Scientists and students try to encourage ladybug love

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Scientists in a South Dakota lab are on a Noah's Ark-like mission to save ladybugs on the brink of extinction.

Among their tactics: Getting students involved in a nationwide search and creating optimum lab conditions for ladybug reproduction.

The Lost Ladybug Project has important agricultural and environmental implications because ladybugs dine on crop-damaging pests, says Laura Jesse, an extension entomologist at Iowa State University's Plant and Insect Diagnostic Clinic.

A healthy ladybug population can keep pests low, protecting corn, soybeans and other crops and reducing the need for insecticide by eating certain types of bugs that cut into crop yields.

"They're cute and cuddly as adult insects, but they're predators, make no mistake," says Mike Catangui, an extension entomologist at South Dakota State University. "There's a big economic value of this. ... They're working-class bugs, but we don't have to pay them."

The South Dakota researchers work with colleagues at Cornell University in Ithaca, N.Y., to find out more about what type of bugs live in which parts of the nation. Three species are the prime targets of the Lost Ladybug Project: the nine-spotted or C9s, the transverse and the two-spotted.

At the Department of Agriculture in Brookings, S.D., the lights and temperature are turned on and off to simulate the 24-hour cycle of a warm summer day, Catangui says. That keeps the more than 1,000 nine-spotted and transverse ladybugs at the lab eating and making more ladybugs.

As part of the project, schoolchildren across the United States are urged to find ladybugs in lawns, parks and elsewhere this spring and summer to help scientists in their quest to return lost species of ladybugs back to their native environments. Researchers work with teachers, 4-H clubs and after-school programs to get the word out about the project, Catangui says.

In the 1970s and '80s, scientists were startled to see rapid declines in some species of ladybugs, says John Losey, an associate professor at Cornell who co-founded the Lost Ladybug Project.

"We had native species that used to be continentwide and very common that had now declined to the point where we feared that some of them were going extinct," Losey says. "Once we know why they declined, we will be on our way to being able to help them and other species in the same predicament."

The nine-spotted ladybugs nearly vanished from the Plains, but scientists hope to reintroduce some to the wild -- perhaps as early as this year, Catangui says.

Researchers have spent years trying to find out what caused the decline, and they hope the Lost Ladybug Project will help them find answers. U.S. Department of Agriculture research entomologist Louis Hesler says invasive beetle species imported from Europe and Asia are possible suspects.

The project began in 2000, when Cornell scientists partnered with 4-H cooperative extension master gardeners to survey ladybug populations in New York. South Dakota researchers joined the effort shortly after that, and a $2 million grant from the National Science Foundation helps fund it.

About 2,127 people, including about 1,075 children younger than 14, have taken part, says Rebecca Rice Smyth, who does outreach for the Lost Ladybug Project.

Children and others who find ladybugs are asked to enter descriptions and photos at the project's Web site, LostLadyBug.org. The search is nationwide because ladybugs are found in all 50 states, Losey says. The number of images on the Web site is nearing 5,000, he says.