys* in outline more than that of *Chrysobothris*. In examining dead specimens of all these larvæ removed from the mines this spring, I was not able to detect any trace of feet.

I have no excuse to plead for this error other than the facts above stated, and ignorance of Coleopterous larvæ.

*Hispa quadrata*, Fabr, mines the leaves of the Linden (*Tilia Americana*).

*Hispa inaequalis*, Weber, mines the leaves of *Lupatorium ageratoides*.

Both species pupate in the mine. Both identified by Dr. Horn.

DESCRIPTIONS OF

GELECHIA ADUNCELLA AND GELECHIA LABRADORICA.

BY AUG. R. GROTE, DEMOPOLIS, ALA.

In a very interesting paper published by Professor Zeller in the Transactions of the Royal Imperial Zoological Botanical Society of Vienna, under the date of July, 1868, I find the description of a North American *Gelechia*. The specimens were communicated to Prof. Zeller by Baron V. Osten-Sacken. I give here a free translation of Professor Zeller's comparative description:—

*Gelechia aderucella*, Zeller.—Allied to *G. ligulella*. The yellowish-white transverse line of the primaries, which becomes pure white on the costal edge, is removed farther towards the hind margin of the wing. It is strongly bent below costa towards the apices, and a little widened, is continued on the costal edge outwardly. The ground colour of the base is greyish-brown, so pale in hue as to allow the three black dots (two on the fold, one obliquely over the last of these outwardly at the middle of the wing), to be more or less distinctly perceivable, whereas in *G. ligulella* and *vorticella* no dots are visible on the black ground colour of the wing. This greyish-brown tint deepens, beyond the outer two dots, gradually into the broad black shade which margins the transverse line. The fringes of the secondaries are pale grey, becoming paler outwardly, and are even at base paler than the external portion of the wing itself. Beneath, the forewings exhibit beyond the middle, and in a corresponding position with the superior end of the transverse line of the upper surface, a rather distinct white spot. In size this species agrees with an average specimen of *G. ligulella*.

In the *Wiener Entomologische Monatschrift* for June, 1864, p. 200, I find a description, of which I give here a translation, of a species of *Gelechia* from Labrador, by Mr. H. B. Moeschler:—

*Gelechia labradorica*, Moeschler. ♂—Antennæ greyish-yellow with