

# Insects



## Holly Leafminers

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Holly leafminers are the most injurious pests of holly in the eastern United States. The holly leafminer was introduced from Europe. This insect is a primary pest of English holly. Injury results from the larval mining activity just under the upper leaf surface. Additional damage is caused when females repeatedly puncture the leaves with their ovipositor (egg-laying structure). Punctured leaves become deformed.

### Description and Life Cycle

The holly leafminer, *Phytomyza ilicis* Curtis is a European species that overwinters as a larva in the mines. Larvae are about 1/8 inch long and yellow to white. Pupation occurs in March and April. Small, black adult flies, 1/8 inch long, begin to emerge in May or about the time holly twigs have three to four new leaves. Adults feed for about 10 days before laying eggs. During this period, females make feeding punctures on the undersides of new leaves. Both males and females then feed on the sap exuding from these punctures. These punctures resemble pinpricks and may be quite numerous (up to 50 on a single leaf). Such injury results in distortion of the leaves. Eggs are laid in the punctures.

After hatching, larvae mine under the upper leaf surface. Mines are threadlike and inconspicuous at first, but by late autumn they widen into blotches or blisters. Another species, the native holly leafminer,

*Phytomyza iliciola* Loew, produces very slender mines packed with frass (excrement) and may be found on the same tree with *P. ilicis*. Larvae remain in the mines for nine to 10 months before pupating in the spring.

### Control

For chemical control recommendations refer to [tiny.utk.edu/ag/insectandmite](http://tiny.utk.edu/ag/insectandmite). Always refer to the insecticide label to make sure that the insecticide can be legally applied on ornamental plants at your site, such as residential landscape or commercial nursery. Dimethoate can be used on English and American holly, but should not be used on the Burford holly variety.

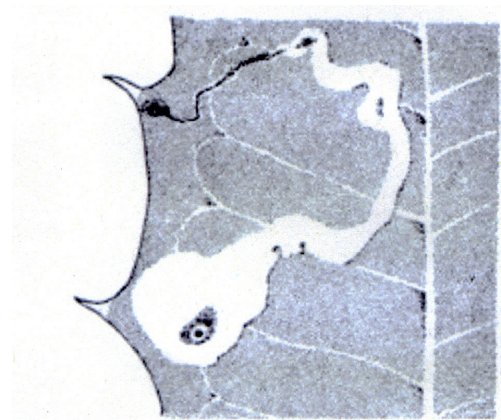


Figure A. Native holly leafminer mine in leaf.



Figure B. Adult



Figure C. Larva



Figure D. Puparium



Figure E. Ovipositor punctures

### Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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SP 290-T (Rev.) 6/17 17-0203

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