

Profile from the Field

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Pollinators Take Center Stage at Xerces Society Workshops

Project Titles: “Pollinator Conservation Training

Coordinators: Eric Mader

Location: Portland, OR

SARE Grants: \$72,168

Duration: 2009-2012

To read the full project reports, go to www.sare.org/projects and search for project numbers LNC08-297 and GNC09-116.

Honeybee losses, compounded with rising rental rates for pollination, are a concern for many producers. Not only are growers looking for alternative pollinators to improve crop security, but they also want to learn how to manage on-farm habitats for native bees and other pollinators.

Eric Mader knows that pollinators are essential for sustaining agriculture. Mader is the assistant pollinator program director at the Xerces Society, a nonprofit organization that protects wildlife through the conservation of invertebrates and their habitat, and he has a secondary role as Assistant Professor of Extension at the University of Minnesota’s (U of MN) Bee Lab. This dual role is a direct outgrowth of Mader’s time as a Horticulture graduate student at the U of MN where he had coursework in entomology with Dr. Maria Spivak, a leading expert in pollinators. Since graduating, Mader’s career, first as a crop consultant for the native seed industry, then as a biologist with Xerces, has fostered the relationship among conservation, agriculture, and ecology. He describes his position as, “having one foot in agriculture and one foot in conservation.”

Mader says the ecological service pollinators provide is necessary for the reproduction of more than 85 percent of the world’s flowering plants (Ollerton et al. 2011). This includes more than two-thirds of the world’s crop species, whose fruits and seeds together provide over 30 percent of the foods and beverages that we consume (Klein et al. 2007). Despite the necessity of pollinators, the essential service of pollination is at risk. Mader says habitat loss, alteration, and fragmentation, pesticide

use, and pathogens have all contributed to recent pollinator declines.

To address the need for pollinator habitat, the 2008 Farm Bill contains specific language that makes pollinators a priority of USDA conservation programs. The Xerces Society wanted to support these pollinator conservation priorities, so Xerces and Eric Mader applied for an NCR-SARE Professional Development grant in 2009, and were awarded \$72,168 to present nine pollinator workshop in the North Central region. Farmers and staff from the Natural Resources Conservation Service (NRCS), Soil and Water Conservation Districts, Farm Service Agency (FSA), Extension, state agencies, and farm organizations, learned how on-farm habitats can increase populations of native pollinators.

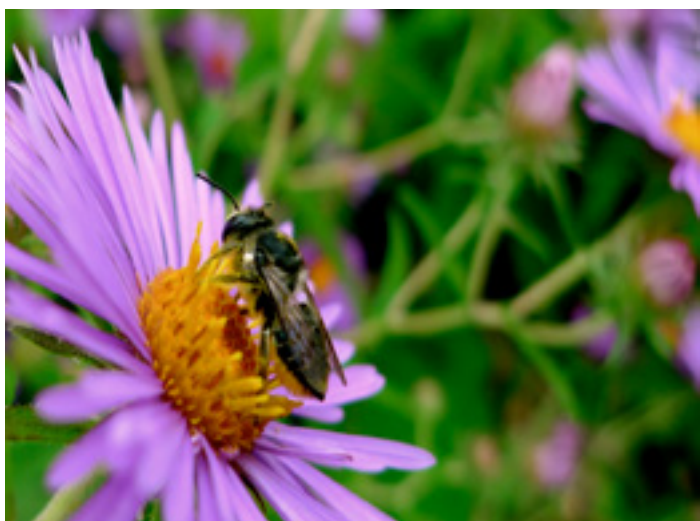
At a SARE supported Pollinator Short Course in Michigan, attendees were able to observe pollinators on rare Eastern prickly pears, native cacti of the eastern tallgrass prairie states. Photo by Eric Mader.



NORTH CENTRAL SARE

Xerces provided a train-the-trainer approach to expanding pollinator conservation efforts, facilitating the installation of additional habitat on the ground, and encouraging enrollment in NRCS and FSA conservation programs.

Farm educators gained a basic knowledge of native bee biology, identification, habitat requirements, pollinator-friendly farming practices, the design and development of habitat enhancements, how to support those efforts through Farm Bill conservation programs, and where to find additional resources.



Another moment captured at the Pollinator Short Course. Photo by Eric Mader.

Anecdotally, I know that people who have taken the course have been excited to discover the diversity of roles that native pollinators play,” said Mader. “One farmer was amazed to discover that native bees could fulfill all of his squash pollination needs. Now he’s working with Iowa State University to support pollinator conservation systems on his farm.”

In the year since participants attended the Pollinator Short Course, 97% of participants reported that they had utilized the information they learned at the training. Follow-up surveys also revealed that the training led to improved conditions for pollinators on

over 11,000 acres of midwestern farmland, and the direct restoration of 4,475 acres of native wildflower habitat. Mader says he still gets a number of follow-up inquiries.

Small gains add up, I would guess that has been the central success of this model,” explained Mader. “We’re giving attendees multiple points of entry and small steps they can take to improve the service of pollination.”

Xerces has ongoing, SARE grant-supported Pollinator Short Courses scheduled throughout the country. By the time these SARE grant projects are complete, Mader says as many as 85 Pollinator Short Courses will have been conducted in 50 states, reaching as many as 4,000 ag professionals. Additionally, he says the Xerces Society wants to offer more pollinator courses in the future, as well as courses, guides, and books about other beneficial insects and farm habitat management for pest control.

For more information on Mader’s NCR-SARE Professional Development grant project, visit the SARE project reporting website. Simply search by the project number, ENC09-111 at www.mysare.sare.org, or contact the NCR-SARE office.

Eric Mader is one of the co-authors of *Managing Alternative Pollinators: A Handbook for Beekeepers*. It’s a first-of-its-kind, step-by-step, full-color guide for rearing and managing cumber bees, mason bees, leafcutter bees, and other bee species that provide pollination alternatives. Read it for free online at www.northcentralsare.org/Pollinators.

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