

# DAFM Plant Pest Factsheet

## *Popillia japonica* The Japanese Beetle

EU  
Priority  
Pest!

Fig 1: *Popillia japonica* adult foraging through foliage

### Pest Characteristics

- **Pest:** *Popillia japonica*
- **Common name:** The Japanese beetle
- **Hosts:** An extremely polyphagous pest capable of infesting a wide range of different plant genera. Host plants of particular Irish concern include hazel (*Corylus avellana*), apple (*Malus domestica*), cherry (*Prunus persica*), Roses (*Rosa*), maize (*Zea mays*) and grass (Poaceae).
- **Invasive Risk:** *Popillia japonica* has been shown to be highly adaptable outside of its native Asian range, having successfully established in both North America and Europe (Azores, Italy and Switzerland). This pest is regarded as one of the top 20 High Priority plant pest threats facing agriculture in the EU and is regulated as a quarantine plant pest.
- **Entry Pathways:** Host plants for planting; soil infested with eggs, larval or pupa.
- **Adaptability:** *Popillia japonica* would likely establish in the Irish climate, however, it would possibly require up to 2 years to complete a generation given the temperature and time required for its developmental lifecycle.
- **Impact:** Annual costs to control the pest in the US exceed \$460 million.
- **Symptoms:** Larvae feed on plant roots and can cause significant damage to grasslands and other plants. Adult beetles feed on leaves and can severely defoliate a wide range of crops.
- **Visual Impacts:** Severe infestations are easily spotted as adults are often seen in large numbers (Fig 2), larval damage is harder to spot in the field

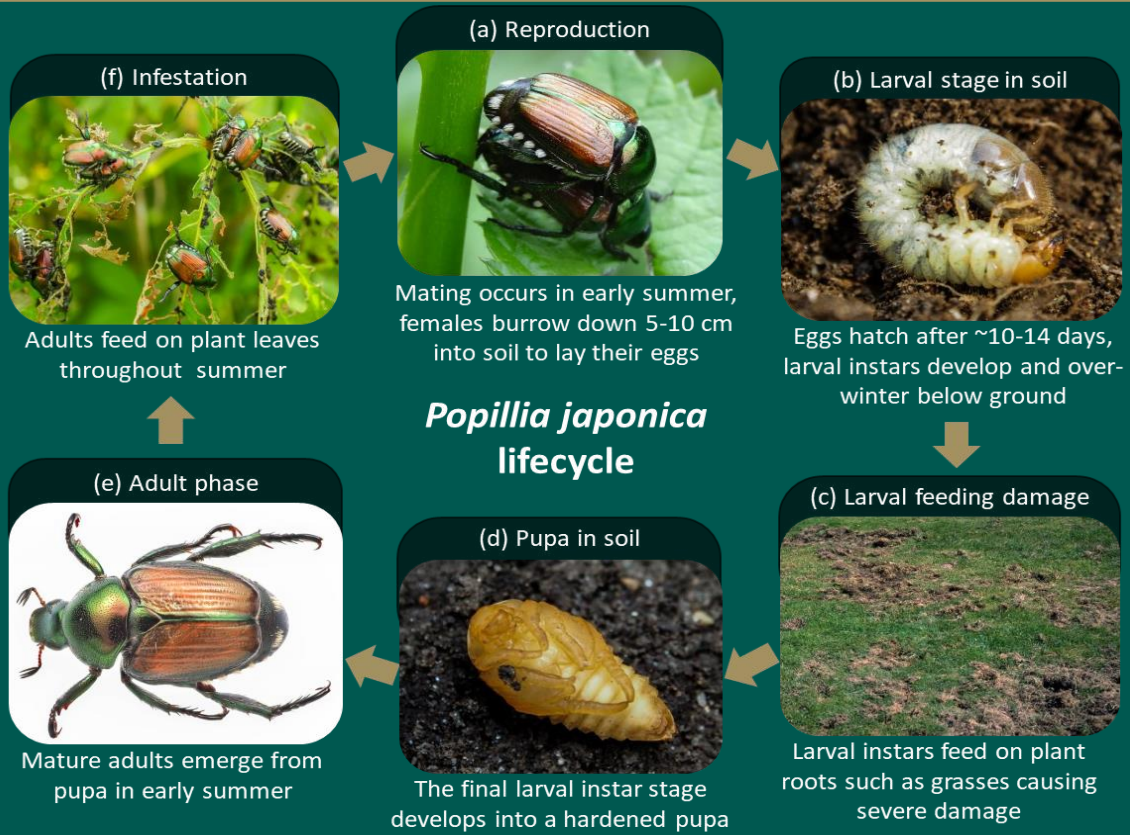


Fig 2: *Popillia japonica* infesting maize (a) and defoliating grapevine (b) and blackberry (c) crops



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- **Lifecycle:** Adults (approximately 12mm) feed on host plant leaves during the summer season, reproduction takes place early in the summer after which females burrow holes in the soil to lay their eggs close to host plant roots. Eggs hatch in a few weeks the subsequent larval stages feed on plant roots for 1-2 years until the final pupal stage. Adults emerge from the pupa in the early summer period.
- **Dispersal:** Adults are strong flyers and can potentially fly 1-8 km after emergence from the soil. The annual pace of spread has been recorded to range from between 3-24 km per year in the USA since the pests introduction. Spread is sometimes accidentally facilitated by human activity.
- **Distribution:** Considered originally native to north-eastern Asia (Japan and east Asia) (Fig 3) this pest has since established in North America (USA ~ 1916) and several European countries (Azores ~ 1970s; Italy - 2014; Switzerland - 2017).
- **If suspected:** DAFM Inspectors conduct annual surveys to substantiate Irelands pest free status for *P. japonica*. If you find a suspected specimen please submit images to DAFM at: [plantpestreport@agriculture.gov.ie](mailto:plantpestreport@agriculture.gov.ie)

Photo credits: All images used in Figures 1, 2 and lifecycle were obtained from the EPPO *P. japonica* images repository: <https://gd.eppo.int/taxon/POPIJA/photos>

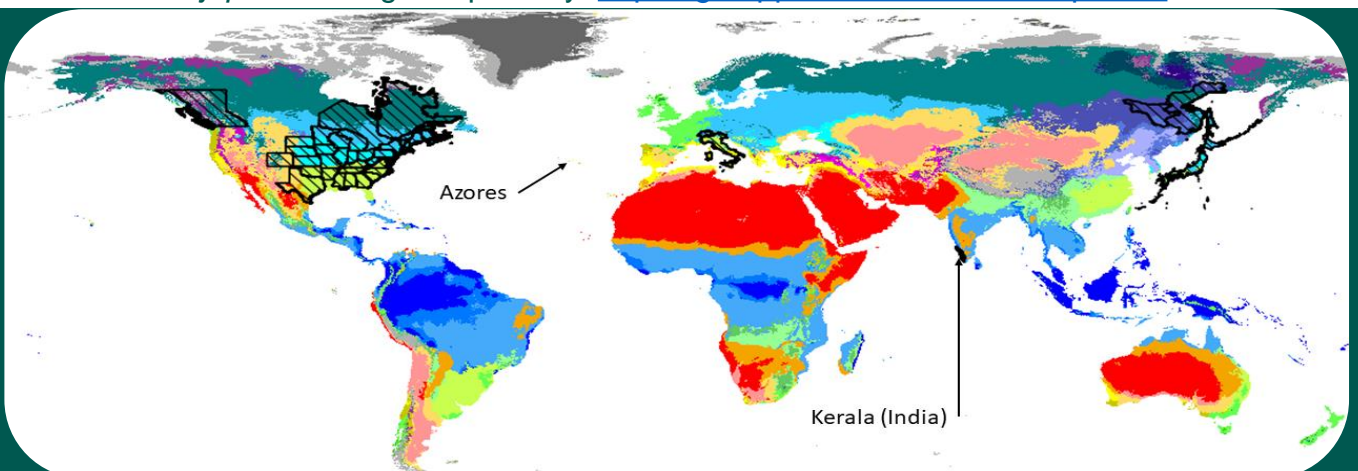


Fig 3: Known distribution of *P. japonica* (cross hatched areas) overlaid on regional climate classifications

