



Executive Summary

On March 17, 2016, the Vermont Agency of Natural Resources and its Endangered Species Committee convened “Beetles Bees Butterflies: A Symposium on Vermont’s Pollinators” at the ECHO Center in Burlington, VT. The symposium hosted 175 attendees that included scientists, policy makers, farmers, bee keepers, gardeners, and representatives from non-profits. Morning and early afternoon presentations by Vermont biologists outlined the problems facing pollinators, while late afternoon breakout groups addressed specific issues and action items needed to promote pollinator health and protection.

The Problems

Pollinators such as bees, moths, butterflies, flies, and beetles are important for the propagation of plants for food, gardens, wildflowers and trees. But their populations are in decline throughout Vermont. Pollinators fall victim to pesticides targeting other species, including newer systemic pesticides put on seeds of agricultural plants that emanate from plants as they grow. They face habitat loss due to development of roads, lawns and buildings, and are losing their forage as farmers and homeowners use herbicides to kill the ‘weed’ plants they feed on. Bee species are also dying from pathogens, particularly fungi and parasites contracted from infected bees imported for agriculture. While the situation is challenging, it is not intractable. Potential solutions are readily available and Vermonters can use the following suggestions to take action.

The Solutions

Legislative Brainstorm

- Create a financial incentive, modeled after a ‘carbon tax,’ to farmers who provide pollinator habitat
- Create a system to label products that come from ‘bee-friendly farms’
- Create a system to label plants sold to landscapers and gardeners as ‘pollinator-friendly’
- Require labeling of plants sold to landscapers and gardeners that are treated with pesticides
- Integrate pollinator forage into permitting requirements for solar fields, in addition to shrub habitat surrounding the fields
- Integrate pollinator forage into stormwater planting requirements
- Create a habitat mitigation fee from development permits that farmers can draw from to enhance pollinator habitat
- License pesticide applicators and require that pesticide applications be reported to Vermont beekeepers
- Regulate bees imported into Vermont and prohibit the importation of infected bees

Currently in legislature:

H 539 – Creates a Pollinator Protection Committee

H 861 – Gives the state authority to regulate pesticide-treated articles, power/telephone poles, seeds



Outreach and Education

- Focus on small, frequent strips of habitat and hedgerows - as Taylor Ricketts put it "These are not grizzly bears, and you don't need a Yellowstone-sized piece of habitat to protect them."
- Educate homeowners and landscapers on leaving native plants and flowers by altering the timing of mowing/weeding, particularly on golf courses, school grounds, etc.
- Integrate native and pollinator-friendly plants into the Vermont Master Gardener curriculum
- Partner with the Vermont Flower Show to do pollinator habitat demos and displays
- Partner with the Department of Transportation to encourage mowing schedules that promote wildflowers and other pollinator-friendly plants
- Target nurseries and garden store employees to provide educational programs on native, pollinator-friendly plants
- Work to shift the public paradigm away from clean, orderly landscapes towards more disorderly landscapes with a variety of "pest" species, including dandelions and bugs
- Create 'Pollinator Gardens' and landscapes, starting with the statehouse (modeled after the White House effort with bees), similar to WWII 'Victory Gardens'
- eButterfly (modeled after eBird) is now ready for public use. Recruit experts to train others to use it
- Promote VT Lepus ListServ, an email list for discussion of Lepidoptera (moths and butterflies), as a source for people to report trends or sightings

Research and Professional Priorities

- Identify where threats to native plants and threats to pollinators overlap and work to address them
- Investigate which cultivars (plant varieties used for landscaping or agriculture) are not beneficial or harmful to pollinators
- Integrate pollinator habitat management into practices promoted by landowners enrolled in the federal EQIP (Environmental Quality Incentives Program) through the Farm Bill
- Work with landowners to protect habitat at known locations of threatened/endangered bees
- Focus monitoring efforts on butterflies – they are beautiful and less challenging to ID than other pollinators
- Promote a survey of butterflies in every town forest, focusing on a specific type of plant to track changes over time on the species that visit that plant
- Investigate opportunities to manage species other than native bees, particularly twig-nesting bees
- Create 'Best Pollinator Practices' for farmers and test them for effectiveness with willing farmers, disseminating worthy practices to the wider farming community
- Decide where the professional community stands on the propagation of non-native bees (some are great pollinators) and growing plants outside our climate zone to provide bees with forage when weather is unseasonal
- Start a wild seed project in Vermont and encourage other states to follow suit
- Create a list of pollinator-friendly plants and activities (Bob Popp and Elizabeth Spinney, ANR), including trees encouraged for urban areas