

Plum fruit moth *Cydia funebrana*

The plum fruit moth is a pest of stone fruits in Europe and Asia. The larvae tunnel into fruits reducing marketable yields. This exotic insect is a concern for Michigan's stone fruit producers and tree fruit nurseries.

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

Other common names

red plum maggot, plum fruit maggot

Systematic position

Insecta > Lepidoptera > Tortricidae > *Cydia funebrana* (Treitschke)

Global distribution

Europe: Albania, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Sicily, Spain, Sweden, Switzerland, UK, Yugoslavia. **Asia:** China, Cyprus, India, Iran, Syria, Turkey, former Soviet Union. **Africa:** Algeria.

Quarantine status

Cydia sp. has been intercepted nearly 6,700 times at U.S. ports of entry between 1995 and 2003 (Venette et al. 2003) although no specimens were identified specifically as *C. funebrana*. This insect is not known to be established in North America; it has been a target for the national CAPS survey in the United States (USDA-APHIS 2007).

Plant hosts

The moth feeds primarily on stone fruits (*Prunus* spp.) including apricot (*P. armeniaca*), cherry (*P. avium*), peach (*P. persica*) and plum (*P. domestica*).

Biology

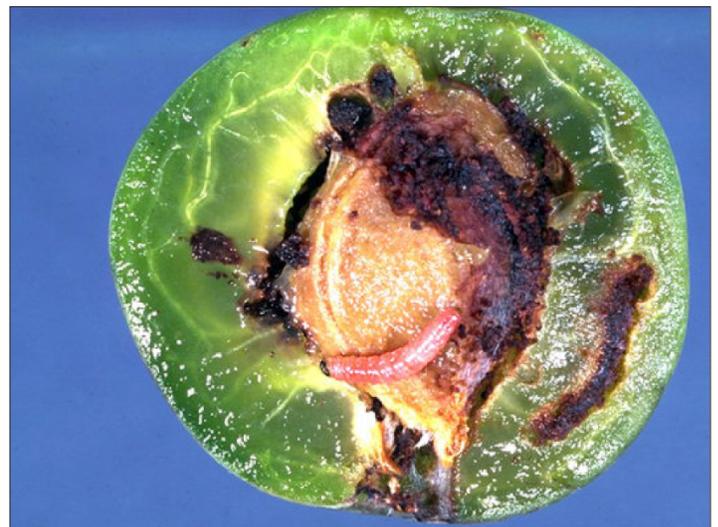
A female moth lays eggs singly on the underside of the fruit. After hatching, the caterpillar tunnels into the fruit and feeds around the seed. The mature caterpillar exits the fruit. Pupation occurs in a cocoon spun in various settings such as dead wood, under tree bark and in soil. One to three generations develop per year.

Identification

- **Adult:** 10-15 mm wingspan; forewings dark brown with poorly defined blackish markings; hind wings brown.
- **Larva:** Up to 12 mm long; body pink; head dark brown.
- **Pupa:** Light brown; contained in a cocoon.
- **Eggs:** Flattened and whitish; laid singly.



Adult resting on a plum leaf. (Photo: R. Coutin / OPIE)



Larva in a plum. (Photo: R. Coutin / OPIE)

Signs of infestation

- Presence of eggs on fruit and fruit stalks.
- Entry holes on fruit surface.
- Dissecting a suspicious fruit may reveal larvae or frass in flesh near the seed.
- An infested fruit may show symptoms such as discoloration, gummy droplets oozing out of the caterpillar's entry hole, premature ripening and fruit drop.

Gummy droplets oozing out of larval entry holes in a plum. (Photo: R. Coutin / OPIE)



Potential economic and environmental impacts to Michigan

This moth is regarded as a major pest of stone fruits in Europe and Asia, and it may impact stone fruit production and tree fruit nurseries if introduced into Michigan. Venette et al. (2003) have forecasted that Michigan is likely to provide suitable habitats for the plum fruit moth based on its climate and plant host availability.

Likely pathways of entry to Michigan

Imports of stone fruits from Asia and Europe.

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).

Management notes

For surveys of the plum fruit moth, eggs, larvae, and pupae may be visually inspected on host plants (Venette et al. 2003). Light and pheromone traps may be used to monitor adults, although they may also attract many other species (Venette et al. 2003). In Europe, sex pheromones have been used for mating disruption of plum fruit moth (Venette et al. 2003).

References

Alford, D. V. 2007. Pests of fruit crops. Academic Press, Boston.

INRA-HYPPZ. *Cydia funebrana* (Treitschke). French National Institute for Agricultural Research. (<http://www.inra.fr/hyppz/RAVAGEUR/6cydfun.htm>)

RHS. 2009. Plum moth (*Cydia funebrana*). Royal Horticultural Society. (<http://www.rhs.org.uk/advice/profiles0406/plummoth.asp>)

USDA-APHIS. 2007. National CAPS committee fiscal year 2004 target pests. (http://www.aphis.usda.gov/plant_health/plant_pest_info/pest_detection/pestlist2004.shtml)

Venette, R.C., E.E. Davis, M. DaCosta, H. Heisler, and M. Larson. 2003. Mini risk assessment: plum fruit moth, *Cydia funebrana* (Treitschke) [Lepidoptera: Tortricidae]. (http://www.aphis.usda.gov/plant_health/plant_pest_info/pest_detection/downloads/pracfunbranapra.pdf)

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