

are similar to structures possessed by *Lithocolletis*, *Gracilaria*, and other genera, the larva of which in their early stages have mouth parts of the "first" form. A peculiarity of this "first" form is that, owing to the structure of the mouth parts, the larva possessing them can not feed down into the parenchyma like a larva having trophi of the "ordinary" form, but can only eat in the plane in which the larva lies, consuming a few of the cells of the parenchyma lying next to the cuticle, and leaving all beneath it uneaten; while a larva with the "ordinary" form eats out the whole parenchyma, or at least eats down into it. A glance at the mine of *B. ambrosiaefoliella* was therefore sufficient to show me that my suggestion as to the group to which *Bucculatrix* belongs was unfounded; the entire parenchyma was eaten out, and therefore the trophi were of the "second" form, and different from those of *Lithocolletis*, etc. On closer inspection, however, the earliest part of the mine did not appear to have all of the parenchyma eaten out. Still it did not have the appearance of a mine of a larva having the "first" form of trophi; the eaten portion did not all lie close to the cuticle, but the parenchyma was irregularly eaten into—sometimes eaten almost through—in a way that could not be done by a larva with the "first" form of trophi, but which might have been done by a very young and small larva with trophi of the "second" form, and dissection showed that this was the truth of the matter. The larva never has trophi of the "first" form in any stage.

But among larvæ having trophi of the "second" form, there are sub-groups, each of which presents important differences from the others in the structure of the different organs. Thus, so far as I have examined, all the larvæ of *Rhopalocera* have trophi differing in some respects from those of *Heterocera*, except that the larva of the Tineid, *Plutella cruciferarum*, has larval trophi resembling those of the Skippers. The Attacidae again form a sub-group. All of the other *Heterocera* again, except some of the Tineids to be presently mentioned, form another sub-group. These "other Tineids" comprise *Cemiosoma*, which stands alone; *Tischeria*, which also stands alone in some respects, whilst in others it resembles *Bedellia*, *Antispila*, *Aspidisca* and some others which are more or less similar to them, though differing from them in some respects, and among these is *Nepticula*. All of these I class in a single sub-group of larvæ. The larval trophi of *Bucculatrix* more nearly resemble those of *Nepticula* than any of the others. Mr. Stainton (not mentioning the larval trophi) has already written of *Bucculatrix*: "This genus offers several points of

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