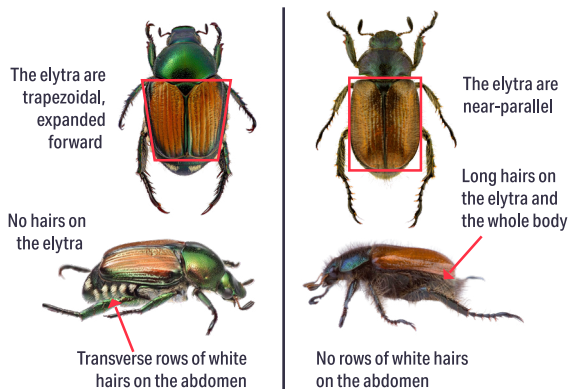


WHAT IS JAPANESE BEETLE AND WHY IS IT A THREAT?

ADULT

The adult of *Popillia japonica* (8-11 mm) is similar to *Phyllopertha horticola* though it can be distinguished by the later by:



POPILIA JAPONICA

PHYLLOPERTHA HORTICOLA

DAMAGE SYMPTOMS

Adult beetles generally feed on leaves, chewing out the tissue between the veins, only leaving the leaf skeleton. Beetles can aggregate and feed in large numbers on the fruit of early-ripening varieties. This feeding renders fruit unmarketable, unless they have been protected by pesticides.

Grubs can feed on the roots and underground stems of a variety of vegetable and garden crops, ornamentals and grasses. Feeding by grubs on roots of tomatoes, strawberries, nursery seedlings, or other crops reduces their vitality and yield and sometimes kills the plants.



LIFE CYCLE

Usually, there is one generation per year. The larvae overwinter in the soil. As soil temperatures rise in early spring, they move closer to the surface and start feeding on roots. After a few weeks of feeding, they pupate. The adult beetles emerge from Mid-May to Mid-July, depending on latitude. Females live 30-45 days and can lay up to 60 eggs in this period, preferably in moist, loamy soil covered with pasture grasses. After hatching, the young larvae feed on fine roots and organic matter and develop until the third larval stage. With declining soil temperatures in late autumn, the grubs move deeper into the soil to overwinter.

1 The Japanese beetle (*Popillia japonica*) is a species of scarab beetle, native to Japan, invasive in North America and Europe. In Europe (A2 Quarantine pest) it was found for the first time in 2014 in Italy. It is highly polyphagous, attacking more than 300 different plant species.

EGG

Spherical, ellipsoidal or slightly cylindrical and usually have a diameter of about 1.5 mm, translucent to creamy white.



LARVA

Translucent and creamy white, covered with scattered long brown hairs interspersed with short, blunt, spines. The head and the 3 pairs of legs are yellowish-brown. As typical of a scarab larva, the grub is C-shaped when at rest.



PUPA

About 14 mm long, pale cream to metallic green depending upon the age.



CONTROL

If detected in a new area report it to the National Plant Protection Organizations.

Following the official confirmation of *Popillia japonica* in an area, a combination of measures should be taken to reduce the population with a view to eradication, if possible, and to prevent spread.

