

Dock Sawfly¹

By Carrie R. Foss, Plant Clinic Diagnostician
and Arthur L. Antonelli, Extension Entomologist,
WSU Puyallup

Dock sawfly larvae (Fig. 1) normally feed on the weedy docks, sorrels, and knotweeds. However, the larvae also burrow into apples to overwinter and can cause considerable fruit damage. Injury to apples appears as small, round holes on the surface of the fruit (Fig. 2). After a few days, holes develop slightly sunken, brownish rings around them, which may be surrounded by larger rings of discoloration. Usually, these holes are most numerous at the calyx and stem ends, or where the apple may touch a leaf or another apple. However, the holes may occur on other areas of the apple. Inside the apple, the larvae burrow as deep as one or two inches. The burrows have a somewhat irregular outline and may be either curved or straight. There may be one to several burrows within one apple regardless of how many larvae are present. The larvae pupate within the apple fruit or in the stems of their plant hosts. The open burrows allow entrance of decay fungi that may result in rotting of the fruit.

When full-grown, the larvae are slender and hairless with a finely wrinkled olive-green or blue-green skin and several conspicuous white tubercles. Dock sawfly larvae have seven pairs of prolegs. After the last molt, the larvae become bright apple-green and shiny. The dock sawfly may cycle through four generations in a year, but only the larvae of the last generation bore into apples and cause damage.

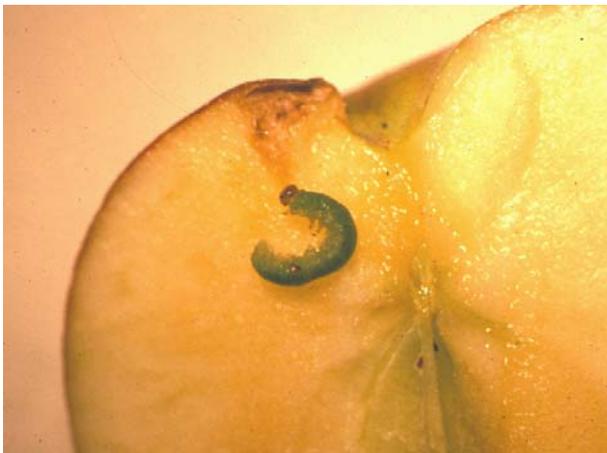


Fig. 1. Exposed dock sawfly larva. By Dyvon Havens.



Fig. 2. Dock sawfly larva and hibernation tunnel in fruit. By A.L. Antonelli.

¹ Sawflies are not really flies, they are primitive members of the bee, ant, and wasp groups (Hymenoptera). They are unusual, as their larvae are caterpillar-like, resembling the young of moths or butterflies. Most hymenopteran larvae are legless or maggot-like. Distinguishing true caterpillars from sawfly larvae is fairly easy: True caterpillars bear abdominal prolegs in addition to their thoracic legs. These prolegs are armed with hooks or crochets and can number from 2 to 5 pairs, depending on the species. Sawfly larvae prolegs range from 7 to 8 pairs on those species that have them, and their prolegs do not exhibit crochets.

There are no chemical treatments recommended for management of dock sawfly in apple orchards. It is recommended that the orchard be maintained free of weeds, particularly dock, knapweeds, and other hosts of this insect pest. Do not allow heavily fruiting apple boughs to touch the ground. Wrapping the trunk with cotton or a sticky substance during the latter part of August until after harvest may yield some success.