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The Japanese Beetle, *Popillia japonica* (Coleoptera: Scarabaeidae)

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Popillia japonica (Coleoptera: Scarabaeidae) is a chafer beetle, commonly known as the Japanese Beetle, native to Japan. It is highly polyphagous and an important pest of a range of crops and woody plants. It is a destructive pest of turf, landscape and ornamental plants, is also pest of several fruit, garden and field crops and has a total host range of more than 300 plant species. Both adults and larvae cause plant damage, but the host and nature of damage are usually different. Adult Japanese beetles are brightly coloured with a metallic green prothorax and head and coppery bronze elytra, oval in shape, and vary from 8 to 11 mm in length, and 5 to 7 mm in width. They are most active on warm sunny days. Adult Japanese beetles feed on foliage, flowers and fruits of a wide range of hosts. Leaves are typically skeletonised or left with only a tough network of veins.

The grubs, which primarily feed on roots of grasses, cause considerable damage to pasture, lawn and golf courses. Feeding damage on roots reduces the ability of grass to take up enough water to withstand stresses of hot and dry weather and result in dead patches. Larval food plants are less well documented, mainly because the larvae live and develop underground and are thus more difficult to study, however, since larvae have limited mobility, their food source is mostly determined by where the female beetle oviposits. Females usually lay eggs near the plant upon which they are feeding, though beetles feeding on trees and shrubs usually lay eggs in nearby grass.

Popillia japonica has never been a major pest in Japan. It was accidentally introduced to eastern North America in about 1916 and despite regulatory efforts, it has since spread and become invasive to all eastern States of the USA, in the southern parts of eastern Canada and in Portugal (Azores). The first incursion in mainland Europe occurred in autumn 2014, when large numbers of adults were detected in Ticino Valley Nature Park near Milan, Italy (Lombardy). From here it can easily spread in southern and central Europe. Basic biological information on this beetle will be provided in this communication.

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