

DAFM Plant Pest Factsheet

Anthonomus eugenii Pepper weevil

EU
Priority
Pest!



Fig 1 *Anthonomus eugenii* adult on pepper

Pest Characteristics

- **Pest:** *Anthonomus eugenii*
- **Common name:** Pepper weevil
- **Hosts:** *Anthonomus eugenii* is a significant pest of pepper cultivation, mainly bell pepper (*Capsicum annuum*) and chili pepper (e.g. *Capsicum frutescens*). The pest can also have an impact on aubergine (*Solanum melongena*). While the pest feeds on several other species (particularly *Solanum* spp), it cannot complete its lifecycle (reproduce) on all of them, such as potato (*S. tuberosum*) and tomato (*S. lycopersicum*).
- **Invasive Risk:** The risk of this pest reaching Europe is very high. There have been two previous introductions of *A. eugenii* into the EU. The pest has been previously found in greenhouses in the Netherlands (2012) and Italy (2013). On both occasions the pest was successfully eradicated.
- **Entry Pathways:** The most likely entry into the EU is on imports of host plants and their produce (e.g. fruit) from regions where the pest is present.
- **Symptoms:** Infestations are difficult to detect in the early stages when adults first colonise host plants (Fig 1). Detecting adults early can be undertaken by trapping using yellow sticky traps or pheromone lures (Fig 2a). Visual symptoms on host fruits are damage such as feeding scars, aborted fruit around the base of the plant (abscised) and adult exit holes. Infested fruit may also show signs of discolouration (Fig 2).

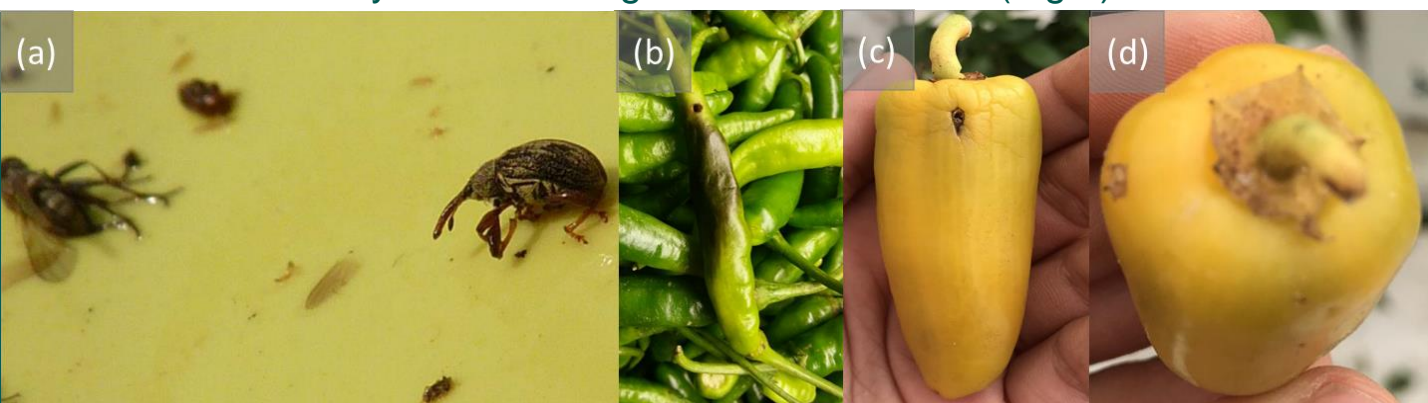
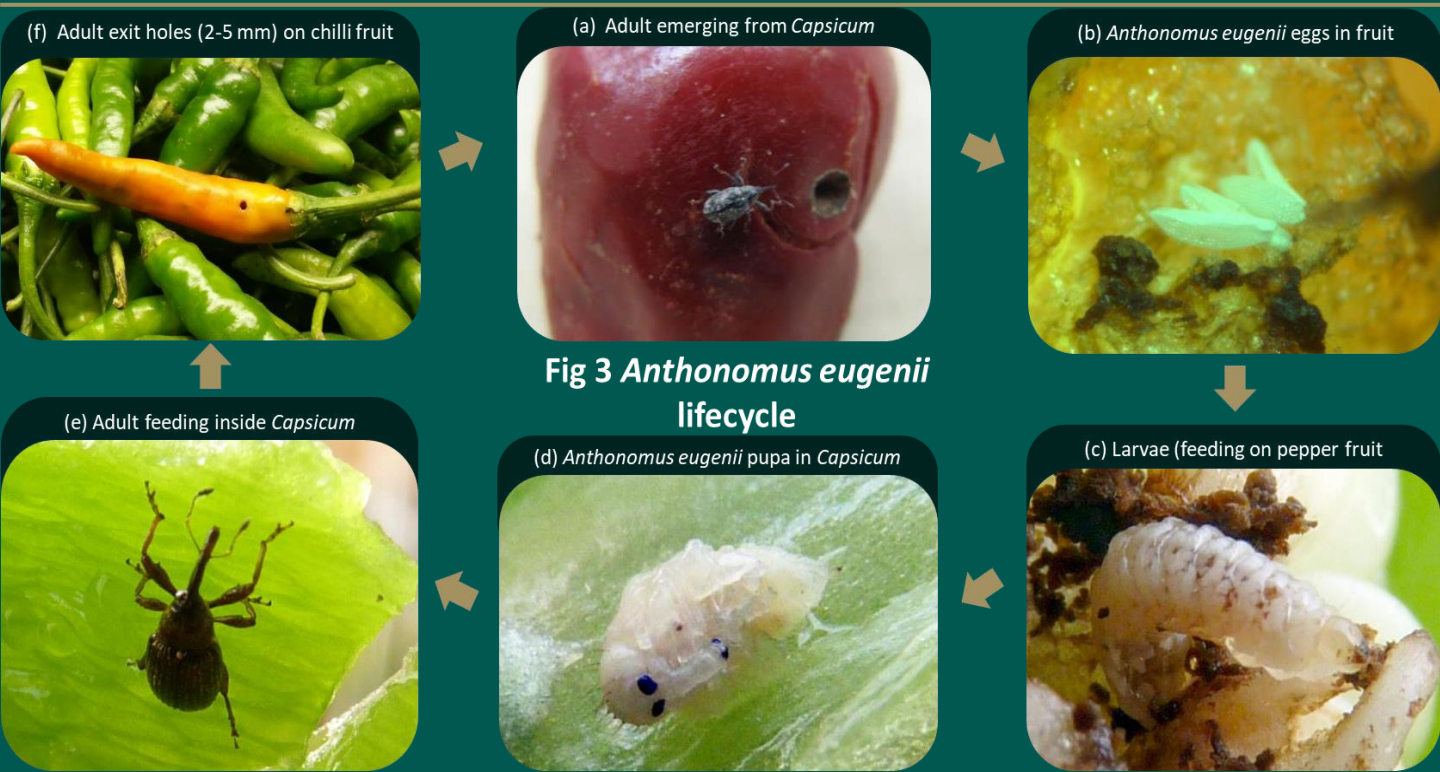


Fig 2: *Anthonomus eugenii* adult immobilized on a yellow pheromone sticky trap (a), discoloration and exit hole on chili fruit (b), adult exit hole on damaged *Capsicum* (c), aborted *Capsicum* with dried calyx (d) More photos are available on the [EPPO Database](#)



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- **Distribution:** *Anthonomus eugenii* is native to the regions of the central America's and Mexico. The pest has come to establish in several Caribbean islands, several southern/eastern US states, Hawaii and some Pacific islands (Fig 4).
- **Dispersal:** Adults are capable of flight, and can potentially spread up to 2 km per day. Populations appear spread no more than 1-2 kms per season.
- **Climatic suitability:** *Anthonomus eugenii* is a tropical / sub-tropical species which struggles to establish in temperate areas. The pest is not considered capable of establishing in the Irish environment.
- **Lifecycle:** Adults are initially attracted to host plants by volatiles released from the flowers and fruit. In host plants males attract the females by releasing an aggregation pheromone. After mating females lay their eggs in feeding punctures made on host plants. While fruits are the preferred site for egg laying, flower buds and open flowers can also be used. Larvae feed on seeds and tissue completing their developmental lifecycle to adults inside the fruit. Larvae undergo 3 developmental stages called instars (1- 5 mm) before pupation. Adults emerge from pupa and may remain inside the fruits for a few days before boring an exit hole and emerging. Adults reach lengths of 2-3.5 mm in length. At cool temperatures (~15°C) it about takes 6 weeks for the pest to complete a lifecycle.
- **If suspected:** If you find suspected symptoms or specimens, please submit images to DAFM at: plantpestreport@agriculture.gov.ie

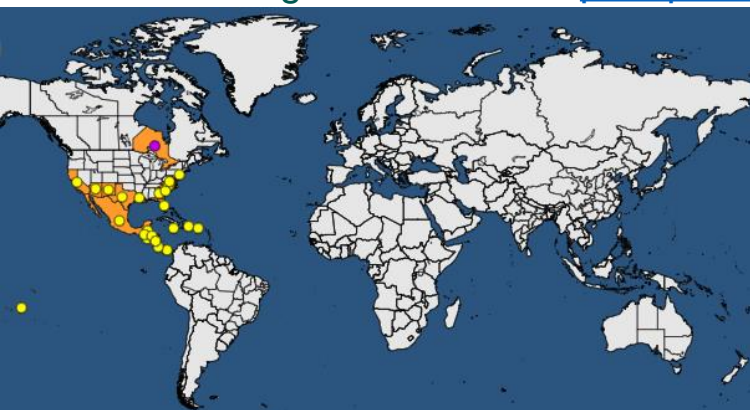


Fig 4: World map of *A. eugenii* distribution taken from the EPPO database ([Link](#))

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



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