

Conservation Corner

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As April draws to a close, Conservation's trees and shrubs have all arrived and are quickly being planted in yards and windbreaks around the county. I'm also happy to report that our honeybee packages have arrived and two new bee colonies are quickly laying brood and collecting nectar while pollinating flowering plants and trees in fields and orchards around the county.

As many of you know, honeybees have recently fallen on hard times, but some of you may not know that our native bees are also in peril. In our March 11, 2015, article we covered the lifestyle and story of bumblebees, including four species that were threatened and in severe decline here in North America. I'm sad to report that on March 21 of this year the Rusty-Patched Bumblebee became the first North American bumblebee officially listed in danger of becoming extinct under the Endangered Species Act.

The Rusty-Patched Bumblebee, *Bombus affinis*, is named after the rusty reddish patch centered on the backs of all workers and males. Twenty years ago, they were a common sight across 28 states and 2 provinces in the Eastern and Midwestern United States as well as southern Canada. Today their numbers have declined by 87% and they are found only in a few isolated areas.

The Rusty-Patched Bumblebee has an interesting life cycle. Early each spring, a solitary queen will find a nest and begin collecting nectar and pollen and laying eggs. As soon as the first workers hatch, they begin collecting food, defending the colony, and caring for the young. In late summer, new queens and males will hatch and mate with queens and males from other colonies. In the fall, the founding queen, workers, and males will all die. Only the new queens will survive the winter in a form of hibernation known as diapause.

Bumblebees are a keystone species. Wildlife ranging from songbirds to grizzly bears depend on the seeds and fruits of the many flowering plants they pollinate. Bumblebees are also important to growers of blueberries, cranberries, clover, and tomatoes as the only pollinator to perform "buzz pollination." As general foragers, bumblebees don't depend on any one flower. However, some flowering plants do depend on bumblebees to vibrate and release their pollen.

Bumblebees require three different types of habitat in close proximity to one another – foraging, nesting, and hibernating. Just as in the Monarch butterfly crises, the arrangement and distribution of these resources across the landscape are as critical as the resources themselves.

How can we help? We probably can't change agricultural practices, stop urban sprawl, or alter global warming patterns. But we can all plant a flowering tree or a few native plants in our yards and gardens. We can all leave some undisturbed areas for nest building. We can all limit or eliminate our use of pesticides and chemical fertilizers. Working together, we can all help the bumblebees over these hard times. We trust more good times lie ahead for the Rusty-Patched Bumblebee.

