

Box Tree Moth

Cydalima perspectalis

Not known to be present in Hawai'i

An invasive moth that can defoliate and kill boxwood. Spreading in Europe, it was first detected in North America in 2018 in Canada and the US in 2021. Efforts are underway to prevent further spread.



Adult box tree moth at rest. Photo by Wim Rubers at waarneming.nl, distributed under a CC-BY



Photo by Ferenc Lakatos, University of Sopron, Bugwood.org

Webbing on boxwood can indicate the presence of the pest.



Photo: Ferenc Lakatos, University of Sopron, Bugwood.org

Caterpillars are greenish yellow.



Impacts

- The box tree moth defoliates boxwood plants (*Buxus* spp). It also infests *Ilex purpurea* (purple holly), *Euonymus* spp. (spindletree). Once leaves are gone, larvae feed on bark. Sufficient feeding can kill the plants.
- Of particular concern in Hawaii is the moth's secondary diet of mock orange (*Murraya paniculate*). The moth will eat mock orange once boxwoods are defoliated.



Identification

- Gardeners are likely to become aware of box tree caterpillars when they find webbing and caterpillars on boxwood plants.
- Newly hatched caterpillars are greenish-yellow, with black heads. Older caterpillars reach up to 4cm (1½in) in length and have a greenish/yellow body with thick black and thin white stripes along the length of the body
- The adult moth usually has white wings with a faintly iridescent brown border, although the wings can be completely brown or clear. The moth has a wingspan of around 4cm (1½in).



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Vectors/Commodities

- Boxwood, *Ilex purpurea* (purple holly), *Euonymus* spp. (spindletree), and mock orange (*Murraya paniculata*).



Distribution

- Native to East Asia, the boxwood moth reached Europe in 2007 and has spread widely. Internationally: Belarus, Lithuania, Malta, Kosovo, Georgia, Montenegro, Ukraine, Serbia, Greece, Bosnia, Bulgaria, Croatia, Czech Republic, Hungary, Turkey, England, Netherlands, Switzerland, China, Japan, Korea,
- First reached North America (Canada) in 2018 and was first detected in the US in 2021, arriving via shipped boxwood to six states: Connecticut, Massachusetts, Michigan, New York, Ohio, and South Carolina. Efforts to contain the pest are underway as of 2021.



Photo: Ferenc Lakatos, University of Sopron, Bugwood.org

Early symptoms on tips of boxwood leaves



Best Management Practices

- This species is not found in Hawaii. Prevention and early detection efforts protect Hawaii's nursery industry.
- Consider sourcing options and pest distribution when purchasing boxwood plants.
- BOLO: Be on the lookout! Carefully inspect boxwood and other host plants for indications of the moth: webbing and the frass produced by caterpillars.
- Report any suspect pests to www.643pest.org or by phone to 643-PEST (7378).



Selected References:

- Boxwood Moth Pest Alert form USDA APHIS
https://www.aphis.usda.gov/publications/plant_health/alert-box-tree-moth.pdf

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