
REDHUMPED CATERPILLAR

Integrated Pest Management for the Home Gardener

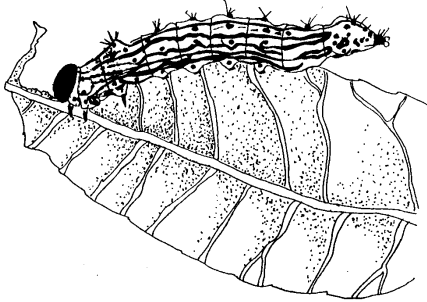


Figure 1. Redhumped caterpillar.

The redhumped caterpillar, *Schizura concinna* (Fig.1), is found throughout much of California. Though the climate of the coastal regions usually does not favor development of destructive populations, it may be a serious problem in the warm Central Valley. Trees most commonly attacked are liquidambar (sweet gum), walnut, and plum, although it is also found on almond, apple, apricot, birch, cottonwood, cherry, pear, prune, redbud, willow, and others.

DESCRIPTION

The redhumped caterpillar has four stages of development: egg, larva (or caterpillar), pupa, and adult (or moth). Eggs are laid in groups of 25 to 100 on the undersides of younger leaves (Fig. 2). They are nearly spherical and pearly white. Caterpillars are 1 to 1½ inches long when fully grown and have a base color of yellow. The body is marked with longitudinal white, reddish brown, or sometimes black stripes. The head is usually orange or brick red, as is the fourth body segment, which is distinctly humped and has two prominent black tubercles or spines. Each body seg-

ment also has less-distinctive black tubercles. Caterpillars rest with the hind end elevated. The pupa is reddish brown, a little over ½ inch long, and enclosed in a silken cocoon in the soil or in the layer of organic debris covering the soil.

Adult moths have a wing span of 1 to 1⅜ inches. The forewings are reddish to grayish brown and are often darkest along the hind margin. The hindwings are off-white to light gray or brown.

DAMAGE

Upon hatching, caterpillars feed in groups on lower leaf surfaces and skeletonize the leaves. As the larvae become larger, individuals tend to disperse and consume the entire leaf, leaving only the tough woody veins. When infestation is light, leaves on only a few branches are eaten, but occasionally a heavy infestation develops and entire trees over a large area are defoliated. Most severe defoliation occurs in summer. Even if completely defoliated, trees that are otherwise healthy can be expected to recover.

When defoliation occurs on walnuts, the nuts are subject to sunburning.

LIFE HISTORY

In autumn, caterpillars drop to the ground and spin silken cocoons. They remain inside the cocoons during winter and transform into pupae in spring. Moths begin emerging from pupae in April and May. They mate, and each female may lay over 200 eggs. The eggs hatch into tiny caterpillars that feed, grow, and finally drop to the ground to pupate. There

are often as many as four or five generations per year. Redhumped caterpillars seem to be more abundant after a warm winter.

CONTROL

A number of parasitic wasps, including *Apanteles* species and *Hyposoter fugitivus*, use the redhumped caterpillar as a host and on occasion provide an effective natural control. However, in some instances additional control measures are necessary. The simplest of these is to cut off the foliage that contains caterpillars while the insects are still young and gregarious. At this stage only small branches need to be pruned off to destroy a large group of caterpillars. The foliage can then be burned or the caterpillars crushed.

Bacillus thuringiensis (sold as a variety of products, including Dipel and Thuricide) is an effective spray for redhumped caterpillar control. Bt, as it is commonly known, is a bacterial preparation that causes a disease-like condition in many types of caterpillars. They stop eating several hours after feeding on a sprayed leaf and die a couple of days later. Spray with

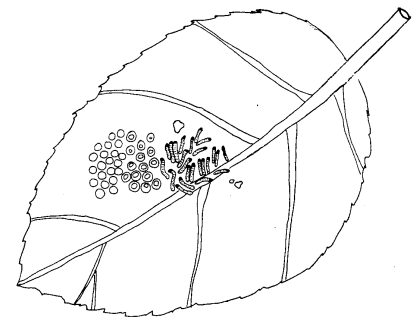


Figure 2. Eggs and newly hatched caterpillars.

Bacillus thuringiensis after the first skeletonized leaves have appeared. A forceful spray throughout the entire tree is needed for effective control. Bt will not harm the natural enemies of redhumped caterpillars and other insects like the more toxic, broad-spectrum insecticides do.

Experience has shown that sprays for redhumped caterpillar control are often applied too late. Unless the caterpillars are present on trees, it is

best to delay spraying until the next generation appears and is feeding on the leaves.

COMPILED FROM:

Moore, W. S., and C. S. Koehler. 1981. *Redhumped Caterpillar—A Pest of Many Trees*. Oakland: Univ. Calif. Div. Agric. Nat. Res. Leaflet 21064.

SUGGESTED READING

Dreistadt, S. H., J. K. Clark, and M. L. Flint. 1994. *Pests of Landscape Trees*

and *Shrubs: An Integrated Pest Management Guide*. Oakland: Univ. Calif. Div. Agric. Nat. Res. Publ. 3359.

Flint, M. L. 1998. *Pests of the Garden and Small Farm: A Grower's Guide to Using Less Pesticide*, 2nd ed. Oakland: Univ. Calif. Div. Agric. Nat. Res. Publ. 3332.

For more information contact the University of California Cooperative Extension or agricultural commissioner's office in your county. See your phone book for addresses and phone numbers.

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PRODUCED BY IPM Education and Publications, UC Statewide IPM Project, University of California, Davis, CA 95616-8620

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To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products that are not mentioned.

This material is partially based upon work supported by the Extension Service, U.S. Department of Agriculture, under special project Section 3(d), Integrated Pest Management.

WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Confine chemicals to the property being treated. Avoid drift onto neighboring properties, especially gardens containing fruits and/or vegetables ready to be picked.

Dispose of empty containers carefully. Follow label instructions for disposal. Never reuse the containers. Make sure empty containers are not accessible to children or animals. Never dispose of containers where they may contaminate water supplies or natural waterways. Do not pour down sink or toilet. Consult your county agricultural commissioner for correct ways of disposing of excess pesticides. Never burn pesticide containers.

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