

# DAFM Plant Pest Factsheet

## *Agrilus anxius* Bronze birch borer

EU  
Priority  
Pest!



Fig 1: *Agrilus anxius* adult on birch bark

### Pest Characteristics

- **Pest:** *Agrilus anxius*
- **Common name:** Bronze birch borer
- **Hosts:** *Agrilus anxius* is only known to feed on species of birch (*Betula*). There are two native Irish birch species both of which are considered major hosts of the pest: downy birch (*B. pubescens*) and silver birch (*B. pendula*).
- **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 entering into the EU from North America.
- **Entry pathways:** The most likely entry route for this pest into Ireland is on imports of host plants and wood products from regions where the pest is known to be present. Inspections of imports conducted at Irish Border Control Points should reduce the likelihood of entry via these pathways.
- **Symptoms:** Visual detection of early *A. anxius* outbreaks is difficult. Infestations initiate in the treetops and work their way downwards slowly. The first sign/symptoms identifiable visually are treetop dieback, sparse and chlorotic foliage (Fig 2). As infestations make their way downwards symptoms that can be visually identified include welts above larval galleries, calluses on stems and D-shaped adult emergence holes which are typically ~3.2mm long. Currently, there are no pest specific traps for *A. anxius*, however, green funnel traps and purple prism traps have shown promise if hung in birch tree in locations exposed to sunlight.



Fig 2: *Agrilus anxius* infestation symptoms: (a) birch treetop dieback (b) calluses on stem bark (c) larval gallery under bark (d) adult emergence holes on bark. More photos are available on the [EPPO Database](#)



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Fig 3 *Agrilus anxius* lifecycle

- **Distribution:** The pest is native to North America and is widespread throughout the USA and Canada (Fig 4).
- **Dispersal:** Adults are capable of flight but only appear to disperse over short distances if suitable hosts are near. The average maximum yearly spread has been estimated to be 1.3km.
- **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 emerge from infested trees from the spring to early summer, depending on the local climate. Adults must first feed on birch foliage to reach sexual maturation before they can mate. Mature adults have lifespans ranging from 2-5 weeks. Eggs are oval in shape (~ 1.5mm long, ~ 1mm wide) and are laid in bark crevices. Freshly hatched larvae bore through the birch bark to reach the cambium & phloem layers upon which they feed forming “zig-zag” galleries. Larvae undergo 4/5 developmental stages called “instars”. Depending on the local climate larval development can take 1 or 2 summers. The final larval instar overwinters as a prepupa in their gallery. Pupation is triggered by temperatures falling below 0°C (generally occurs in the early spring in its native ranges).
- **If suspected:** If you find suspected symptoms or specimens, please submit images to DAFM at: [plantpestreport@agriculture.gov.ie](mailto:plantpestreport@agriculture.gov.ie)

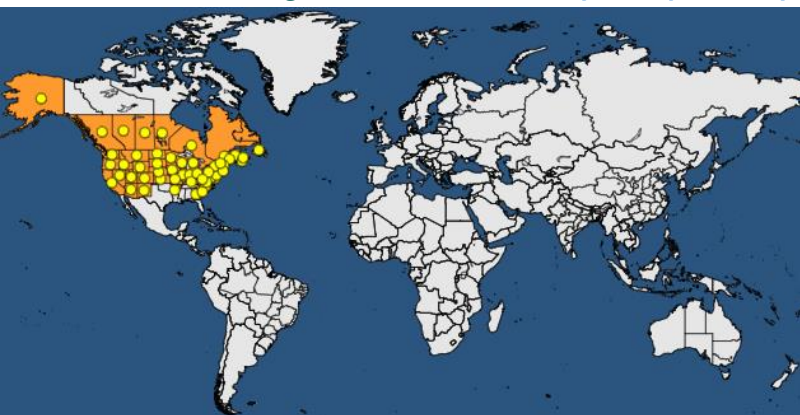


Fig 4: World map of *A. anxius* distribution taken from the EPPO database ([EPPO](#))

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



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