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Predatory Beetles: Asian lady beetles

Use Integrated Pest Management (IPM) for successful plant problem management.

Biology

The multicolored Asian lady beetle (*Harmonia axyridis*) adults are strongly oval and convex, approximately ¼ inch long. They are highly variable in color and pattern, but most commonly are orange to red with many to no black spots. Some individuals are black with several large orange spots. The first section between the head and thorax is straw-yellow with up to five black spots or with lateral spots usually joined to form two curved lines, an M-shaped mark, or a solid trapezoid. Larvae are elongate, somewhat flattened, and adorned with strong round nodules (tubercles) and spines. The mature larva is strikingly colored, black to dark bluish-gray, with a prominent bright yellow-orange patch on the sides of abdominal segments 1 to 5. This exotic species is considered to be primarily forest-dwelling, but it is frequently seen in home landscapes and is often the most common ladybeetle species present. There is concern that this species is displacing native lady beetles in some areas of the United States. Unmated females overwinter in large congregations, often in buildings or caves. Mating occurs in spring and eggs hatch in five to seven days. In summer, the larval stage is completed in 12 to 14 days and the pupal stage requires an additional five to six days. In cool conditions development may take up to 36 days.

Adults may live for two to three years and are voracious predators, feeding on aphids, scale insects, insect eggs, small caterpillars, spider mites and leafhoppers. In late summer and fall, populations may increase to high levels, swarming on fences and walls. To date, these populations have not reached the extraordinary levels seen in some areas of the eastern US, where they often enter houses in the fall and need to be controlled. Some invasion of houses has occurred in Seattle and Portland but not on the scale seen in the eastern US.

There are about 90 species of lady beetles in the Pacific Northwest. The five species most likely to be seen in Washington gardens include the transverse, convergent, seven-spot, multi-colored and mite-eating lady beetles.

Prey or Pest Targeted

~ Lady beetles are industrious predators of not only aphids but also many other soft bodied arthropods like mites, thrips, insect eggs, scale insects and mealybugs.

Attracting and Keeping Beneficial Insects in Your Yard

- ~ Avoid regular use of synthetic, broad-spectrum pesticides. Infrequent use of certain narrow-spectrum pesticides is more compatible with some beneficials but generally the less chemical inputs there are, the greater and more diverse the beneficial insect community will be. Extensive lawns are also not conducive to attracting and retaining a diversity of beneficial insects, mites and spiders. Minimize lawn areas and maximize shrub and bush plantings. Many beneficials reside naturally in riparian and other 'natural' areas near to many back yards. Natural dispersion from these refuges ensures that some beneficials will visit back yards but they will not stay unless food, host and shelter resources are available. Native plants have closer affinities with native insects and therefore provide most of these resources. A garden with a good diversity of local native flora in and around back yards, will improve the abundance and diversity of local, beneficial arthropods. Native flora also provides natural overwintering sites for many beneficial insects and it is useful to leave at least a small area of native vegetation undisturbed during fall and winter.
- ~ Some kinds of beneficial insects (e.g. lady beetles, lacewings, predatory mites) are available for purchase from commercial suppliers. However, benefits from introducing these beneficials are usually limited and short-lived. Upon release, commercially obtained lady beetles and lacewings often disperse and may rapidly leave your backyard despite the presence of prey and suitable nectar resources. Generally, it is more effective and sustainable to create a garden habitat that will be colonized by beneficials naturally.

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Images



~ Caption: Adult multicolored Asian lady beetle
(*Harmonia axyridis*) (Coccinellidae)
~ Photo by: D.G. James