

## Could monarch butterflies disappear?

'Citizen scientists' and inmates help with five-year study



Washington State University professor David James used tags to track monarch migration through the Pacific Northwest. His five-year study has provided information on how residents can help save the declining butterflies. (David James)

By Annette Cary, Tri-City Herald

Published: June 28, 2018, 9:56 PM

TRI-CITIES — The question of where Mid-Columbia monarch butterflies migrate in the West isn't a question anymore, thanks to a Prosser researcher.

With new information from a five-year study, WSU professor David James has advice for how area residents can help save the declining population.

James' study of about 15,000 monarch butterflies had no research money, so he relied on volunteer "citizen scientists" and inmates at the Washington State Penitentiary in Walla Walla for help.

<http://www.columbian.com/news/2018/jun/28/could-monarch-butterflies-disappear/>

The inmates raised, tagged and released butterflies, and some wild butterflies were tagged.

Monarchs are a dwindling species in the West.

Research by associate WSU professor Cheryl Schultz put the risk at 72 percent that not enough of the monarchs will be migrating in the West within 20 years to sustain the population. In 50 years, the risk is 86 percent.

It's estimated that Western populations of monarchs, once a common summer sight, have declined 90 percent during the past two decades.

But thanks to James and hundreds of volunteers, more is known about the species.

James found proof that monarch butterflies migrate from the Northwest to California in late summer and fall, a journey averaging nearly 500 miles.

"These butterflies averaged almost 40 miles of travel each day," he said. "That's pretty remarkable for such a small creature."

When they come out of the skies to land in the evening, they look for nectar then and again in the morning before they continue their journey.

Residents along their route from British Columbia down to California can help by planting flowers attractive to monarchs that bloom in the late summer and fall.

Rather than roses and other highly bred ornamentals, monarch butterflies depend on flowers like daisies, asters and buddleia, a flowering plant commonly called butterfly bush.

In the Mid-Columbia, native rabbitbrush, with its bright yellow blossoms, is a favorite when monarch butterflies are heading south, James said.

One unintended benefit of James' research has been adding to the monarch butterfly population.

About 875 wild monarchs were tagged with a small sticker attached to their wings. The tag includes an email address and a serial number for the butterfly.

But 13,778 monarchs were tagged and released after being raised specifically for the research project. About a third of those were raised by inmates in Walla Walla.

During the first five years of the project, with findings published in the Journal of the Lepidoptereists' Society, 60 tagged butterflies were later spotted more than six miles from where they were released.

On average, the 60 tagged butterflies found traveled just shy of 500 miles.

The longest journey recorded was a butterfly James released in Yakima that was fished out of swimming pool near Goleta, Calif., a straight-line distance of 845 miles.

The project continues with the help of volunteers.

Even if the monarch butterfly is not listed as a threatened species, the project has raised public awareness of its plight, he said.