

# ENTOMOLOGICAL NEWS

AND

## PROCEEDINGS OF THE ENTOMOLOGICAL SECTION

ACADEMY OF NATURAL SCIENCES, PHILADELPHIA.

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VOL. IV.

JUNE, 1893.

No. 6.

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IN the last number of the NEWS was published an interesting account of the early history and organization of the American Entomological Society, in which it was stated that its first president was Dr. John L. LeConte. It will no doubt be of great interest to our readers, especially those interested in Coleoptera, to see a portrait of the man who did so very much to advance our knowledge of that order of insects. Dr. LeConte died on Nov. 15, 1883, aged 58 years, and was succeeded by Dr. G. H. Horn as President of the American Entomological Society and Director of the Entomological Section of the Academy of Natural Sciences of Philadelphia. An interesting biographical sketch of Dr. LeConte is given in Vol. XI of the Transactions of the American Entomological Society.

THE journal of the New York Entomological Society, which has just emerged from its chrysalis condition, makes a very fine appearance in its first number, and we wish it long life and much prosperity, and hope that the "*tumble-bug*" may never cease rolling. The first plate is very fine, and the journal is well printed, and the articles are interesting and of value. An American journal of this character has been badly needed, and will help take the pressure of too much manuscript from the NEWS, which will facilitate the early appearance of papers.—ED.

pilations to a large extent, especially in the case of the Blackberry and Raspberry pests. The bulletins are good, and are extremely useful to entomologists; but there is just a question whether it is the best plan to issue as a Station Bulletin a work treating of insects which have not been, and in some cases never will be injurious in the territory embraced by the State for which the Report is issued. The average farmer wants to know, and quite naturally, what to do with the pests that are troublesome in his land, and will not wade through a large pamphlet the bulk of which does not concern him. We all have our ideas of the proper, and Mr. Webster may be nearer right than I am, but I certainly would not have included *Grapta comma* among the injurious Blackberry insects on the faith of a single larva and one chrysalis found on vines in the woods. Complications of this character have an undoubted value; but they are really adapted for general works like that of Mr. Saunders, on Fruit Insects, rather than for Station Bulletins.

The Bulletin on Wheat Insects is of much more vital interest to the farmers of Ohio, and Mr. Webster speaks with more positive knowledge on this subject. It is the underground pests that are specially considered, and this brings me to another repetition of the experience of the New Jersey farmers, that where they have used the commercial fertilizers, there insects of this character do not trouble them. One of the largest growers of Onion sets in the State told me recently that he never had the slightest trouble with the Onion maggots so long as he did not use the barnyard manure, and that he had become so firmly convinced of the value of these chemical manures as insecticides that he used them exclusively. This is one of the men that really make farming pay, and his experience is suggestive.

**Colorado Insects.**—Some of these are treated in Bulletin No. 19 of the Colorado Station by Mr. Gillette, and the Bulletin shows that its author has not forgotten how to do good work. Quite a variety of species are treated, none of which call for special comment, save to suggest that fig. 9, of *Trypeta canadensis*, would look a little better if it had legs. We have always been under the impression that all insects had *some* legs, though in some collections the matter is left in doubt, and in figures, the Lepidoptera seldom have more than two. Mr. Gillette recommends the application of arsenites as a remedy for two species of leaf rollers that he has found injurious.

**The Squash Lady Bird.**—For some years *Epilachne borealis* has become steadily more abundant in the Eastern States, and has in some localities become a serious pest on Cucurbs of all kinds. In New Jersey it seems to have been more troublesome on the Watermelon than on others of the vines, but I have found it abundant on Pumpkins, Squashes, Melons and Cucumbers as well. In the April number of the News I figured the mouth parts of this species in comparison with those of *Coccinella 9-notata*, to show the differences in the mandibular structure more particu-

larly. The eating done by this beetle is somewhat peculiar in that it apparently marks out its work when it starts feeding, and does not exceed the portion at any time, preferring to go to another point and start a fresh layout.

In the accompanying figure the characteristic injury is well shown. The beetle gnaws through the epidermis on the upperside, in the form of a more or less well marked semicircle and within this it feeds, sometimes



Fig. 1.—Eaten leaf.

only the upper surface, sometimes leaving nothing, but more frequently allowing a skeleton to remain. How many of these patches are eaten by one beetle I cannot say; but as they are long lived, probably a considerable number, since they are at all times feeding.

Somewhere in mid-Summer the insect lays its eggs on the underside of the leaf, in little patches of from 15 to 20, or more rarely from 30 to 40.

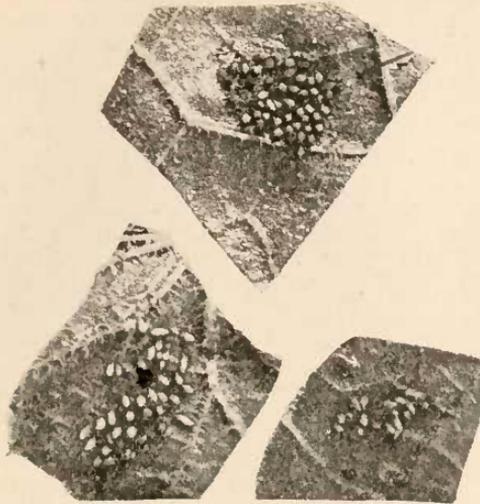


Fig. 2.—Egg patches.

These eggs are yellow, and resemble the eggs of the potato beetle quite closely; the accompanying figure shows their general appearance fairly well. The eggs hatch in about a week, and a little, spinous, yellow larva, makes its appearance, not unusually signaling its entrance into the world by eating into its helpless relatives who have not yet emerged from the egg, showing perhaps a remnant of the ancestral carnivorous habit. The larva feeds indifferently on the upper or underside of the leaf, but more commonly on the latter, and eats the epidermis only, and not the entire leaf tissue. The infested leaves dry up, wither and die.

Late in July, or in August, the larvæ become full grown, and then appear as shown in the figure. The spines when examined under a moderate power of the microscope

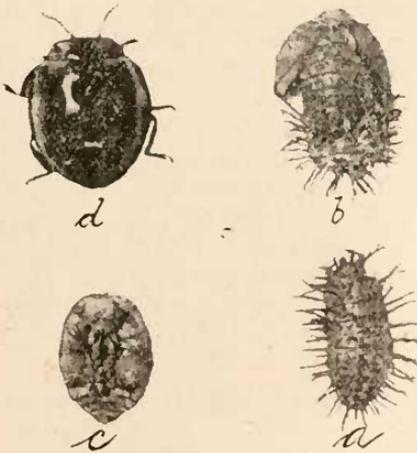


Fig. 3.—Larva, pupa and imago.

are very interesting objects, branching from main stem, the branches themselves jointed as in some of the urticating larvæ. The larva attaches itself by the anal extremity and changes to a pupa, much as do the other Coccinellidæ, and this stage lasts only a few days. The beetles, after they emerge, feed very little, if at all, and soon disappear, finding Winter quarters under rubbish, in outbuildings or barns, or in fact wherever there is a crevice large enough for them to crawl into.

As to the remedies for this species, these are very simple: the insect feeds entirely exposed at all periods of its life, and in the imago stage on the upperside of the leaves, so that the arsenites can reach them without any trouble at all.