

seasons further or hinder the advent of insects, is undoubtedly true, but as a general rule their time-table is quite as exact as the migratory birds.

I think it may be problematical as to whether the pupa remains beneath or upon the surface of the ground during the winter. My experiments, after having made the most natural provision at hand, have resulted in the pupa appearing upon or near the surface, and I would add that I find by my records that a larva obtained the previous season to that mentioned in the article already referred to, transformed in the same manner, the moth appearing on the 28th of May. My theory, in the absence of more essential data, is that the pupa of this moth, in its natural state, seeks the surface and finds security under the winter leaves. I have read with much pleasure what Mr. Hamilton writes with regard to this question, but it seems to me that the only satisfactory test, other than natural, would be in the use of soil common to the growth of the hickory, as that which is the most likely habitat of this species at this period of its history, giving to the pupa when thus conditioned the full service of all climatic changes. The provision as recommended by Mr. Hamilton is somewhat in agreement with what I have stated. He writes: "Take two parts of sandy loam, such as is used by plasterers, and one part of black friable soil from the woods, mix together * * and when the larva disappears cover over with a layer of moss, and then the pupa will not come to the surface." This effectually imprisons the pupa, and it becomes a matter of curious enquiry if the larva, in order to transform, could have selected a spot similarly conditioned.

ON TROGODERMA ORNATA, PHYSONOTA UNIPUNCTATA
AND TANYSPHYRUS LEMNÆ.

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Trogoderma ornata. Since the publication of the remarks in vol. 15, p. 91, more has been learned concerning this pest. That it disclosed without entering the earth was eventually made evident by several of the beetles being found in a large, close box, just emerging. Why they should disclose in a large box and not in a small one was not very obvious. At last the thought occurred that hygrometric differences in food and atmosphere might account for it. Having some of the larvæ reared in a small wooden pill box, at the usual time for pupation some of these were placed