DAFM Plant Pest Factsheet

Ips acuminatus
Pine engraver beetle

Fig 1: *Ips acuminatus*

Pest Characteristics

- **Pest:** *Ips acuminatus*
- **Common name:** Pine engraver beetle
- **Hosts:**This pest affects pines with the tree species *Pinus sylvestris* (Scots pine) the most commonly associated host.
- **Invasive Risk:** This bark beetle is now widely distributed in Europe. Key elements for establishing namely host availability and climatic suitability exist in Ireland for *I. acuminatus.* Current IE legislative requirements for other bark beetles should also reduce the risk of entry of *I. acuminatus.*
- **Entry Pathways:** Wood, wood products, bark and wood packaging material are considered as the main pathways for spreading this pest.
- **Adaptability:** The pest is capable of establishing in the Irish climate. Recent modelling techniques HC (Duffy *et al.,* 2021) identify *I. acuminatus* as a high-risk pest for establishing in Ireland.
- **Impact:** *Ips acuminatus* is one of the most serious secondary pests of pines in Europe. Outbreaks and damage from pest usually occurs only locally and often only when trees are weakened (by weather-related stress and/or other tree pests). The pest is known to be a vector of several fungal pests. No impact in the UK are reported.
- **Symptoms:** Infested trees can be difficult to recognize, the pest infests the upper part or big branches of standing trees. Visual monitoring/surveillance targets external damage to host trees, exit holes in bark, larval damage and timber quality losses (Fig 2).

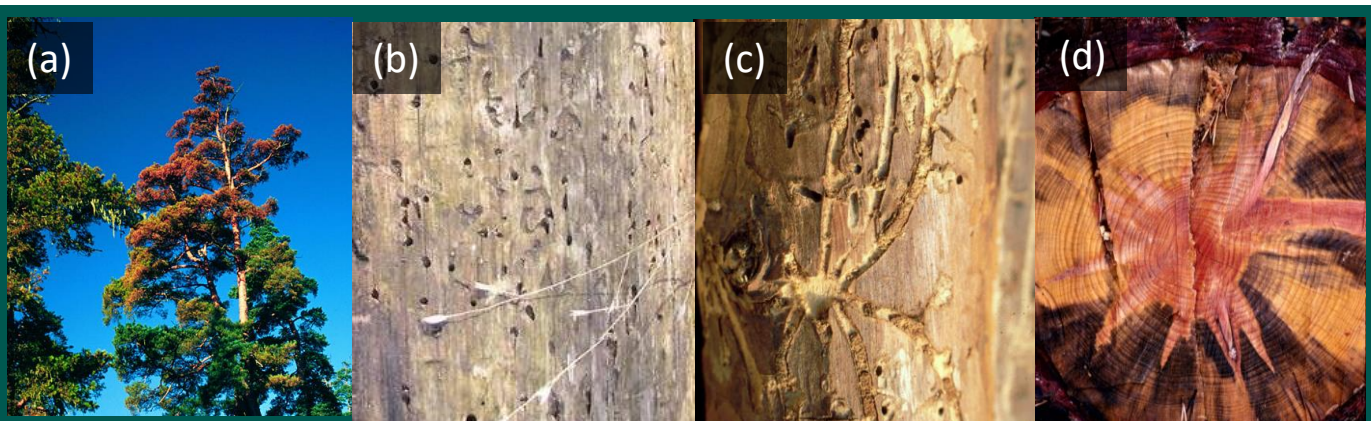

Fig 2: Symptoms of *Ips acuminatus* infestations (a) top kill (b) exit holes (c) gallery with larvae (d) blue stain fungi in the sapwood

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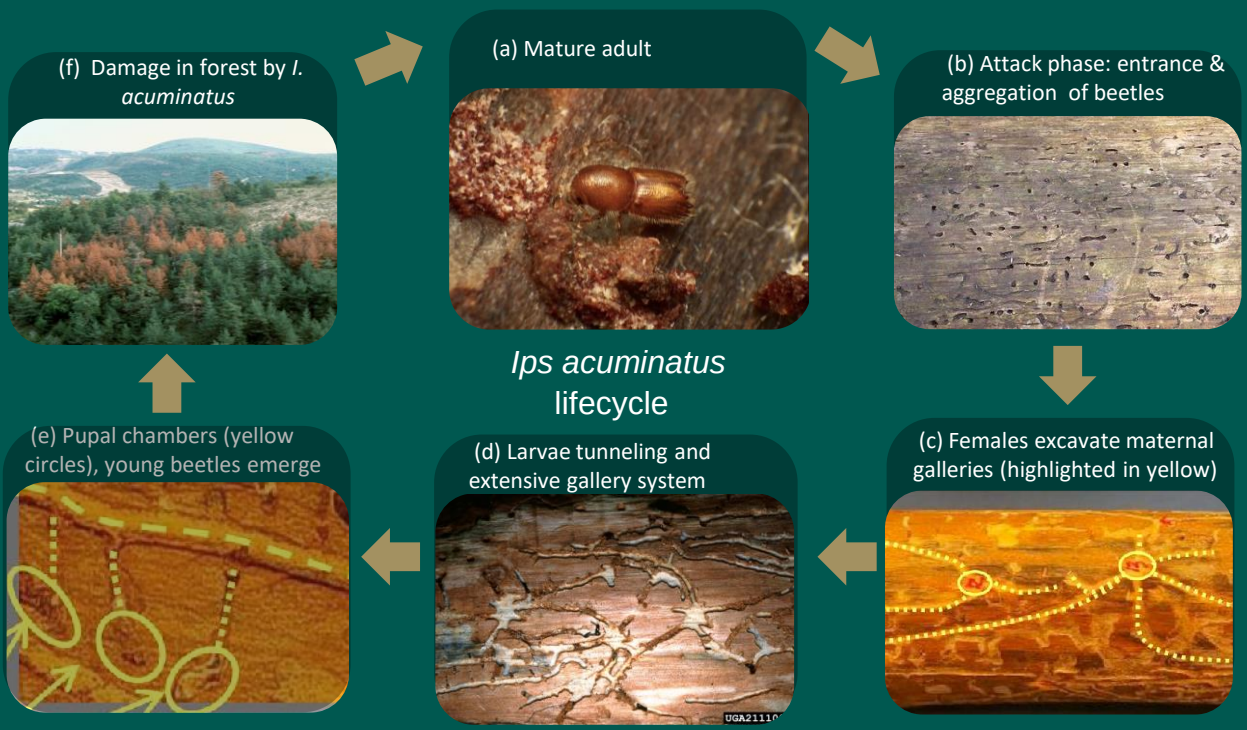

- **Lifecycle:** Adults overwinter both in infested trees and in leaf litter. The male beetle initiates the boring, excavating a “nuptial chamber” under the bark and release pheromones to attract females. Females excavate maternal galleries which radiate outward, the gallery systems has a distinctive star-shaped pattern. Hatched larvae create very short galleries, feeding through the phloem layers. Pupal chambers are excavated. The larvae moult into adults. Fungi form spore layers in pupal chambers, contaminating beetles. Young beetles, emerge to infest new host trees
- **Dispersal:** Local flights of *Ips* spp. tend to be very short (~500 m). Long-distance flights can be up to 50 km, longer distance is possible when they are wind-assisted.
- **Distribution:** *Ips acuminatus* is native to Eurasia**.** Current distribution is wide ranging, in Europe this extends from Spain to Scandinavia.
- **If suspected:** DAFM Inspectors conduct annual surveys to ensure Ireland’s pest free status for *I. acuminatus*. If you find a suspected specimen please submit images to DAFM at: plantpestreport@agriculture.gov.ie

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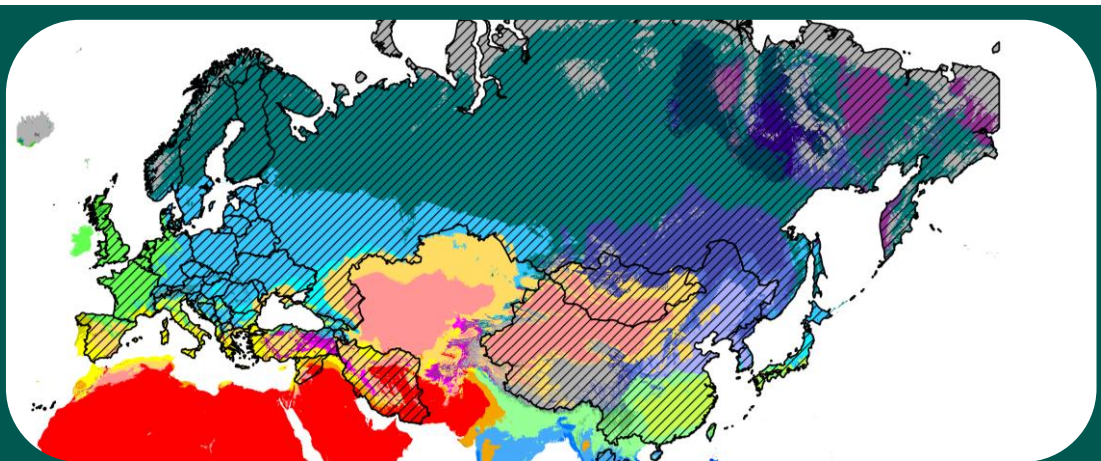

Fig 3: Known distribution of *I. acuminatus* (cross hatched areas) overlaid on regional climate classifications

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