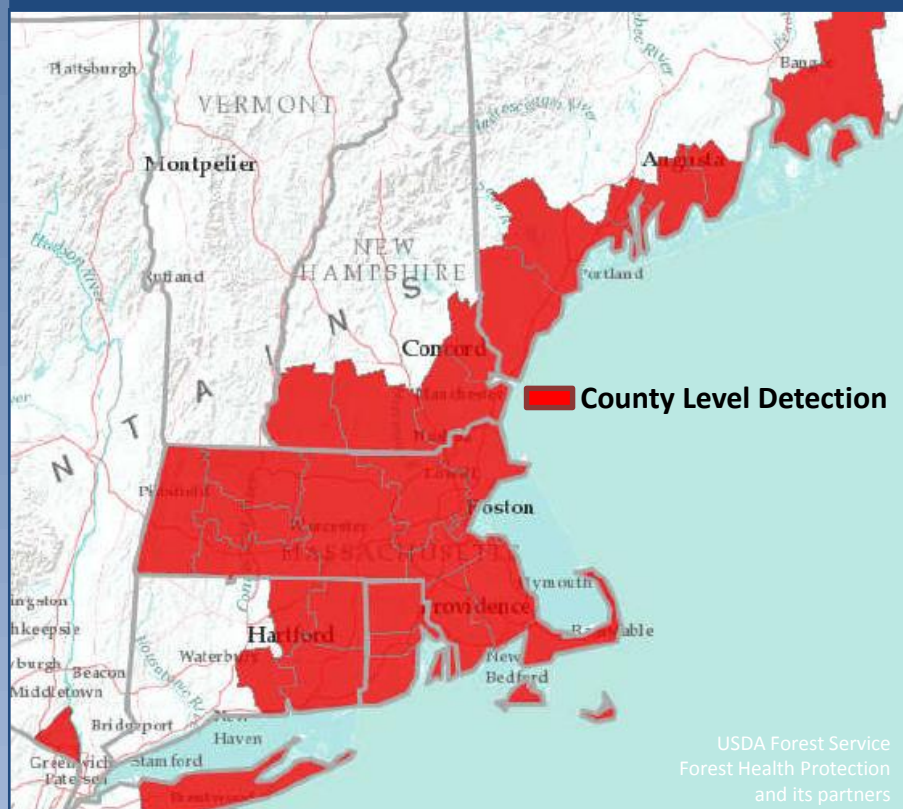


# Winter Moth

## *Operophtera brumata*

### Detections



### Winter Moth Defoliation



### Attracted to Lights



Winter moth is an exotic defoliator from Europe that was first reported in Nova Scotia in the 1930s and eastern Massachusetts in the late 1990s. It has since spread west and south to Rhode Island, Connecticut and Long Island. It has also been found throughout coastal Maine from Kittery to Bar Harbor, and is now in Southern NH. The larvae of winter moth defoliate deciduous trees and shrubs in early spring. Trees heavily defoliated by winter moth for three or more years can exhibit branch dieback and mortality. Preferred hosts include oak, maple, birch, apple, elm, ash, crabapple, cherry, and blueberry. The larvae will feed on many other plants as well. Winter moth is similar in appearance to the native Bruce spanworm (*Operophtera bruceata*) and fall cankerworm (*Alsophila pometaria*) and is extremely difficult to tell the species apart.

### Adult Female



### Larvae



### Adult Male



## Life Cycle and Description

The larvae hatch in early spring from eggs laid on the trunks of host trees. They crawl up the trees and burrow into both leaf and flower buds, feeding on the expanding buds and foliage. The larvae also produce silk that they use to “balloon” to new locations. They also use the silk to tie buds and leaves together when they are young. Winter moth larvae are light green to brownish-green inchworms with longitudinal white stripes on each side of the body and are ½” long when full-grown.

Mature larvae spin down out of the trees to pupate in the soil, not only under the trees, but also in the surrounding area. The larvae form earthen cocoons where they stay from June to November. They are well protected during this time and are not affected by pesticides. Adults are active from late November to January whenever the temperature is above freezing. Males are small, light brown to tan moths. They are attracted to lights and a pheromone released by the females. Female adults are small, gray, with reduced wings and flightless. They are most commonly found crawling at the base of trees. After mating, females deposit their eggs in host tree bark crevices, scales, or loose lichen. The eggs over-winter and hatch in the spring when temperatures reach ~55° F.

## Control

Insecticidal control may be helpful in reducing winter moth populations in the landscape but timing is critical as applications are only effective during larval stages once the buds have burst. Tree banding is being used in some communities but research has not shown it to be an effective control in heavily infested areas. Parasitic wasps (*Cyzenis albicans*) are also being released in neighboring states as a biological control.



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