

DAFM Plant Pest Factsheet

Ips cembrae Large larch bark beetle

Irish
Protected
Zone Pest!



Fig 1: Adult *Ips cembrae*

Pest Characteristics

- **Pest:** *Ips cembrae*
- **Common name:** Large larch bark beetle
- **Hosts:** Larch, mainly common large (*Larix decidua*). The pest is also known to infest several other *Larix* species. When there is an absence of larch hosts available the pest has been reported to infest fallen trees of other conifers such as species of Pine (*Pinus*) and Spruce (*Picea*).
- **Invasive Risk:** The pest is native to Europe and is now widely distributed on the continent. It has also expanded its range into some Russian regions and the Ukraine (Fig 3). The pest is widespread in the UK (excluding Northern Ireland and the Isle of Man). The risk of introduction into Ireland is mitigated by phytosanitary requirements on imports of host timber.
- **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.
- **Impact:** *Ips cembrae* is considered to be a secondary pest. Infestation of standing trees generally only occurs when they are weakened (i.e. drought, high temperatures or already attacked by another pest) or when there are mass outbreaks. The pest is known to be a vector of several fungal pests. The pest's impact in the UK is currently considered limited.
- **Symptoms:** The larvae burrow gallery systems beneath the bark resulting in impaired tree health (Fig 2). Visual monitoring/surveillance targets external damage to host trees (killed trees, shoots on the ground) and evidence of entry (frass can be visible below these) and exit holes in bark.

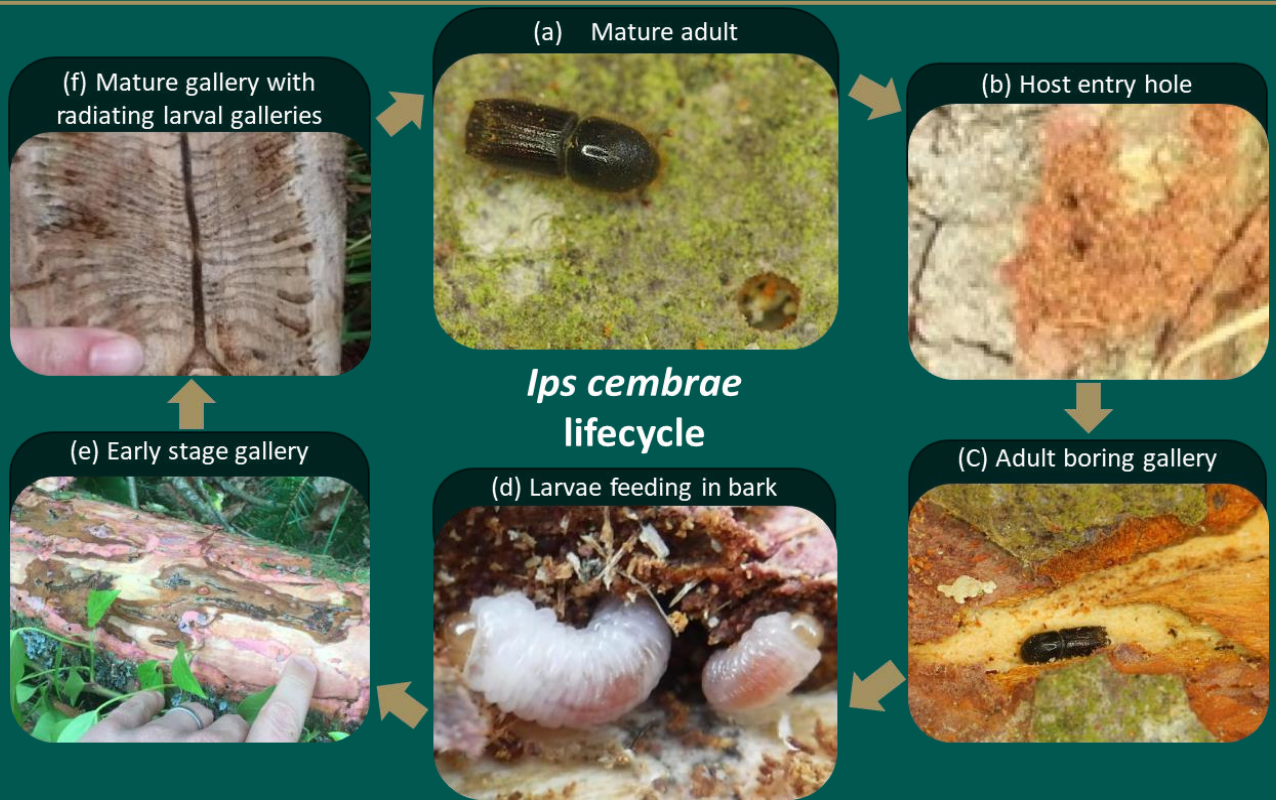


Fig 2: Symptoms of *Ips cembrae* infestations (a) entry hole with frass, (b) early gallery, (c) mature gallery with larvae, (d) exit hole



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine

DAFM Plant Pest Factsheet



- **Lifecycle:** Adults hibernate throughout the winter in infested trees and leaf litter. Adults emerge in early summer and disperse via flight. Males initiate boring into the bark of host trees and release pheromones to attract females. Mating occurs in a “nuptial chamber” from which females bore maternal galleries laying eggs along its length. Hatched larvae feed by boring galleries through the inner bark layers (phloem layers) radiating out from the maternal gallery. The larvae moult into adults beneath the bark and immature adults continue to feed expanding the gallery system. The species can produce up to two generations in warmer years/climates.
- **Dispersal:** Adult *I. cembrae* can potentially fly over tens of kilometers. However, in field they have been observed to mostly fly shorter distances towards nearby suitable host material.
- **Distribution:** *Ips cembrae* is considered native to Europe. It has increased its distribution throughout Europe over the last 60-70 years. It has since spread to Ukraine and some regions within Russia (Fig 3).
- **If suspected:** DAFM Inspectors conduct annual surveys to ensure Ireland’s pest free status for *I. cembrae*. 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 *I. cembrae* images repository: <https://gd.eppo.int/taxon/IPSXCE/photos>

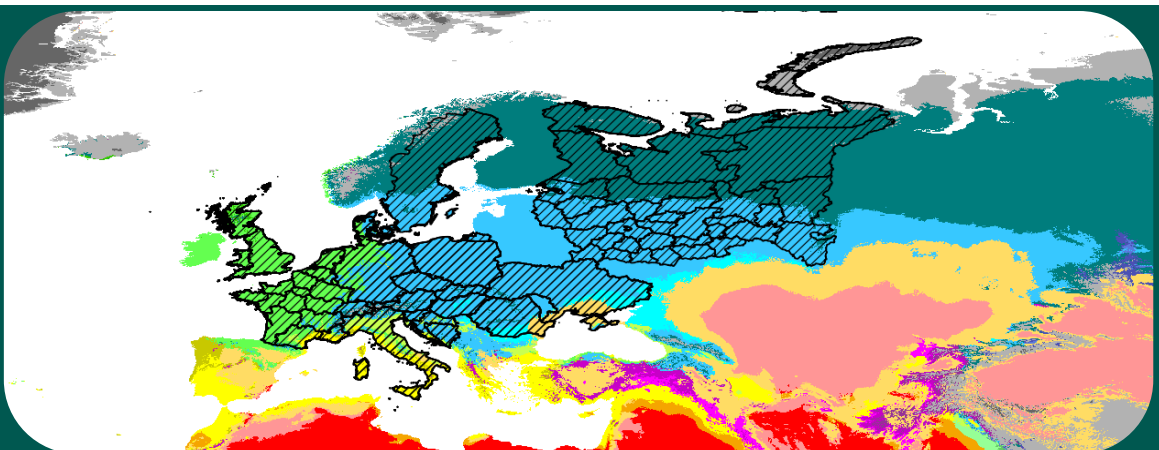


Fig 3: Known world distribution of *I. cembrae* (cross hatched areas) overlaid on regional climate classifications



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine