

DAFM Plant Pest Factsheet

Conotrachelus nenuphar Plum curculio

EU
Priority
Pest!



Fig 1: *Conotrachelus nenuphar* weevil, adult specimen

Pest Characteristics

- **Pest:** *Conotrachelus nenuphar*
- **Common name:** Plum curculio
- **Hosts:** *Conotrachelus nenuphar* is a pest that mainly attacks fruit of *Prunus* trees, such as plum (*P. domestica*) and cherry (*P. avium*). However, it is also known to cause significant damage to other orchard species such as apple (*Malus domestica*) and pear (*Pyrus communis*). The pest also affects some blueberry (*Vaccinium*) and hawthorn (*Crataegus*) species.
- **Invasive risk:** The pest has not yet spread beyond its native distribution range in North America. To date, there have been no reported interceptions of the pest on imports of host fruit entering into the EU from North America.
- **Entry pathways:** The most likely entry route into Ireland or the EU is on imports of host plants and their produce (e.g. fruit) from regions where the pest is present. Inspections of imports conducted at Irish border control points should reduce the likelihood of entry into Ireland via these pathways.
- **Symptoms:** It is difficult to detect the early stages of crop infestation. Traps combined with chemical lures can be used for attracting adults, but they are not always effective (Fig 2a). Crop monitoring can be conducted by “jarring” (disturbing/shaking) branches to see what insects fall and checking for adults. Visual symptoms of infestation on trees are adult feeding spots (2-3 mm) and oviposition sites (D-shaped scar) on fruit (Fig 2). Larval feeding within fruit results in abortion (drop from the tree), except for cherries.



Fig 2: *Conotrachelus nenuphar* trunk trap (a) oviposition mark (D-shape) and feeding damage (small spots ~ 2-3 mm wide) on apple (b) and close-up of apple damage (c) typical (D-shaped) oviposition mark on cherry fruit (d) More photos are available on the [EPPO Database](#)



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(f) Adults emerge from pupa and over winter in soil, leaf litter or stone walls



(a) Adults invade crops in spring and begin feeding and mating



(b) Symptoms of feeding (spots) and oviposition (D-shape) on apple



(e) Pupa, final larval stage emerges from fruit and enters soil for pupation stage



(d) Larvae feed and develop inside fruit



(c) Eggs are laid singly below fruit skin



Fig 3 *Anthonomus eugenii* lifecycle

- **Distribution:** The pest is native to North America (Fig 4). It is restricted to the east of the Rocky Mountains, except for an isolated population in Utah.
- **Dispersal:** Adults are capable of flight but only appear to fly short (<150m) distances. Spring and autumn migrations are generally less than 150 m.
- **Climatic suitability:** The pest appears to be suited to establishment in the Irish climate should it be unintentionally introduced into the environment.
- **Lifecycle:** Adults can overwinter in leaf litter, soil or protected sites such as stone walls (Fig 3). In spring adults emerge seeking host trees, generally aggregating at their base before invading the canopy to feed on shoots, leaves and flowers. Adults feed on developing fruit once it is available. Oviposition (egg laying) occurs on developing fruit which leaves behind a D-shape scar. Females lay eggs singly and can lay between 65-75 eggs in a year. Larvae feed inside fruit often leading it to drop from the tree. The larvae undergo 4 developmental stages called "instars". Instars can take 2-5 weeks to develop into adults, depending on the climate. The final instar emerges from fruit and tunnels 10-15 cm into the soil to pupate. Adults emerge from pupa after about 10-15 days and feed. Depending on the local climate, the new adults will either migrate seeking out over-wintering sites or produce another generation. The pest produces 2-3 generations in its southern range and only 1 in the northern ranges in North America.
- **If suspected:** If you find suspected symptoms or specimens, please submit images to DAFM at: plantpestreport@agriculture.gov.ie

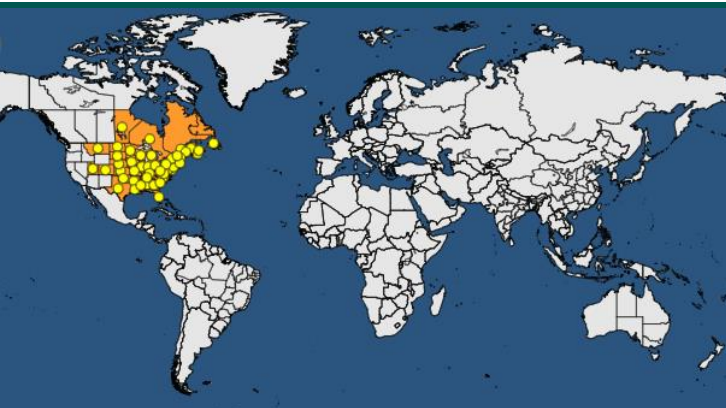


Fig 4: World map of *C. nenuphar* distribution taken from the EPPO database ([Link](#))

Photo credits: Fig 1, 2 & 3 EPPO ([Link](#))



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