

## Endangered Species Found on Local Land Trust Properties

The first bumble bee species placed on the Fish and Wildlife endangered species list has been sighted on three properties owned and managed by Bur Oak Land Trust, a conservation non-profit based in Johnson County. The rusty patched bumble bee, *Bombus affinis*, was added to the endangered species list in January of 2017 after its population declined by 87% within its historical range over the last two decades.

Last year, rusty patched bumble bee sightings were confirmed on Bur Oak Land Trust's Turkey Creek Nature Preserve. The search continued for the bees on Bur Oak Land Trust properties after Property Stewardship Specialist Jason Taylor found a rusty patched within his small urban prairie in Iowa City. After confirming a second specimen in the Belgium Grove prairie, a volunteer bee survey event was held in August to attempt to verify the species on additional properties. Sixteen community members attended the event, which started with a field identification tutorial before the group set out to search within the prairies. "I thought it would be a great opportunity to help to document the bee in Johnson County," said Jim Durbin, from Marion, Iowa. "Along with the rusty patched, I photographed two other species of bees and four species of butterflies during the survey."

Along with the initial sighting at Belgium Grove near Hills, Iowa, the species was found on two properties during the August survey: Big Grove Preserve near Solon, Iowa, and Pappy Dickens Preserve, in northern Iowa City. Confirmation of the sightings were provided through submission of photographs to [bumblebeewatch.org](http://bumblebeewatch.org), a citizen science project established to help track bumble bee populations in the United States.

While the historic range of *B. affinis* did not include eastern Iowa, threats such as habitat fragmentation, diseases spread by non-native bees, and increased pesticide application are causing the species to expand its range. Based on citizen science sightings, much of Johnson County is listed as an area of high potential for the species. "Since the rusty patched is a declining pollinator, and one whose range is moving further into Eastern Iowa, two things we can do are spread awareness about their presence and help provide habitat," said volunteer Sheila Ongie. "I'm glad to see Bur Oak Land Trust doing both of these through their conservation properties, and their volunteer days."

In order to provide better habitat for the bees on the properties, additional management projects have been planned by Bur Oak Land Trust staff, including the removal of invasive plant species, the introduction of additional native prairie plants, and prescribed fire operations during times when the bees are dormant to help restore the landscape's fire regime.

Accredited nationally by the Land Trust Accreditation Commission and one of six land trusts in Iowa, Bur Oak Land Trust has been protecting natural land in and around Johnson County since 1978. The activities of Bur Oak Land Trust impact environmental conditions through the area by improving water quality; removing invasive plant species; bringing back native plants and animals; and creating habitat to enhance species diversity. The land acquisition, restoration, and stewardship activities of Bur Oak Land Trust are done also for the benefit of the physical and mental health and well-being of Iowans.

For more information on the work and nature preserves of Bur Oak Land Trust, visit [www.buroaklandtrust.org](http://www.buroaklandtrust.org) or call 319-338-7030.