

1882, in company with Mr. Koebel, I discovered eggs upon ratoon cotton, that proved to be those of the *Aletia*, and this year, near Albion, I saw a cotton moth in the pine woods, evidently having passed the winter as a moth. These facts settle the question—the moth hibernates in Florida, possibly in Louisiana and Texas, and at the beginning of warm weather—by February 15th—seeks “ratoon cotton.” It flies from field to field, laying but few eggs at a place, until it exhausts its stock of eggs, about four hundred, when it dies, often many miles away from its winter haunt. These eggs hatch, the worms feed for three weeks, “wrap up,” and in about six weeks from the appearance of the first moth a new brood appears, to repeat the history every month until frost, when the sixth or seventh brood of females seek sheltered nooks to spend the winter. Did all the eggs hatch, and have no mishap, by September the increase would be four trillions, and cotton would be a lost crop, but the chances are usually largely against such a possibility. Two wet summers following two dry winters would probably increase the number of wintering moths and decrease the insect foes, and result in a bad cotton year. A dry summer is disastrous to the *Aletia*, as the eggs dry up and fail to hatch; the worms lose vitality, and are easily swept from the leaves, or they “web up” prematurely and fail to transform. The moths are weakened by the heat and lay fewer eggs, while the insect enemies greatly increase. Often what is feared will be a “caterpillar” year changes by reason of a drought in July, as it did last year.

“Were it not for the insect foes of the cotton worm very little long staple cotton would be raised in Florida, and I shall briefly enumerate our friends.

*Wasps*.—Several of these are savage assailants of the worm as it nears the time of webbing up, biting out a piece from the side of the torpid larva, it sips at the exuding juice, and flies away in search of others, or it attacks the cocoon wherever exposed. The little “Guinea wasp” is the most active in this good work.

*Ants* are extremely useful in disturbing the young worms; once off the plant the larvae have little chance to regain it.

The *Mantis* (praying bugs), the mosquito hawks, spiders, robber flies (*Asilids*) and *Tachina* flies attack the worms. Several of our birds are beneficial, and bats are especially valuable, as they pursue the early (hibernated) moths.

I have my doubts if the use of London Purple and other spraying mixtures will ever be available, as the plants are so irregular in growth, but if a low-growing stock could be secured, then it could be treated like the short staple cotton. If the Legislature would compel cotton growers to destroy all old cotton stalks by January 15th of each year, appointing responsible officers in each precinct to see that the law was enforced, for even five years, I believe the cotton fly would disappear, or lose its character as the cotton moth, unless it has an alternate food plant, and that I have never found, nor heard of in Florida. This plan seems feasible, and, apparently, needs but a trial to insure success.