

Northeastern IPM Center Partnership Grant Impacts

Northern New England Pollinator Habitat Working Group (2014–2015) Project Director: Amy Papineau - University of New Hampshire Author: David Lane - Cornell University

THE NEED

- Bees are responsible for pollinating approximately \$15 billion worth of crops in the United States each year.
- Pollinators play a key role in the successful production of agronomic crops and are essential to maintenance of biodiversity across the landscape. **Decline of pollinators nationwide has been linked in part to habitat loss.**
- Maine, Massachusetts, New Hampshire, and Vermont contain **over 400 species of bees**, about which little is known except for a few common species. **Threats to bees include habitat loss, pests and pathogens, pesticides, and climate change.**
- As honey bee populations decline, there is an increased reliance on native bees to pollinate crops.
- Therefore, there is a need for understanding of pollinator populations and habitats in the Northeast.



Modern agriculture can decrease habitat, and pesticides and herbicides can kill pollinators along with their forage. Photo: Mid-Atlantic Field Crop Management Guide (2019).



The Northern New England Pollinator Habitat Working Group. Photo: Amy Papineau, University of New Hampshire.



Augochlora pura on *Gaillardia* sp. in Blue Hill, ME. Photo: A. C. Dibble.



Bombus impatiens visiting a flower of *Impatiens capensis.* Photo: Megan Leach.



Bombus terricola on *Chamerion angustifolium* at Mizpah Hut, Mt. Pierce, White Mountain National Forest, NH, elev. 1158 m. Photo: A. C. Dibble.

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IMPACTS

- Attendees at the 2015 Pollinator Summit reported 147 actions that they intended to implement to support pollinators, and as a result, **an estimated 36,547 people were reached** with education about pollinators and pollinator habitat.
- Bees and Their Habitats in Four New England States was published (below).
- As strategies for protecting pollinators are increasingly adopted, local pollinators are expected to become more abundant, which may translate to increases in yield and quality for agronomic crops, decreased risk and costs of reliance on imported crop pollinators, and increased sustainability of ecosystems.
- As public awareness of the need for pollinator habitat increases, opportunity exists for the green industry to benefit from sales of bee-friendly plants and marketing of themselves as bee-friendly companies.



Bees and Their Habitats in Four New England States

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"Additions of floral resource habitat . . . can increase pollination services in nearby crop fields" (Morandin and Kremen 2013, Wood et al. 2015, Pywell et al. 2015, Venturini et al. 2017b)



University of Vermont researchers studied the foraging preferences of pollinators on native herbaceous flowering species versus native cultivars. Photo: A. White.

WEBSITES

extension.unh.edu/resource/bees-and-their-habitats-four-new-england-states-bulletin

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