

# Apple pith moth *Blastodacna atra*

The apple pith moth is an occasional pest of apple orchards and fruit tree nurseries in Eurasia. Larvae feed inside the twigs and heavy infestations may kill shoots and blossom trusses. With small populations detected in New England, this exotic moth poses threats to Michigan's apple orchards and fruit tree nurseries.

[Michigan risk maps for exotic plant pests.](#)

## Systematic position:

Insecta > Lepidoptera > Elachistidae > *Blastodacna atra* (Haworth)

## Global distribution

Europe and temperate Asia (Carter 1984). The apple pith moth is a persistent orchard pest in Northern Europe including England, Holland, Germany, Norway, Sweden, Denmark and Poland (Miles 1930).

## Quarantine status

This insect has been found in Connecticut, New Hampshire, Massachusetts and Maine (CDFA 1993). It is listed as an organism of export significance by APHIS-PPQ Export Certification Unit (CAPS).

## Plant hosts

Apples (*Malus*) are the primary host. Damage to pears also have been documented (Miles 1930).

## Biology

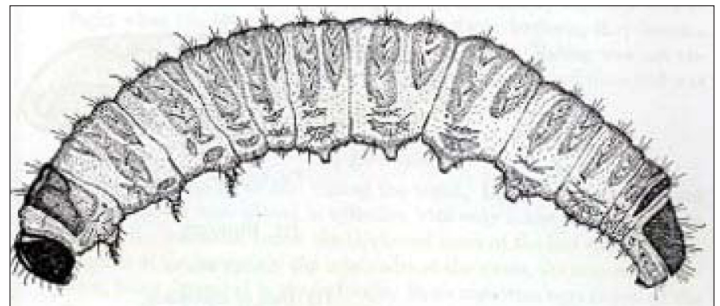
A female moth lays eggs singly usually near the base of the buds on twigs of the host tree in July and August. After hatching, larvae burrow into stem tissues of the twigs and eat out a cavity under the bark. The larvae continue to feed inside the twigs from August through the following May. Heavy larval infestations may kill growing shoots and blossom trusses. A fully grown larva tunnels its way to the surface of the twig near a bud or below a blossom truss, and eats out a circular hole in the bark through which the adult can exit. Pupation occurs in the stem from May to June. Adults are active from late July to August. One generation develops per year.

## Identification

- Adult: 10 mm wingspan; forewings narrow and blackish; hind wings dark grey; head black.
- Larva: up to 8 mm long; body covered with bristles; mature larva has a brownish-pink body with a dark brown head and body plates.
- Pupa: 5-6 mm long; golden brown with a dark head.



Adult. (I. Kimber, Bugwood.org).



Larva. (Illustration from Miles 1930.)

## Signs of infestation

- Die back of the shoots and blossom trusses caused by larval feeding. These injuries are most noticeable in May and June when trees have well developed leaves and blossoms.
- If the attacked shoots are examined, you may find a pinkish caterpillar inside the stem. Larval entrance holes may be located in the twigs. Rust-colored frass may be left behind around the entrance.

## Management notes

The apple pith moth is a more frequent pest of young plantations and is not common in established plantations (Masse 1954).

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**Economic significance to Michigan**

The apple pith moth is only an occasional problem in England, but its infestations in orchards and nursery stock are common (Miles 1930). The apparent establishment in New England suggests that this exotic moth may also establish in Michigan’s apple orchards and fruit tree nurseries.

**Likely pathways of entry in Michigan**

Imports of apple nursery trees from Eurasia.

\*\*\*If you find something suspicious on a susceptible host plant, please contact MSU Diagnostic Services (517-355-4536), your county extension office, or the Michigan Department of Agriculture (1-800-292-3939).\*\*\*



Damage to apple twigs caused by apple pith moth larvae. (Photo from Miles 1930).

**References**

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