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Predatory Beetles: Convergent lady beetles

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

Biology

The convergent lady beetle (Hippodamia convergens) adult is approximately 1/4 inch in length and more oval-shaped than round. The wing covers are orange to red, typically with 12 to 13 black spots. However, the number of spots is variable and some individuals have none. The pronotum is black with two converging white stripes and white edges. The small head is almost covered by the front of the thorax.

The alligator-shaped larva is dark gray-blackish blue with two small, indistinct orange spots on the pronotum and four larger ones on the back.

The pupa is orange and black and often attached to the upper surface of a leaf.

Convergent lady beetles are native and common in gardens. They are also available commercially. Females lay 200 to 500 eggs, which hatch in five to seven days. Development through larval and pupal stages takes three to six weeks depending on temperature and food availability, with one to two generations a season. The largest populations occur during spring; convergent lady beetles tend to disappear when weather becomes hot, especially in eastern Washington. Field evidence suggests that populations migrate to cooler, high-elevation areas in summer and aestivate (summer dormancy).

Congregations of millions of inactive convergent lady beetles may be found during July-August in the Blue Mountains of northeastern Oregon and southeastern Washington. Most of these beetles overwinter in the mountains before migrating back to valley areas in spring.

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: Overwintering aggregation of convergent lady beetles (Hippodamia convergens) (Coccinellidae)
~ Photo by: D.G. James

~ Caption: Larva of the convergent lady beetle (Hippodamia convergens) (Coccinellidae)
~ Photo by: D.G. James

~ Caption: Pupa of the convergent lady beetle (Hippodamia convergens) (Coccinellidae)
~ Photo by: D.G. James