

More milkweed in cities could save monarch butterflies, Field Museum researchers find

Milkweed is the only plant the monarch butterfly — Illinois' official state insect — can lay its eggs on, and the plant is rapidly disappearing.

By Syd Stone | Jun 21, 2019, 12:01am CDT



A monarch butterfly. | AP file photo

If you like monarch butterflies, go plant some milkweed.

Now. In your yard.

Two Field Museum researchers led two new studies that found planting milkweed in cities is one of the best ways to save the monarch butterfly, Illinois' state insect.

"For a very long time, cities have essentially been written off," said Abigail Derby Lewis, a senior conservation ecologist at the museum who helped write one of the studies.

But cities are “very undervalued and under-recognized for the role that they play in wildlife conservation” Lewis added. “This research really shifts that narrative.”

The studies, published Friday in the “Frontiers of Ecology and Evolution” journal, found that saving monarchs would require planting 1.8 billion stems of milkweed across the United States. The country’s monarch population has declined over 80% in the past 20 years, Derby Lewis said.

Monarchs and milkweed are mutually dependent; milkweed — **it's actually a wildflower, not a weed** — is the only plant the butterflies can lay their eggs on, but the plant is rapidly disappearing.

There are 24 species of milkweed grow that naturally in Illinois; five are listed as endangered in the state and one is listed as threatened by the U.S. Fish and Wildlife Service.

In May 2017, **the Illinois Department of Transportation announced** it would reduce the amount of land being mowed in an effort to encourage milkweed growth. State officials are monitoring the approach and have reported increases in pollinator populations.

The second study, led by Field Museum conservation ecologist Mark Johnston, maps where milkweed already grows in urban areas and where there is potential for more growth. The study found that **even though urban areas comprise about 3%** of U.S. landmass, cities can support 15 to 30% of the milkweed needed to save monarch butterflies.

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“Cities have this outsized implication,” Derby Lewis said. “That’s a a really large percentage for such a small amount of the U.S. landmass.”

Johnston said the studies helped identify the best places and most effective ways to get landowners to transform their lawns and gardens into habitats for monarchs. The studies found the best places for milkweed to grow in cities are in residential spaces and that it’s important to teach residents how to create these habitats.

This research also has wider implications for how cities can support other forms of wildlife, Derby Lewis said. Learning how to protect monarchs also helps protect other pollinators which are essential for crops in the ecosystem.



Mark Johnston and Abigail Derby Lewis of the Field Museum were lead authors on two new studies that looked at how to save the monarch butterfly. | Courtesy of Field Museum

However, Johnston said, there are a few challenges to creating healthy, high-quality environments for the pollinators. Milkweed and other native flowers don't have the best reputation among everyday gardeners because having "weed" in the name doesn't necessarily help the public's perception.

"We need a real rebranding campaign," Derby Lewis said.

Johnston and Derby Lewis both hope their research will help residents rethink their perceptions of a normal home garden or yard.

"We're trying to make it so that it starts to happen in many different parts of the city where one person putting in a native garden in their front yard spurs their neighbors to ask about it," Johnston said. "Then maybe that person becomes an ambassador for talking about monarchs and pollinators."