DAFM Plant Pest Factsheet

Pseudips mexicanus
Monterey pine engraver

Fig 1: *Pseudips mexicanus*

Pest Characteristics

- **Pest:** *Pseudips mexicanus*
- **Common name:** Monterey pine engraver
- **Hosts:** This bark beetle has been recorded attacking a wide range of pine (*Pinus*) tree species in its native region. *Pinus sylvestris* (Scots Pine) is not currently recorded to be a host.
- **Invasive Risk:** *Pseudips mexicanus* has not previously established beyond its native range in western North America and Central America.
- **Entry Pathways:** Wood, wood products, bark and wood packaging material are likely the main pathways for spreading this pest. *Pseudips mexicanus* is regulated in the EU as a non-European *Scolytinae* spp.
- **Adaptability:** *Pseudips mexicanus* tolerates a range of climate types from Alaska to Guatemala, and a climate similar to Ireland falls within this range.
- **Impact:** Central American populations of *P. mexicanus* have been associated with impacts on pine species, typically trees that are stressed (drought or wet stress) or already infested with another bark beetle species. For northern populations, the species is not considered an economic pest. Note: limited research exists on *Pseudips* spp. to date, there are high levels of uncertainty regarding the risks posed by this pest.
- **Signs/Symptoms:** A distinctive characteristic of the *Pseudips* genus is the presence and shape of three spines on each side margin of the elytral declivity (red arrows) (Fig 2a). Adults can range from 3 - 5 mm in size, dorsal view of an adult (b). Presence of reddish-brown boring dust has been observed with *P. mexicanus* (c). No images of tree damage symptoms directly as a result of *P. mexicanus* could be found.

Fig 2 (a) Elytral declivity of *P. mexicanus* (b) dorsal view of adult (c) red boring dust (in image above for *Ips* spp.) have been reported for *P. mexicanus*

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

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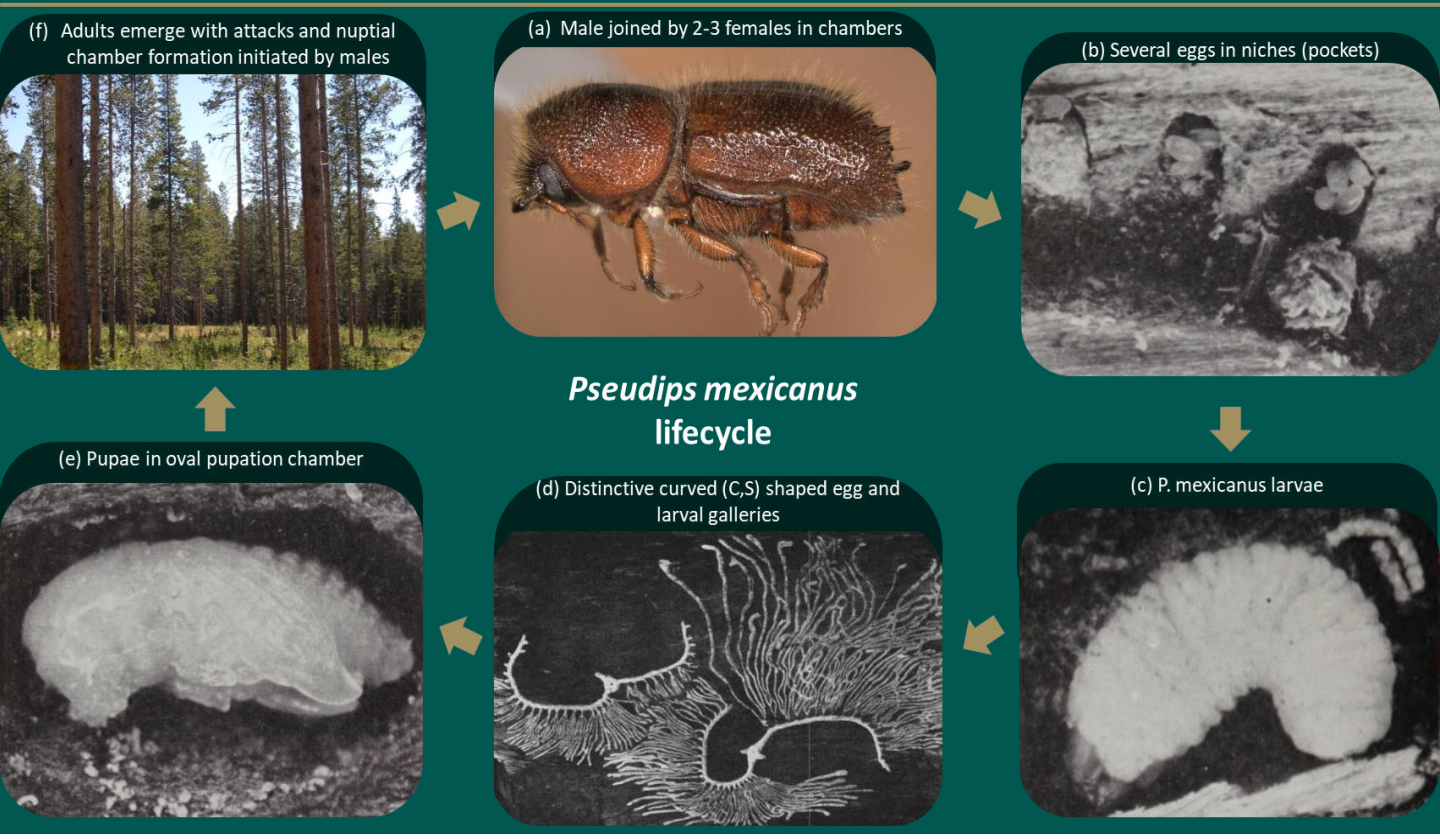

- **Lifecycle:** *Pseudips mexicanus* is a polygynous species; males initiate the attack in a host tree and build a nuptial chamber, and then are joined by two or three females. The type of gallery and egg-laying habits of this species are distinctive (b) & (d). *Pseudips mexicanus* has four larval stages (instars). The tunnels formed by the larvae enlarge as they extend and ultimately end in an oval-shaped pupation chamber, where the larvae moult into adults (e). The species can overwinter in both larvae and adult stages. Some variations such as attack behaviours exist between northern populations and southern (Central American) populations. Additionally, the bark beetle is univoltine (one generation per year) in British Columbia (Canada), further south the species can have up to three generations.
- **Dispersal:** Specific flight data for *P. mexicanus* is lacking. In general, for bark beetles, dispersal is usually short, a few hundred meters. However, some species have the capacity to disperse over tens of kilometers.
- **Distribution:** The current distribution of *P. mexicanus* ranges from Alaska to Guatemala. The species is found eastward in the United States and Canada to the Rocky Mountains See Fig 4.
- **If suspected:** If you find suspected symptoms or a specimen, please submit images to DAFM at: forestprotection@agriculture.gov.ie

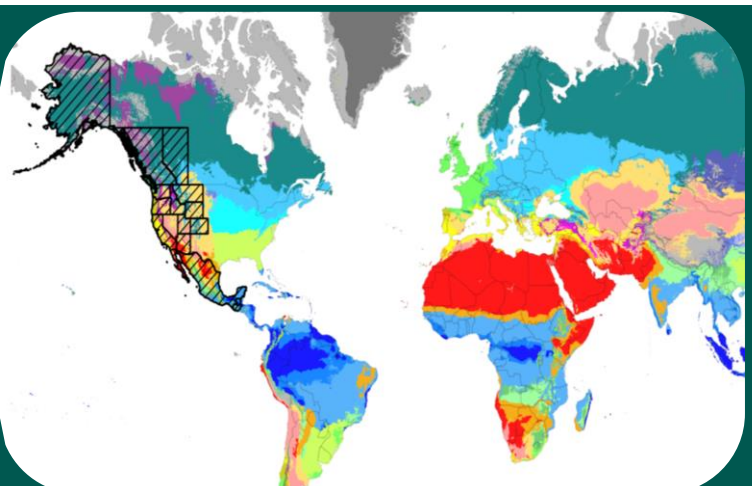

Fig 4: Distribution of *P. mexicanus* (cross hatched areas) overlaid on Köppen-Geiger climate classifications

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