

## How to Identify Lady Beetles and Why to Conserve Them

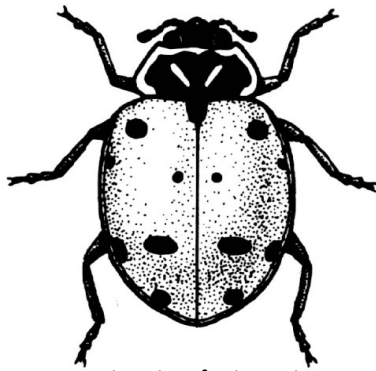
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Lady beetles, also known as lady bugs or ladybird beetles, are some of the most vicious predators in your yard. As both an adult and as a larva these insects are a valuable ally in the landscape, helping to keep pests in check. In particular lady beetles help to control populations of aphids. Some estimates say that one lady beetle larvae will consume 400 aphids and one adult about 5,000. Lady beetles will also consume other pests like the Colorado potato beetle, mealybugs, and scale insects. Basically, anything smaller than they are! Here in Nebraska there are several species of ladybug that can be found.

### How to identify which species is which

All lady beetles are members of a family called Coccinellidae. By and large this group features adult beetles that are half an inch or less in size, with domed backs that give the beetle a characteristic “humped” appearance. They also are quite colorful, coming in reds, blacks, and oranges and may have stripes or spots. These bright colors tell other predators that lady beetles are toxic to consume. Lady beetles perform reflexive bleeding, where a yellow fluid will leak out from them and it stinks and tastes terrible. A bird or other insect predator will experience this once and then forever associate those bright colors with terrible tastes and will avoid eating lady beetles in the future. There are some easy to learn tips and tricks to determine which species of lady beetle you have living next to your home though.

### Convergent lady beetle (*Hippodamia convergens*)



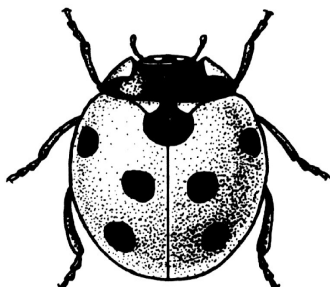
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Ric Bessin

- Identified by the converging white lines on the top of their thorax.
- A native lady beetle that overwinters as an adult in huge groupings
- Can be red or orange-red, with as many as 12 spots or no spots at all

### Seven-spotted lady beetle (*Coccinella septempunctata*)



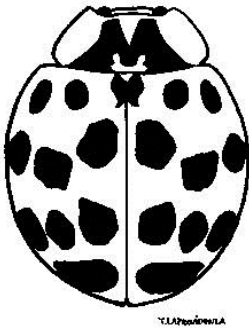
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Kathy Keatley

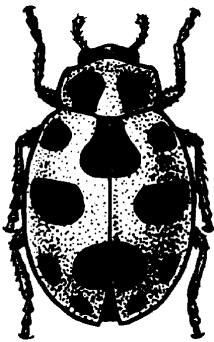
- Identified by the three spots on each side with one in the middle (7 total)
- The “classic” lady beetle we know from art and cartoons
- Full-bodied in appearance with a large domed back and is typically larger than other lady beetles

## Multicolored Asian lady beetle (*Harmonia axyridis*)



- An invasive insect from Asia that can become an indoor pest in the fall as it tries to overwinter in your home
- Can be light or dark orange, can have many spots or none. Easiest to identify with solid or broken "M" on thorax
- Despite pest status is a great bio-control agent

## Spotted, 12-Spotted, or Pink-spotted lady beetle (*Coleomegilla maculata*)



- A native lady beetle that is typically a light red to pink color
- Overall this beetle is almond shaped and has 12 spots, 10 on the elytra and 2 on the thorax
- A beneficial predator, you may also find it eating pollen in your flowers

### How to use them

This voracious appetite makes lady beetles our ally in pest control as biological control agents. When growing a garden or ornamental plantings you should take care to consider insects like the lady beetles when making insecticide applications. This is called conservation biological control, where you take steps to conserve already present biological control agents. Once you lose insect predators it takes time to get them back, typically more time than it takes to pick up more pests. So, try to use "bio-rational" insecticides when caring for your plants like neem, insecticidal soap, Bt, and others. You can also perform augmentation biological control where you release more bio-control agents into the field. Many companies like Koppert Biological, Arbico Organics, Rincon-Vitova, and more will sell you insects like lady beetles for release on your property. This can be quite successful or can fail spectacularly when all the lady beetles fly out of the box they were shipped in and go down the road to a neighbor's house. If you can make row covers over the plants you want to protect and release bio-control agents into the enclosure you will see greater success.

If you want to know more about lady beetles in Nebraska or other species you could encounter then go to:

<http://ianrpubs.unl.edu/live/ec1780/build/ec1780.pdf>

Or google: UNL EC1780