

DAFM Plant Pest Factsheet

Cyladima perspectalis Box-tree moth/caterpillar



Fig 1: *Cyladima perspectalis* adult on *Buxus* leaf

Pest Characteristics

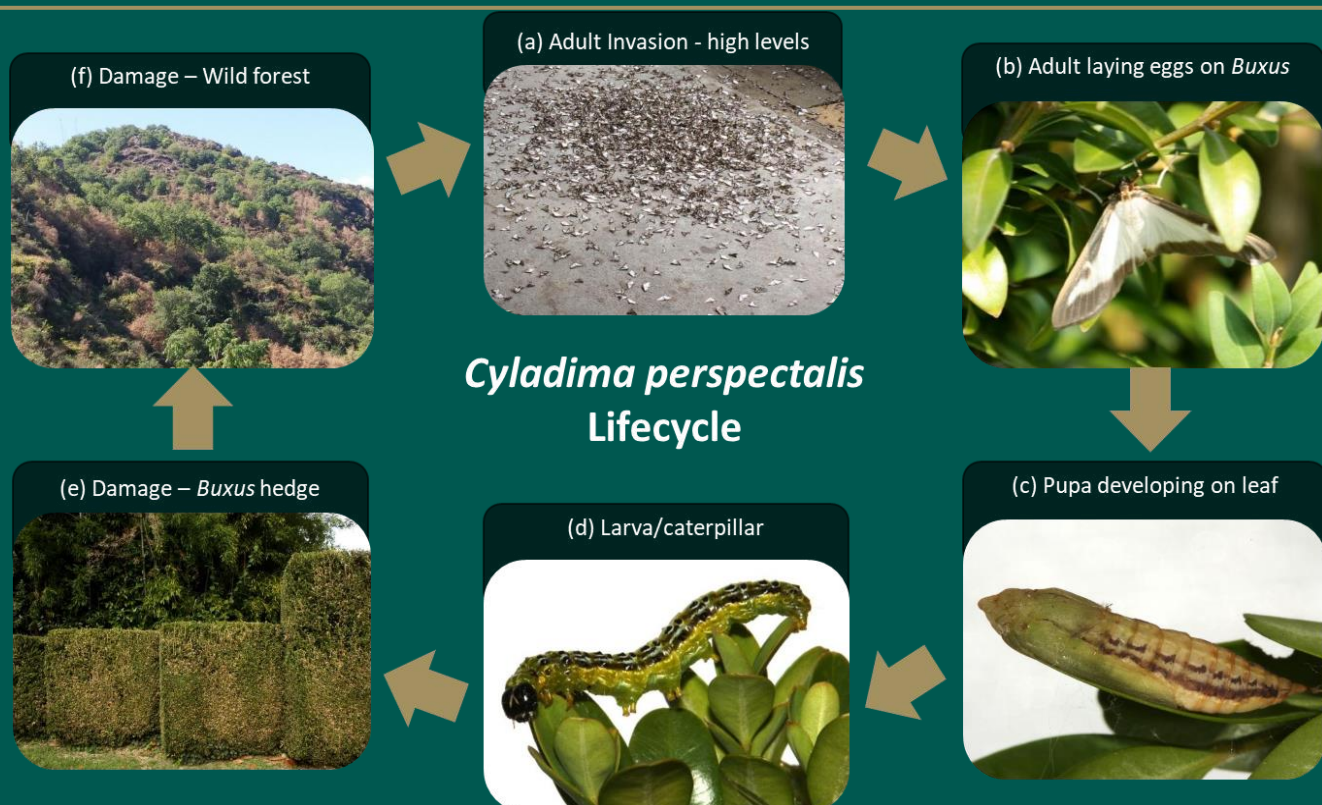
- **Pest:** *Cyladima perspectalis*
- **Common name(s):** The box-tree moth/caterpillar or box moth/caterpillar
- **Hosts:** *Buxus* spp. (*balearica*, *microphylla*, *sempervirens* and *sinica*). *Buxus* plants are widely used as hedges and ornamentals i.e. box trees. *Buxus sempervirens* is considered to be a native species to Ireland.
- **Invasive Risk:** *Cyladima perspectalis* is considered to be originally native to Eastern Asia. The pest was first reported in Europe in 2006 (Germany) and has since rapidly spread across the continent (Fig 3). It was first identified in the UK in 2007 and has been found in Ireland since 2017.
- **Entry Pathways:** It is believed that the pest was introduced into Europe on multiple occasions on infested *Buxus* plant imports. Its subsequent spread throughout Europe is a combination of both natural spread from established populations and the nursery trade in *Buxus* plants.
- **Adaptability:** This pest has established breeding populations throughout the UK and is therefore highly suited for the Irish climate.
- **Impact:** The pest has caused considerable damage since its arrival in Europe. In Germany's largest *Buxus* forest > 90% defoliation of trees was reported between 2009-2010, with 27% of trees completely defoliated. In the UK it has been stated a box ball plant can be defoliated by caterpillars within a week if no action is taken (e.g. hand removal or biological control). Chemical control options and pheromone traps have shown low efficacy.
- **Visual Symptoms:** Pupa and larvae can be found feeding on *Buxus* leaves and shoots leading to partial or complete defoliation (Fig 2).



Fig 2: Visual symptoms of *C. perspectalis* infestations on *Buxus*: (a) larvae/caterpillars feeding on leaves; (b) partial defoliation of plant; (c) complete defoliation from severe infestation



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- **Dispersal:** Adult box moths are strong flyers. It is unknown if introductions into Ireland been the result of trade in infested plants and/or from natural dispersal via flight from populations established in the UK or Europe.
- **Distribution:** Originally considered native to the region of China & Korea, the pest spread into the neighbouring countries of Japan, Russia and possibly India. International trade has since introduced the pest into both Europe and North America (Fig 3).
- **Lifecycle:** Adults populations can be numerous due to lack of natural predation (a); females lay eggs (pale yellow colour, laid in overlapping sheets) on the under side of leaves (b); pupa undergo their developmental stages attached to the leaf, though are generally concealed in a cocoon of white webbing (webbing not picture here) (c), hatched larvae grow to lengths of about 4 cm, the pest over winters in this form (d); larvae feed on leaves of both ornamental *Buxus* (e) and wild forest (f).
- **If suspected:** If you find a suspected specimen please submit images to DAFM at: plantpestreport@agriculture.gov.ie

Photo credits: All images used in Figures 1, 2 and lifecycle were obtained from the EPPO *C. perspectalis* images repository: <https://gd.eppo.int/taxon/DPHNPE/photos>

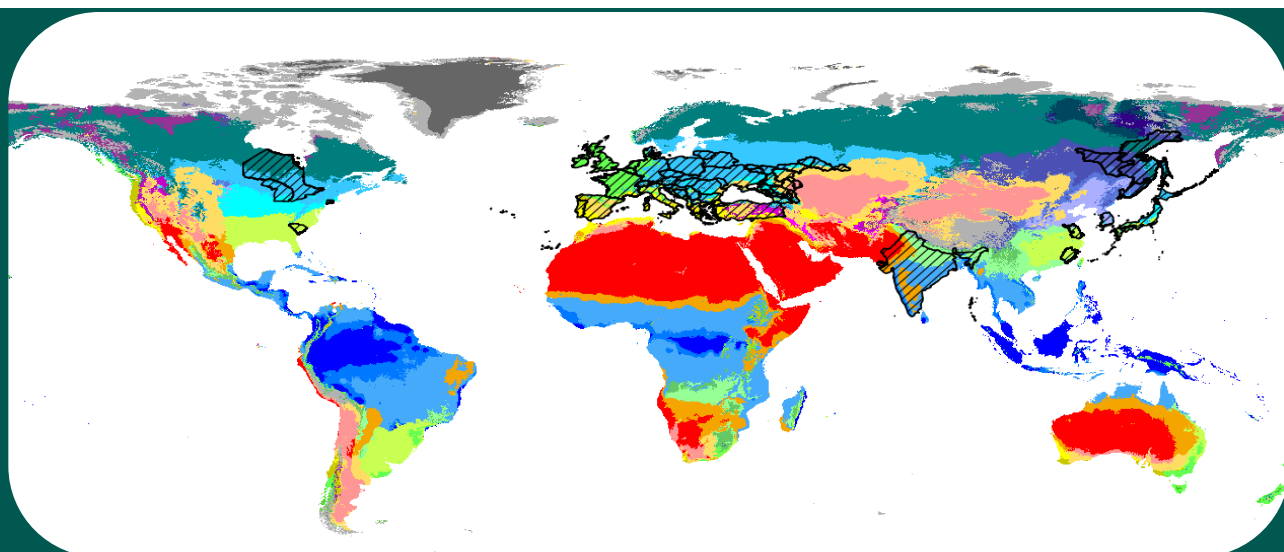


Fig 3: Known global distribution of *C. perspectalis* overlaid on climate classifications of regions



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