

Mowing the lawn less often improves bee habitat

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Credit: USDA Forest Service

When it comes to improving habitat for beleaguered native bee species, doing less may accomplish more. New research by the USDA Forest Service and partners funded by the National Science Foundation found that mowing the lawn less frequently can significantly improve pollinator habitat.

Susannah Lerman, a research ecologist with the USDA Forest Service's Northern Research Station, and her collaborators explored whether different [lawn](#) mowing frequencies (1, 2 or 3 weeks) influenced bee abundance and diversity in herbicide-free suburban yards in Springfield, Massachusetts. Their study, "To mow or to mow less: Lawn mowing frequency affects bee abundance and diversity in suburban yards," was published this week in the journal *Biological Conservation*.

"Bees and other pollinators provide essential ecosystem services in agricultural and natural landscapes, and they are experiencing severe declines on a global scale," said Tony Ferguson, Director of the Northern Research Station and the Forest Products Laboratory. "With this work, USDA Forest Service science and our collaborators are identifying ways that we can all contribute to improving bee habitat in our own back yards."

The research team found that while mowing every 3 weeks resulted in as much as 2.5 times more lawn flowers (aka dandelions and clover) and greater diversity of bee species, the abundance of bees was greatest when homeowners mowed every 2 weeks.

"We found that backyards can be a surprisingly beneficial habitat for bees," said Lerman, the study's lead author. "Mowing less frequently can improve pollinator habitat and can be a practical, economical, and timesaving alternative to lawn replacement or even planting pollinator gardens."

The experiment in Springfield included 16 residential lawns; Lerman said that more research will be needed to determine whether easing up on lawn mowing has a similar effect on bee abundance in other cities. There are an estimated 40 million acres of lawn, including yards, athletic fields, and golf courses in the United States, making lawn management significant in efforts to preserve pollinators.

Homeowners who participated in the study appreciated the opportunity to be part of a research effort as well as the lawn mowing services. "While I would never 'let my lawn go,' I can certainly let it get a little higher than my neighbors' lawns and not feel guilty," said Joan Kavanagh, a study participant.

For this study, Lerman and her colleagues documented 93 species of bees with supplemental observations reaching 111 bee species. This represents roughly a quarter of [bee species](#) recorded in Massachusetts. "Cities may harbor even more diverse and abundant populations of native bees than nearby natural areas," Lerman said. "Lawns managed to promote bees have the potential to improve bee abundance."

In the course of the study, researchers found a bee that had not been documented in Massachusetts since the 1920s but is commonly found in Maryland.

More information: www.nrs.fs.fed.us/pubs/55816

Provided by USDA Forest Service

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