

partial breeders in our territory. How far north the permanent residence of the Cotton Moth obtains is not yet known. I am the first to point out that it is winter-killed over much of the territory which its summer migrations cover as a moth. I have seen how the migration takes place. The moths crawled out in numbers on my plantation during one or two days, and I anticipated a third and more destructive brood of caterpillars. The next morning not one perfect moth was to be seen. O the ground crawled a few cripples with unexpanded wings, to be killed by the sun and the ants. There was no third brood; the moths had migrated, been swept by the winds to the north during the night. I have alluded to the influence of the winds upon the time of arrival of the Cotton Moth on the Atlantic coast.

The "original" part of my work on the Cotton Worm was my discovery that it hibernated in the moth state; that it was winter-killed over a part of the territory it occupied both as larva and moth during the summer; that in the south it had no other food plant than cotton. I accounted for the moths in Canada in the fall by considering them wind-migrants. No alternative food plant is known in the north. In the south, as I originally stated, the worms migrate from eaten-out cotton fields, leaving the weeds and vines untouched, in search of fresh cotton. I identified the insect with the South American *Aletia argillacea* of Hübner, and stated my theory which I arrived at from a study of the habits of the moth and from a knowledge of the cotton plant itself, which like its parasite is not indigenous with us. Both have changed their normal condition. Man brought the cotton plant, which under culture and in our climate has become an annual, itself winter-killed in part, but so more productive of cotton; the winds brought the moth and the cultivated cotton fields supplied abundant food. I pointed out the yearly seasonal spread of the moth from south to north.

But to leave the special subject of the Cotton Worm, which is interesting by itself as illustrating one of the sources of the southern element in our Lepidopterous fauna, and to proceed with our analysis. The third element in our fauna is that which is North American *per se*, that is, which is descended from a pre-Glacial North American fauna, or which has become so modified from its original source as to be classed as North American. Here is a very difficult study in a consideration of the characters of our Lepidoptera. I have taken *Cressonia juglandis* as a