Winter Moth

Latest News:

- Seeing Winter Moths? Take our online survey. (11/2014)

(Click on an image below to see the captioned full-size version)

Scientific Name: Operophtera brumata
Common Names: Winter Moth

Known Hosts:
Many deciduous plants are hosts for the winter moth including oaks, maples, basswood, white elm, crabapples, apple, blueberry, and cherry.

Key ID Features:
- Adult moths emerge in late November and can be active into January under the right weather conditions.
- Females are small (8mm), gray, and wingless. They can be found crawling up tree trunks, sides of houses, and other vertical surfaces. (Figure 1)
- Males are small (wingspan of 20-25 mm) and light brown to tan in color. The wings of the male have a fringed appearance along the hind margins. (Figure 2) Large numbers of males are attracted to lights at night.
- After mating females lay egg clusters on tree trunks and branches, under lichens and bark scales, and in bark crevices. The eggs are pale green at first but turn reddish orange. (Figure 3)
- Larvae are pale green caterpillars with a white stripe running down each side of the body. They have two pairs of prolegs (Figure 4)
- Larvae are loopers or inchworms that grow to be about 1 inch long at maturity.
- Larvae will feed until mid-June when they migrate to the soil to pupate. (Figure 5)

Description of damage:
- Larvae appear as early as March. Eggs hatch when temperatures average around 55F.
- Young larvae tunnel into buds, especially the flower buds of fruits, and feed inside buds. Once the bud has been devoured the larvae will move to another bud to feed. (Figure 6)
- Older larvae feed on foliage. (Figure 7)
- In areas with large infestations winter moth larvae can completely defoliate host plants.

Similar species:
The winter moth looks very similar to the fall cankerworm (Alsophila pometaria) in both adult (Figure 8) and larval (Figure 9) stages. The related bruco spanworm moth (Operophtera brucetata) looks almost identical to the winter moth at all life stages (Figures 10, 11, 12). Mixed populations of these species occur in Massachusetts. Spring cankerworm (Paleacrita vernata) larvae are present at the same time in the spring as the fall cankerworm and winter moth larvae.

Summary of caterpillar pests prevalent in MA and how to identify and manage them, from UMass Extension
http://extension.umass.edu/landscapes/fact-sheets/categories/insects-and-mites

Caterpillar identification guide: Discover Life Organization
http://www.discoverlife.org/mpc/200c?guide=Caterpillars

Bruco spanworm, Operophtera brucetata / Winter moth, Operophtera brumata
Ministry of Forest and Range, British Columbia, Canada
http://www.for.gov.bc.ca/hfp/publications/00198/winter_moth.htm

Fact sheets and references: