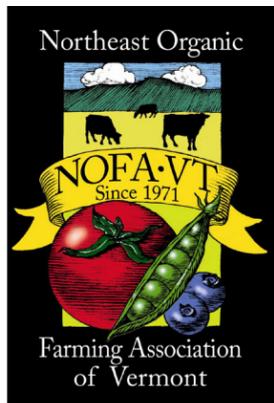
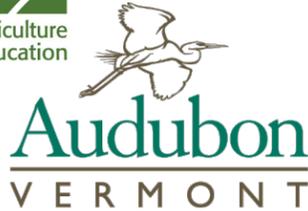


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Special thanks to our sponsors of the evening reception



Join the conversation!
Learn about the complex challenges facing pollinators in Vermont and help identify strategies to protect these essential species.

Symposium Agenda

8:30 AM Open for registration and coffee

9:00AM **Welcome and opening remarks**
Deb Markowitz, Secretary of the Agency of Natural Resources
Chuck Ross, Secretary of the Agency of Agriculture Food and Markets

9:15 AM **Pollinators and their importance to crops, wild plants, and people**
Taylor Ricketts, Director, Gund Institute for Ecological Economics.

Nearly 90% of flowering plants in the world, including two-thirds of crops, rely on pollinators. Pollination accounts for roughly 10% of the annual economic value of agriculture in the United States, worth more than \$10 billion per year. Managed honey bees are often deployed as pollinators on farms, but for many crops, including apple, blueberry, tomato and squash, the most important pollinators are wild bees, of which there are more than 4,000 species in North America. The abundance and diversity of these pollinators depend on farm management (including pest control and tilling practices), and landscape factors (including proximity to natural lands and other flowers). Ongoing losses of managed and wild bee populations threaten natural plant communities, farm productivity, and food supplies. These problems are being felt globally, across the U.S., and here in Vermont.

10:00 AM Status and trends of wild insect pollinators in Vermont and beyond

*Leif Richardson, Gund Institute Research Fellow, Moderator;
Kent McFarland, co-founder, Vermont Center for Ecostudies and
Mark Ferguson, Natural Heritage Zoologist, VT Agency of Natural Resources.*

There are widespread reports of pollinator declines, with corresponding concern about negative consequences for agriculture and ecosystem function. Honey bees are threatened by a number of factors related to their intensive management for crop pollination, including worldwide transport of parasitic mites and diseases, and nutritional stress and pesticide exposure related to the practice of migratory beekeeping. By contrast, threats to wild bees and other pollinators (e.g. flies, butterflies and beetles) include habitat loss, pesticides, pathogens and climate change. A recent study identified critical gaps between supply of and demand for pollination services by wild bees at a national scale. There is also evidence of pollinator decline in Vermont, where nearly half of native bumble bee species have been imperiled. Three bee species were recently afforded protection by the state's Threatened and Endangered Species law, and changes to land management practices could aid restoration of these important pollinator populations.

11:00 AM Break

11:15 AM Towards land management practices that conserve pollinators

*Vern Grubinger, University of Vermont Extension Professor
Toby Alexander, State Biologist, USDA Natural Resources Conservation Service*

Speakers will address the challenges and opportunities for farmers, landowners and land managers to engage in pollinator conservation efforts in Vermont. Current land management practices and policies that affect pollinators will be discussed such as pesticide use, cropping patterns, pollinator habitat protection, management and restoration, and efforts to incorporate pollinator conservation into state and federal programs aimed at people that work the land.

12:00 PM Lunch and Keynote: The national strategy to promote the health of honey bees and other pollinators and what it means for Vermont

Rick Keigwin, Deputy Director for Programs, EPA Office of Pesticide Programs

*Introduction by Cary Giguere, Vermont Agency of Agriculture, Food & Markets
and member of the Vermont Pesticide Advisory Council*

1:30 PM Lightning rounds

A series of experts on pollinator protection will provide three minute presentations that will serve as spring boards for the round table discussions immediately following.

2:00 PM Roundtable discussions

Participants will have in-depth discussions on some of the issues raised in the lightning round session. Groups will be asked to consider the pros and cons of potential approaches to addressing the complex challenges of protecting pollinators.

Producing with pollinators in mind – *John Hayden, The Farm Between*

Landscape design for protecting our pollinators and the important role of home gardeners – *Jane Sorensen, Landscape Architect*

Managing habitat for pollinators – *Jarrold Fowler, Pollinator and Conservation Biocontrol Specialist, New England and Northeast Region, The Xerces Society for Invertebrate Conservation*

The Importance of pollinators to our native flora – *Jenny Ramstetter, Professor of Conservation Biology, Marlboro College and member of the ESC Science Advisory Group*

The economics of pollination: Should we be paying for ecosystem services? If so, how? – *Charlie Nicholson, Ph.D. candidate, Gund Institute for Ecological Economics, UVM*

The State of Vermont Pollinator Protection Committee – *Rep. Carolyn Partridge, D-Windham*

Vermont's threatened and endangered bumblebees – *Mark Ferguson, Natural Heritage Zoologist, Vermont Fish & Wildlife*

Developing a program to monitor the trends and status of pollinators – *Kent McFarland, co-founder, Vermont Center for Ecostudies*

Beekeeping 101: The challenges of keeping honeybees – *Michael Willard, Vermont Beekeepers Association*

Alternative pollinators for agriculture – *Leif Richardson, Gund Institute Research Fellow, UVM*

3:30 Report back and next steps

We will reconvene with a list of action items that identify strategies to promote pollinator protection.

5:00 Lake View Reception

Join us on the upper deck of ECHO to round out the day and enjoy the center.