

First Sighting – Date: _____ **Location:** _____

Convergent
Lady Beetle

Spotted Lady Beetle

Lady Beetles (Family Coccinellidae)

With 6,000 species worldwide, adult lady beetles, ladybugs, or lady-bird beetles, are among the most familiar insects in the garden. They are beetles, of the order Coleoptera, not true bugs of Hemiptera. The most visible are red & orange with black spots, although colors vary widely - only about 70 of the 450 species found in North America have this traditional coloring. Others are smaller and mostly black. Valued worldwide as beneficial insects providing natural pest control, their name in Iran means “good news”, in Switzerland “God’s little fatty” and the name Lady Beetle comes from “Beetles of our Lady”, the Virgin Mary. More than 170 species have been introduced into the U.S. for natural pest control, as both adults and larvae feed on small insects such as aphids. Some introductions may cause problems (see “Other” for info.). A common native is the Convergent Lady Beetle (*Hippodamia convergens*). Two other Northern VA natives are the Two-spotted Lady Beetle (*Adalia bipunctata*) and the Spotted Lady Beetle (*Coleomegilla fuscilabris*). Patterns vary - for consistent ID of adults markings on the pronotum (plate between head and body) are most reliable. Pesticides, loss of native plants and possibly the spread of introduced exotic lady beetles have led to the decline in several native species. The virtual disappearance of one local native, the Nine-spotted Ladybug (*Coccinella novemnotata*), state insect of New York, led to a remarkable new citizen science project called the **Lost Lady-bug Project**. The good news is this species was just found for the 1st time in the east since 1992 right here in Arlington County! The project is being run by Cornell University (see “Resources”), known for its ornithology lab and support of bird conservation.

Ross Ottens

David Cappaert

Two-spotted LB

Twice-stabbed LB, life cycle

Whitney Cranshaw

Clemson
University

Multi-colored Asian Lady Beetles

Bill Lee

What Lady Beetles Need

Food: Highly valuable as predators, both larvae and adults feed on many soft-bodied insects considered plant pests (aphids, mites, mealybugs, scale insects, etc.). The Convergent Lady Beetle larvae may eat its weight in aphids every day and consume 50 aphids per day as an adult. Lady Beetle adults fly and are mobile, their flightless larvae less so. Once they’ve eliminated prey they move elsewhere. Most species are active from late spring to early fall if food is available.

How You Can Help

- Minimize pesticide use. Even if not directly exposed, both adults and larvae may be harmed by toxic food sources.
- Some species, *Coleomegilla maculata* in particular (another local native) consume pollen as a key part of the adult diet. Introduce native sources of nectar or pollen to attract them.
- Expand your garden. Flowers and vegetable plants, fruit trees and willows, even native grasses, but not lawn and bare ground, attract the Lady Beetle and its food sources.



Audubon at Home in Northern Virginia

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Breeding: Lady Beetles do complete metamorphosis: egg, larvae, pupa, adult. Females lay 20 to 1,000 eggs in spring and early summer. The eggs are 1mm, spindle-shaped and clustered on protected sites, usually near prey such as aphids. The larvae are dark and alligator-like with light bands and six legs. After several larval stages they pupate into oval cocoons lasting 3 to 12 days, after which adults (living up to 1 yr) emerge to mate.

- Lady Beetles are voracious feeders and need to eat many aphids and other prey per day to lay eggs. Food sources are the key. Most species have 1 to 2 generations per year.



- Recognize the larval stage. The small, dark critter looks threatening to some, but is just as beneficial as the adult stage – larvae and pupa shouldn't be removed from plants.

Shelter: They over-winter as adults in groups along hedgerows, beneath leaf litter, rocks and bark and other protected places, including buildings. In spring they disperse in search of prey and suitable egg sites. Note: Adult Lady Beetles are commercially available, BUT we don't recommend buying them as they usually fly away when released.

- Hibernating adults in protected spaces should not be disturbed as they are vulnerable to attack by predators and parasitoids if uncovered.
- Retain some shelter litter (brush, logs) that are accessible in summer as well as winter. Adult Lady Beetles benefit from high humidity and need protection from adverse weather.

Other: Some introduced lady beetles may be displacing our native species. Several natives appear to have declined when & where exotic species were released, like the Multi-colored Asian Lady Beetle (*Harmonia axyridis*) - so successful it's become a nuisance, often over-wintering in buildings. The most reliable ID method with this variable species is a black W or M on the pronotum. Until we learn more, provide as much Lady Beetle habitat as possible to benefit natives.

Lost Ladybug Project, <http://hosts.cce.cornell.edu/ladybeetles/>, provides excellent ID, links to info and seeks participation from kids in tracking declining native species. Photos are available of adults and larvae of many species. View the Audubon video posted in January 2009, which explains the project and interviews two Arlington, Va. kids who turned up a Nine-Spotted Lady Beetle! See if you have a rare Ladybug in your own backyard!

*Above photo credits: eggs-Charles Olsen, larva-Bradley Higbee, pupa-Ross Ottens

Resources:

Native plants—available at Debaggio Herbs, Nature by Design, Merrifield Garden Centers and other nurseries
The Lost Ladybug Project - <http://hosts.cce.cornell.edu/ladybeetles/>

Model Habitat and Observation Sites:

Meadowlark Gardens Regional Park - www.nvrpa.org/meadowlark.html

Riverfarm - www.ahs.org/river_farm/index.htm

Manassas Battlefield Park-www.nps.gov/mana/naturescience/index.htm and **Bles Park** - www.loudoun.gov/prcs/parks/other.htm

photo by
Scott Bauer



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