

5.—THE PEAR-TREE SLUG-WORM.—*Selandria cerasi*, Curtis.

In 1874, as Mr. Saunders relates in his very complete account of this insect in our Report for that year, the slug-worms were unusually abundant on pear-trees in the neighbourhood of London, Ontario, in many cases destroying the foliage so thoroughly, that "they looked as if they had been scorched by a fire, every leaf in some instances dropping from the trees, so that for a time they were as bare as in mid-winter." Such a visitation, happily, is not common; still these disgusting creatures are usually to be found more or less every year on our pear and cherry trees. In Scotland, in 1880, they appear to have been numerous and destructive both at Dalkeith and Dumfries.

Fig. 50.



A leaf attacked by slug-worms.
a, Magnified specimen.

The slug-worms feed on the upper surface of the leaves of the pear and cherry, eating away the whole of the soft substance of the leaf, so that the veins and the skin of the lower side are all that remain. They may be recognized, when at their work of destruction, by their blackish or bottle-green colour, together with their peculiar shape, and the covering of slime or moisture exuding from their skin, which gives the worms the appearance of a slug, or rather that of a lump of wet black dirt fallen on the leaf and run together at one end. They may be at once recognized also, when very numerous, by their disgusting and sickening smell.

Miss Ormerod relates that, in England, "the sawflies appear in July, and deposit their eggs on or in the upper side of the leaf; these eggs are oval, and hatch in a few days. The larvæ are of the lumpy shape figured above, much the largest at the back of the head; they are furnished with ten pairs of feet—that is, one pair on each of the three segments next to the head, and a pair of sucker-feet on each of the other segments, excepting on the fourth from the head and the tail segment, which are footless. When feeding, they keep the end of the tail a little turned up. In four or five weeks these slug-worms arrive at their full growth, which is about half an inch in length, cast their dark bottle-green skins, and appear as yellow or buff caterpillars, free from all shine, and transversely wrinkled, instead of being perfectly smooth. In the instance noted this happened at the beginning of October, and the caterpillars shortly after left the leaves and went down into the ground, where they spun an oval brown silken cocoon covered outside with earth, from which the sawflies came up in July in the following year. The female fly is of a shining black, tinged with violet; the wings often stained with black, with dark nerves, and a dark brown mark (the stigma) along the fore edge. The four anterior legs are brownish ochre, and the others are more or less of that colour, but generally much darker; and the thighs, or at least the base, are pitch colour."

In Canada these saw flies are double-brooded. The winged flies appear in May; the eggs are deposited singly in little slits cut for them in the skin of the leaf by the ovipositor of the female, and these produce a brood, coming out in the perfect state in July; from which a second brood arises, which is full grown in September or October. These remain in the ground during the winter, and for the most part appear (as above mentioned) fully developed in the following May; but some remain in the ground unchanged till the following year.

As a prevention, Miss Ormerod recommends the same plan as in the case of the gooseberry saw fly, viz., to skim off the surface soil beneath the infested trees, and get rid of it so as to destroy the contents. The cocoons are stated to be at a depth of from one to three or four inches below the surface, according to the nature of the soil. She suggests as remedies, (1) Shaking the flies down from the trees early in the morning or late in the evening (or at whatever time it was found they were collected on the leafage), and catching them on boards covered with wet tar, or cloths, taking care that they were destroyed before they could escape; (2) Dusting with caustic lime two or three times; (3) Syringing with tobacco water, strong soapsuds, etc.; and (4) Showering the trees with a solution of hellebore.