

Mr. Smith, referring to the climbing cut-worms, said that he had been frequently called on to determine for correspondents moths described as having been bred from climbing larvæ. He had received several such from Mr. Slingerland. He questioned if they did not adapt themselves to differing conditions, sometimes assuming the climbing habit, while perhaps normally working on the ground.

Mr. Howard reported that the species *subjuncta* and *scandens* had been repeatedly sent in this year as climbing cut-worms.

Mr. Sirrine asked if all cut-worms did not climb as young larvæ, giving his experience with cabbage cut-worms as sustaining that view.

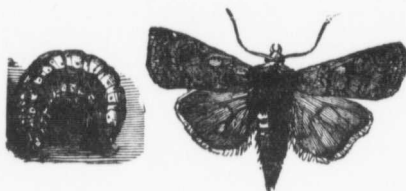


Fig. 34.

Mr. Smith said that this is the habit of *Carneades messoria* Fig. 34, on onions. In this connection he urged the value of personal observation to impress one with the true significance and importance of the working habits of insects. In illustration of this he referred to his having recently witnessed a grasshopper invasion in the west, which had brought to him a realization of the possibilities of this insect to which before he had been a stranger. He said also that the

Hessian fly, commented on by Mr. Davis, had proved very much more numerous in New Jersey this year than in years recently passed.

Mr. Lintner said this fly was also very abundant in western New York.

Mr. Howard said this is distinctively a Hessian fly year, and that the division had recently issued a circular to facilitate answering the numerous inquiries received on the subject.

The following paper by Mr. Chittenden, was read by Mr. Sirrine:

#### HERBIVOROUS HABITS OF CERTAIN DERMESTIDÆ.

The Dermestidæ, as is well known, feed chiefly upon dried animal substances. Certain species, however, are reported to have injured vegetable material, and a few recorded instances of damage of this character are cited. Until very recently the various species of household Dermestidæ had not been suspected of actually breeding in other than animal substances, but the experiments of the writer indicate that they subsist also on a vegetable diet.

The larva of *Attagenus piceus*, or black carpet beetle, was received in cereals from various sources, and was finally brought to the attention of the writer in such manner as to lead to a suspicion that it might feed, at least occasionally on vegetable substances. Adult insects were confined in a jar of flour and meal, and their progeny were found to thrive upon this material. This species was also found to breed in timothy seed, and incidental mention is made of serious injury to bolting cloth by it in a mill at Georgetown, D. C. A brief review of the history of this insect in America, where it has been known since about 1806, is given, and instances of its reported occurrences in granaries are cited.

*Trogoderma tarsale* Melsh., a common museum pest, was found to infest flaxseed, castor beans, and cayenne pepper that had been on exhibition in the museum of the United States Department of Agriculture, the larva being reared from the egg deposited in these substances and the adults having been bred from other larvæ feeding on them.

An unknown and evidently recently imported species of *Trogoderma* was stated to be living in flaxseed, castor beans, and silk worm cocoons with the above-mentioned species, and in red-clover seed. This species is believed to have been introduced at Washington in the silkworm cocoons. It has been taken in New Mexico and will probably be found to have established itself elsewhere in the United States.

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