

Northeast Pollinator Priorities

May 21, 2012

In May 2012, the Northeast Pollinator IPM Working Group held a one-day regional Pollinator Symposium, hosted by the Center for Pollinator Research at Penn State University. The Symposium featured 22 oral presentations and 58 registrants from Pennsylvania, New Jersey, New York, Delaware, New Hampshire, and West Virginia. Each attendee was asked to anonymously provide his/her list of top priorities for research on pollinators in the Northeast region. Participants were divided into small working groups to further develop these ideas. The working groups presented the results of their discussions, including a detailed list of research priorities, at the conclusion of the Symposium. Each participant then voted on his/her top five priority areas. The information was compiled and sent to the full membership of the NE Pollinator Working Group and the Center for Pollinator Research for further discussion and evaluation.

Below is a listing of the resulting priority areas. Note that while these have been ranked based on the votes of the symposium participants, all areas are believed to be critical to the conservation and enhancement of native pollinator populations in the Northeast.

Priority Areas

1. Integrative analysis of impacts and mitigation of stressors

- Examine the impacts of stressors on honey bees and native pollinators (parasites, pathogens, pesticides, nutrition, genetics, climate)
- Develop markers and associated models to identify honey bee colonies/native pollinator populations impacted by specific stressors
- Evaluate management options to mitigate impacts of stressors
- Identify native bee species to serve as alternative model to honey bees to study molecular, physiological, and behavioral impacts of stressors
- Develop biologically based management of parasites and pathogens

2. Development of native pollinator management practices

- Develop management practices to mitigate native pollinator decline (including reduced pesticide regimes)
- Develop management practices to enhance crop pollination services (including augmentation of local habitat)
- Develop methodology to determine “success” of pollinator conservation efforts

3. Survey populations of native bees in the Northeast

- Develop baseline information about distribution and abundance of native pollinator species
- Identify native pollinator species in decline
- Determine effects of landscape (use, pesticide load, forage diversity, size) on native pollinator biodiversity and abundance

4. Determine economic value of native pollinators

- Evaluate contribution of native pollinator species to pollination of specific crops
- Identify key native pollinators for specific crops

5. Education

- Develop technology-enabled citizen science programs