

Apple-and-Thorn Skeletonizer



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During certain years, apparently following very mild winters, the apple-and-thorn skeletonizer, *Eutromula pariana*, can be a serious pest to home orchardists. This insect, of European origin, is now found throughout many parts of the United States and Canada, including all fruit growing areas of Washington.

Damage

The larvae of this moth attack and seriously damage leaves of certain types of deciduous trees. Several successive years of severe damage can affect tree development. Apple is the preferred food plant, but larvae will also infest crabapple (including flowering crabapple), hawthorn, pear, cherry, and plum.

Damage to the leaves is characteristic. Young larvae feed on the lower leaf surface, leaving the epidermis and veins. This produces a “skeletonized” leaf. The older larvae usually tie leaves together with silk, creating a somewhat rolled appearance. Specks of frass are found in the webbing. If disturbed, or when their food supply is depleted, larvae drop on a silken thread to lower leaves or to the ground.

Description and Life History

The apple-and-thorn skeletonizer *adult* is a small, dark, reddish brown or grayish brown moth. Often the front wings are marked with wavy black lines. The body is about 3/16-inch in length, and the wing span is 7/16-to 1/2-inch wide.



Skeletonizer damage



Adult moth



Small larvae



Large larva



Pupa in leaf litter

The *larvae*, when newly hatched, are 1/32-inch long, and pale yellowish-green. As they mature, dark tubercles (bumps) along the body become raised and more conspicuous. Fully grown larvae are between 3/8- and 1/2-inch long.

The *pupae* are dark brown and about 3/16-inch in length. Numerous sites used for pupation include host tree leaves, cracks in bark or on buildings, or debris on the ground.

The apple-and-thorn skeletonizer overwinters as either pupa or adult. After mating, females deposit eggs on host trees. This usually occurs from late April to June, depending on weather. The moths, active in daylight, are attracted to a variety of flowers. Eggs hatch in a week to 10 days. Upon emerging, the larvae wander until they find a suitable place to feed. Development of larval instars (stages) can be completed in 4 weeks or less.

After the larvae have matured, they locate a suitable site, spin a cocoon, and pupate. The pupal stage lasts 10 days to 2 weeks in the spring and summer, but may last several weeks longer during cooler weather later in the year. There can be up to three generations per year in Washington.

Control

A number of natural enemies attack the apple-and-thorn skeletonizer. However, they are not always effective in significantly lowering the population. Therefore, during heavy outbreak years, chemical control may be the best means to keep this insect in check.

Commercial orchardists seldom have problems with the apple-and-thorn skeletonizer. Control measures they use for other pests also control the skeletonizer.

A year of extensive insect damage followed by a mild winter sets up ideal conditions for this pest. As new leaves unfold, moths will be laying eggs, and emerging larvae will be most vulnerable to insecticides. Begin any control procedures at this time. Once the insects are protected by silken threads, spraying is not totally effective. *Bacillus thuringiensis* will control caterpillar forms.

Thorough coverage of lower leaf surfaces is important in controlling this pest. If control of first generation larvae is effective, the numbers of insects in later generations will be reduced. Inspect leaves for further insect damage several days after spraying. Then decide whether additional chemical treatments are needed.

Bee Poisoning: Do not spray during bloom, but apply sprays before or after the bloom period.



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Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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