COCCINELLA TASSMANI.

This beetle may be called here the 'Yellow-spotted Ladybird.' All the yellow-spotted species occur in other parts of the world, but this native ladybird has become very valuable to farmers and gardeners by preying upon the aphid pests that would otherwise destroy their crops of cucumbers, melons, etc. I have seen it at work at places, near the "woolly blight" of the apple, and Mr. G. W. Edgerton, of Hamilton, informed me that he had observed it on some apple trees in his orchard doing the same work.

DESCRIPTION OF THE PERFECT BEETLE.

Size, about $\frac{1}{2}$ an inch; of almost globular oval, convex, glossy; colour black, ornamented with eight, more or less angular, yellow spots; two of these are in 1-5th of the former length, and the end of the pupa remains within it. On the tenth or twelfth day the perfect beetle emerges from the puparium, so that in less than a month the insect has undergone all its metamorphoses.

HABITS.

This native ladybird has become very valuable to farmers and gardeners by preying upon the aphid pests that would otherwise destroy their crops of cucumbers, melons, etc. I have seen it at work at places, near the "woolly blight" of the apple, and Mr. G. W. Edgerton, of Hamilton, informed me that he had observed it on some apple trees in his orchard doing the same work. It has also been observed attacking the woolly aphis of the apple. The above is a good record for one insect, so good indeed that one might suppose that all farmers, fruitgrowers, and gardeners would study the descriptions of its different stages, so that they might recognize their little friend. This step is necessary, as in more than one instance I have caught people in the act of destroying the larvae in the belief that they were dealing with a new pest.

COCCINELLA ll-PUNCTATA.

This European beetle is popularly known as the 'Eleven-spotted ladybird.' We do not know how or when it was introduced.

DESCRIPTION OF PERFECT LADYBIRD.

Nearly quite oval, about $\frac{1}{6}$th inch in length by $\frac{1}{6}$th inch in breadth; the male rather smaller than the other sex. The head is black, with two pale yellow dots. The thorax also is black, with a large irregularly-dotted yellow spot near each front angle. The hind body or elytra, is red or orange-coloured, and bears eleven black spots, one of which, at the middle of the base, seems duplicated. The underside, legs, and antennae are almost wholly black. The female usually deposits the ova on the day following the union of the sexes.

EGGS.

The eggs are clear yellow, elongate oval, about $\frac{1}{6}$th of an inch in length. Each female lays about twenty-four eggs, generally in clusters of eleven and thirteen, attached endways to a leaf or twig. On the third or fourth day the young larvae come forth and begin feeding.

LARVA.

First stage, elongate, tapering towards both extremities, with six jointed legs, each of which is provided with a claw-like appendage; body sub-depressed, 1-24th inch long, colour smoky brown, with numerous darker raised spots and many erect pale hairs.

Second stage—full grown, 1-3rd of an inch long and about 1-10th breadth, appearing nearly quite oval, but with the segments transversely convex. Head shining, half the width of the following segment. Body variegated, of a dark slate or brown colour.

The sides of segments 2 to 10 are almost similarly marked and prominent; the apical (thirteenth) segment is only half the breadth of the preceding one. Legs moderately stout, without feet, terminating with small claws. The larva is full grown in about a fortnight.

PUPA.

Pupa somewhat about one-sixth of an inch in length by one-twelfth in breadth, sub-elliptic, curved above. Its hinder portion enveloped in the larval skin, which is firmly attached to a leaf or branch; colour, smoky brown, the latter hair forming many large, irregular spots. It passes about a week in the inactive pupal stage.

The beetle, just after it quits the pupal envelope, is often quite yellow and unspotted above, and then the head, thorax, and legs, as well as a row of large spots along the sides of the abdomen, are blackish. The insect goes through all the different stages of its existence within a month.

HABITS.

This beetle is a very valuable importation. It has the power of reproducing itself rapidly, and is the inveterate enemy of aphid pests. On one occasion, whilst studying its life history, I visited a large nursery garden in which were thousands of young orange and lemon trees, all of which were badly infested with the black aphis, and appeared sick and unhealthy. On visiting the place a few weeks afterwards the trees presented a totally different aspect. They were clean and healthy, free from the aphis pest, and looked beautiful. The change had been chiefly affected by this ladybird.

There were also, it is true, some larvae of syrphus flies at work, but these were not numerous enough to make much impression on the aphis multitude. The lady-bird also destroys what gardeners call the green fly, the aphisid on the plum, the carafliox, the rose, coryantia, and the stock, and gardeners are aware that they would seldom succeed in growing in their orchard without the aid of this friendly beetle. It has also been observed attacking the woolly aphis of the apple. The above is a pretty good record for one insect, so good indeed that one might suppose that all farmers, fruitgrowers, and grocers would study the descriptions of its different stages, so that they might recognize their little friend. This step is necessary, as in more than one instance I have caught people in the act of destroying the larvae in the belief that they were dealing with a new pest.