

Ladybug, where have you gone? Aphid fighters tend to roam

July 10 2018, by Dean Fosdick



This undated photo shows an adult ladybug taken on a property near New Market, Va. You can buy ladybugs to clear plants of aphids but the colorful predators have a habit of disappearing soon after release. Adult Ladybugs, like the one shown here hunting for aphids and mites, are great predators but their larvae are even better. Landscape in a way that you can attract mature beetles to lay eggs on plants in your garden and allow them to phase through their various life cycles, hunting as they grow. Commercially sold catch and release ladybugs don't linger long once they're released. (Dean Fosdick via AP)

To some casual observers, ladybugs (or lady beetles) are colorful symbols of good luck—harbingers of fortune and fame. Gardeners value them for their utility as ravenous insects that prey upon plant pests. They buy them by the hundreds online or from garden centers, and then free them to hunt.

But many entomologists believe that commercially sold ladybugs are inefficient for biological pest control, and introduce disease-carrying pathogens to their wild counterparts. They also fear that field-gathering the dormant insects by the millions shrinks the population available to farmers, prompting heavier pesticide use.

The Xerces Society for Invertebrate Conservation, a pollinator preservation group in Portland, Oregon, doesn't recommend buying or releasing non-native lady beetles, especially for yards and gardens, said Executive Director Scott Black.

"Not only do they not really work—there are lots of potential negative implications for beetles where they are collected and where they are released," Black said.

Many lady beetle species overwinter in large numbers in California's Sierra Nevada. "In the spring, adults fly down from the mountains to the valley and coastal areas where they play an important role in controlling plant pests," Xerces says. "Large quantities of lady beetles (in the genus *Hippodamia*) are collected every year at overwinter sites in the Sierra Nevada and sold commercially."

While it may be cheap to buy a bag or more of ladybugs to patrol residential landscapes, it's difficult if not impossible to keep these miniature mercenaries from wandering. Adult beetles need to migrate before they start feeding or laying eggs, so they quickly head to parts unknown when released.

Whitney Cranshaw, a professor and Extension entomologist with Colorado State University, has released lady beetles into his greenhouse several times to feed on aphid-infested plants, only to report negative results.

"Twenty-four hours later I can find about six in the greenhouse after releasing a bag of 1,500," Cranshaw said. "Which means 1,494 largely vanished somewhere in that period. And I do not see any laying eggs for a few weeks."

Mature ladybugs will feed on 20 to 25 aphids per day, but their late-stage larvae will consume 10 times that number, making them far more effective predators, he said.

When improving habitat in your yard or garden, add plants that appeal to beneficial insects as they phase through all of their successive life cycles, Cranshaw said.



This undated photo shows a mantis eating a leaf-cutting insect taken near New Market, Va. Providing pollinator habitat is the best sustainable solution for biological pest control. This adult Praying Mantis shown here is an effective predator but indiscriminate in what it eats. Mantis will stalk any insect within reach, including bees and butterflies. Landscape in such a way that you can attract a variety of beneficial insects to your garden. (Dean Fosdick via AP)

Learn how to identify the insects as they mature. "Don't kill them just because you don't recognize them," he said, a reference to the fierce-looking [ladybug](#) larvae.

While ladybugs are collected almost exclusively in the wild, most other predatory insects sold commercially are reared in insectaries, Cranshaw said.

"Praying mantises are popular, but I'm not high on them, either," he said. "They're generalists and will eat anything out there, including bees and butterflies."

Cranshaw suggests using green lacewings, predatory midges and parasitic wasps for insect control. Look up "beneficial insectaries" for suppliers.

"Sometimes we're simply too trigger-happy," Black said. "We're trying to control things we don't really need to control. Sometimes all you have to do is spray pests like aphids and spider mites off (with water) or use some insecticidal soap.

"Be more attuned to natural systems," he said.

More information: For more about ladybugs and biological control of

insects, see this University of Maine fact sheet:

extension.umaine.edu/publications/7144e/

© 2018 The Associated Press. All rights reserved.

Citation: Ladybug, where have you gone? Aphid fighters tend to roam (2018, July 10) retrieved 18 June 2024 from <https://phys.org/news/2018-07-ladybug-aphid-fighters-tend-roam.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.