THE Holiday BUZZ

POLLINATOR PARTNERSHIP

Protect their lives. Preserve ours.

The newsletter for friends and supporters of the *Pollinator Partnership*

Winter 2017

Top: Miner bee observed during FSA training in Iowa

Middle: Volunteer planting at Oak Hill Park in Ohio

Below: Monarch Butterfly on Milkweed in Ohio

A Research Update from *Pollinator Partnership*

Much of *Pollinator Partnership's* mission focuses on promoting good science and the kind of honest, unbiased research that addresses urgent problems facing pollinators of all types. This summary, prepared by our **Director of Research, Dr. Vicki Wojcik**, shares some of the successful projects we've been working on recently. With your support, we're bringing people, industry, government agencies, and universities together to impact the policy debates affecting pollinators across North America and develop solutions that make sense for landowners, land managers, and the pollinators that depend on them.

The availability and quality of feeding and nesting habitat are the leading factors that impact the survival of pollinators globally. If we want to secure the stability of pollination services, our food, and ecosystems, we need to understand how to manage and conserve their critical habitat. Here are several examples of how *Pollinator Partnership* has been approaching these issues and what we've learned over the years. As a direct result of your partnership and support, we have made an impact and we'll continue to work on the cutting edge of pollinator research in the years ahead.

What is the best way to support pollinators in agricultural systems? Agricultural landscapes are the areas where we need pollinators most, but also where they can be most impacted by habitat loss. Seeding a highly diverse mix of native flowers within conservation easements or in buffers within agricultural lands is a commonly used strategy to improve habitat. Federal conservation programs at the US Department of Agriculture (USDA) offer unique opportunities for farmers to create pollinator habitat through the Conservation Reserve Program (CRP), which employs these highly diverse seed mixes.

In 2017 we completed the first technical review of CRP for pollinators. Five years of field research and working with farmers and agency partners in Montana, Nebraska, Iowa, and

Washington allowed for an in-depth analysis of this popular USDA program. **Our research shows that it's not necessarily more plants that make the difference; it's the right mix of plants that matters most.** There are over 40,000 acres of pollinator conservation habitat seeded on farms in the United States, and a total of 23.8 million acres of CRP that we have validated for their benefit. Our research program has helped optimize the use of federal conservation funds and the development of technical guidelines for on-farm conservation.

How do we manage utility corridors to make them better for pollinators? Not all managed landscapes are poor quality habitat for pollinators. In fact, many managed utility corridors have been shown to be good habitat. The continual removal of tall vegetation favors a low-growing meadow, an ideal habitat for pollinators. Utility corridor managers can use many techniques to remove unwanted vegetation, but which are best for also supporting pollinators? ***Pollinator Partnership*** **has been researching utility corridor management in northern California for the past five years, and we now have practical results that are helping guide Best Management Practices.** Integrated Vegetation Management (IVM), which incorporates selected and timed mowing, cutting, and appropriate herbicidal treatments, can provide excellent pollinator habitat. Areas using these IVM practices showed three times the pollinator abundance than those treated with just one method. There are over 200,000 miles of right-of-way in the United States and *Pollinator Partnership's* research and on-the-ground actions have demonstrated a better way forward for North American utilities when it comes to managing their lands.

Can managed timberlands be habitats for bees? Commercial forests, like working farmland, produce a "crop" that is harvested for various uses. We asked whether these commercial forest lands could provide additional benefits to pollinators, and other wildlife, when certain management practices are adopted. To ensure that timber grows optimally, commercial operations use a broad herbicide to exclude the growth of other species, reducing competition with the timber crop. What would happen if herbicide use was reduced? **Can high quality timber be cultivated while also creating a more hospitable ecosystem for pollinators?** ***Pollinator Partnership*** **research indicates that the answer is yes!** In our three-year study of alternative timber management, we recorded higher pollinator diversity, more effective pollination of key wildlife plants, and a higher occurrence of wildlife in these managed lands. There are 423 million acres of managed forest in the United States, and our research shows that these forest lands can play a significant role in supporting pollinators and other wildlife.

Does using locally native plants in restoration make a difference to pollinators? When landscapes are remediated or restored, priority is given to preventing soil erosion and maintaining hydrology. In this practice, grasses are often the first choice as they are quick to establish and easily accessible. When working on a large restoration at the Santa Susana Field Lab in southern California, Pollinator Partnership had the unique opportunity to experiment with restoration seed mixes that included native plant species. Four years of monitoring allowed us to verify that seeding with native plants attracted more pollinators than traditionally used seed mixes. This benefit extended to plant species growing near restored areas – these plants had higher reproduction because of increased pollinator visitation. When restorations are underway, **our research shows that including native plants provides incredible pollinator benefits.**

These examples of *Pollinator Partnership* "research in action" demonstrate the value of managed habitats to pollinators as a key strategy in their conservation. With your support, Pollinator Partnership will continue both our research and field work to promote and protect pollinators all across the North American landscape.

Above left: P2's Field Biologist, Amber Barnes, monitoring at a Monarch Wings Across Ohio Plot

Right: Monarch butterfly larvae

Below right: Pollinator planting at noosa yoghurt headquarters in Colorado

NAPPC SEVENTEEN 2017

Celebrating 17 Years of Collaboration for North America's Pollinators

This year, we celebrated the 17th annual **North American Pollinator Protection Campaign (NAPPC) Conference**, hosted at the American Farm Bureau Federation in Washington, D.C. It was a real success as it highlighted both the past accomplishments of NAPPC and new leadership at *Pollinator Partnership*. Every year, the collaborative efforts of many people from all over North America work tirelessly to bring stakeholders together to speak freely and work in conjunction to promote the health of all pollinators.

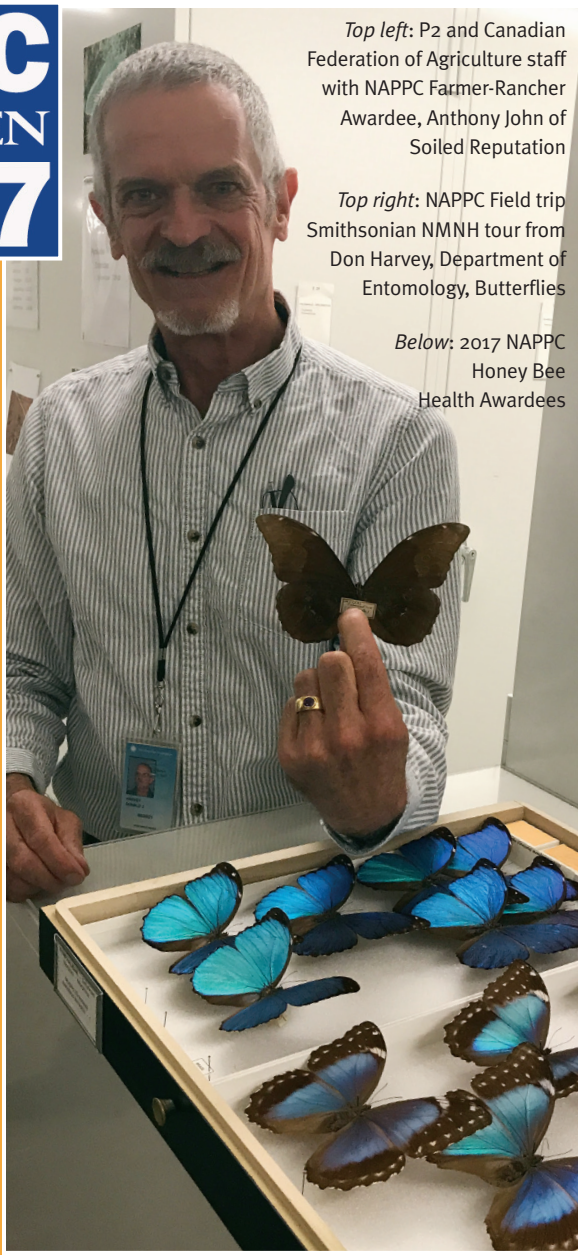
This year's conference included diverse, **world class presentations** from experts at the forefront of pollinator issues. Topics ranged from the Endangered Species Act and the listing of *Bombus affinis*, the importance of state apiarists, improvements in Canadian agriculture, pesticide issues, and the Million Pollinator Garden Challenge.

NAPPC convened 9 task forces which established year-long objectives on a specific pollinator issue. Working in conjunction with state departments of transportation, one task force is working to implement roadside habitat incentives including educational outreach and recognition of best practices, while another task force focuses on engaging broad stakeholders to promote the monarch butterfly. Other task forces focused on Bee Friendly Farming, Selecting Plants for Pollinators, greater Pesticide Education, and Rooftop Gardens and Urban Youth. In conjunction with the NAPPC Honey Bee Health task force, young academics gave updates on their honey bee health research projects taking place throughout North America.

NAPPC also presented **5 awards to pollinator advocates and farmer ranchers** who have worked for years to promote pollinators. These awardees understand just how important pollinators are to food, culture, and life and they've all worked hard to promote the birds, bees, butterflies, moths, and bats that support agriculture and ecosystems everywhere.

- 14 year old **Nikolas Liepins**, founder and COO of Bee Kind MN, gives age focused presentations to youth in local schools and scouting groups on pollinator issues.
- **Dr. Cameron Cartiere** and Nancy Holmes at Border Free Bees provide a model for how communities can come together to create and preserve pollinator habitat and understand the scope of pollination systems in British Columbia.
- **Eduardo Rendon Salinas** engages in important research on Monarch butterflies that systematically monitors monarch overwintering forests in Mexico.
- **Brendon Rockey** of Rockey Farms has become a leader in using a biotic approach to farming that promotes pollinator health on his Colorado potato farm.
- **Antony John** of Soiled Reputation has been supplying south-western Ontario for 20+ years with over 50 varieties of gourmet organic vegetables using practices that promote pollinator and wildlife dive rsity on his farm.

NAPPC serves as an example of collaboration and partnership that, for 17 years, has made real progress for pollinators. *Pollinator Partnership* looks forward to continuing this progress and continuing to be the "honest broker" that helps to bring new innovations and ideas to the table.



Top left: P2 and Canadian Federation of Agriculture staff with NAPPC Farmer-Rancher Awardee, Anthony John of Soiled Reputation

Top right: NAPPC Field trip Smithsonian NMNH tour from Don Harvey, Department of Entomology, Butterflies

Below: 2017 NAPPC Honey Bee Health Awardees

Pollinator Partnership Leads Effort to Help Caribbean Beekeepers

On September 20, **Hurricane Maria** struck Puerto Rico causing catastrophic damage and triggering a major humanitarian crisis. It **crippled island infrastructure**, including access to electricity, water, and other basic necessities. Agriculture was decimated, too. Cropland, family farms, and food systems were largely destroyed, and nearly $780 million in crop losses have been recorded so far in Puerto Rico.

Puerto Rico's beekeepers, along with those on the US Virgin Islands and other Caribbean islands, **were also hit hard**. Beekeepers in the Caribbean are essential to local agriculture and provide important pollination services to specialty crop farmers and others. In Puerto Rico, fewer than 150 beekeepers provide just a small amount of the honey consumed on the island, but these men and women maintained several thousand hives which are essential to island pollination services. From pineapples to coffee to countless fruits and vegetables, honey bees and other pollinators are key to the recovery of Puerto Rican and Caribbean agriculture.

But the hurricane stripped the islands of their floral resources, effectively denying that critical nutritional resource to these "natural farmers."

***Pollinator Partnership* is leading a campaign** made up of private citizens, beekeepers from throughout the United States, industry groups, companies, land-grant universities, and many others **to provide emergency assistance to the beekeepers of the Caribbean**. The first stage of this relief was to provide essential nutrition to bees in the form of pollen patties and powdered protein. In the continental U.S., beekeepers have access to commercially produced protein sources, but these sources were unavailable in Puerto Rico and the Caribbean. This food source has now arrived!

The storms also destroyed many of the Langstroth wooden hives used by beekeepers to house their bees. Bees that survived the destruction of their hives have swarmed, taking up residence in people's homes, schools, and other structures. Stage two is providing new hive boxes to beekeepers throughout the affected Caribbean islands.

Assistance from the *Pollinator Partnership Caribbean Bee Rescue* campaign has already made it to the region and these efforts will continue into 2018. In addition, we will continue to help strengthen beekeeping and pollination services in Puerto Rico and the US Virgin Islands; we will continue to assess the impacts of Hurricanes Maria and Irma on honey bees and other pollinating species to determine how help can best be provided going forward.

When disaster struck the Caribbean's beekeepers, *Pollinator Partnership* answered the call. Your support of our efforts gave us the opportunity to offer a hand to the pollinators of Puerto Rico and the US Virgin Islands.

https://www.gofundme.com/fund-for-puerto-rico039s-pollinators

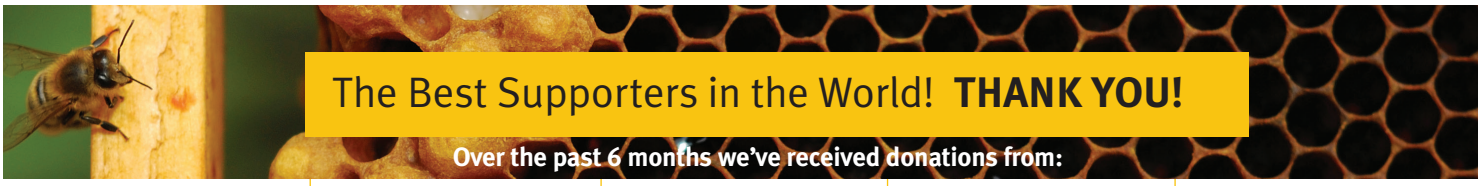
From top to bottom: Longhorn bee

Langstroth hive delivery in Puerto Rico

Bee protein delivery in St. Croix, USVI

Pollen patty preparations to be sent to the Caribbean

Degraded Puerto Rico landscape post-Maria



The Best Supporters in the World! **THANK YOU!**

Over the past 6 months we've received donations from:

Charles and Ruth Adams
Laurie and Chick Adams
Aldrich Family Charitable Foundation
Almond Board of California
Elizabeth Alseth
American Beekeeping Federation
American Honey Producers Association
Amore Cucina & Bar
Adam Argento
Tony Arpaia
David Ash
Azon Seller Tools
Breanna Baeza
Bryan Baird
Bee Smart Designs
Peter Beesley
Elizabeth Beeson
Jim Belles
Robert W. Bennett
Eric Bennett
Daniel Bennett
Jim and Josie Bennington
Bentley Holden Fund
Jordan D. Berlin
Big Dipper Wax Works
Bijen-Hommel Consultancy
Lisa Binner
Garry Binner
Kerstin Block
Blue Diamond Growers
BNY Mellon Corporation's Community Partnership
Ann Boehm
Boeing Company
The Bower Studio
Sheila Bressler
Broadmoor Garden Club
Marney S Bruce
Lillian Brummet
Candy Brunell-Duff
Sheila Bryant-Dosser
Roy and Katherine Bukstein
Bumble Trading Inc.
Jason D. Burke
Matthew Campen
Jerry Carle
Jennifer Cheang
Polly Cheney
Jennifer Claxton

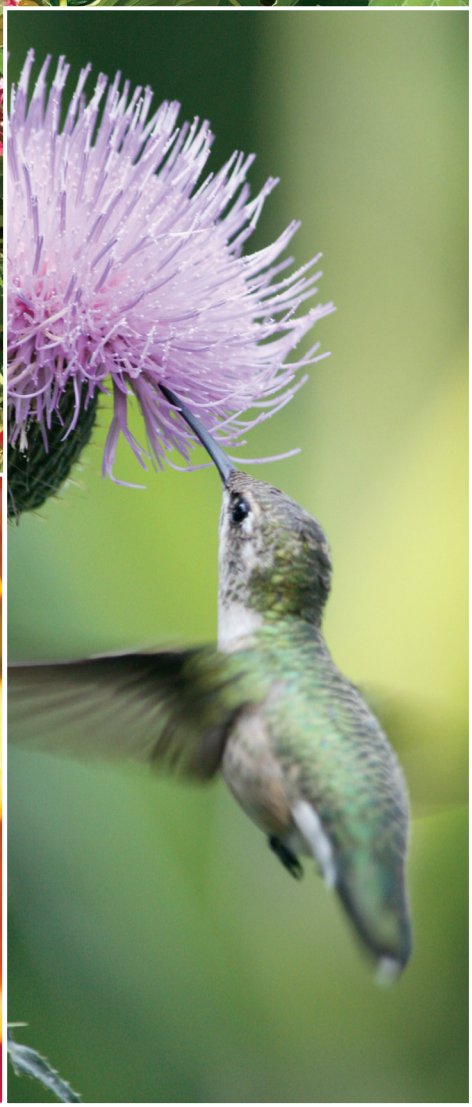
Priscilla Cobb
Andrew Coblentz
Adam Coday
Eileen Connolly
Donald and Margaret Cook
Lee Cornell
Darren Cox
Kelly Creger
Laurie Curtis
C.M. Cussary
Anne Dalton
Jamey DeOrio
Heather Divoky
Debbie Dodson
Val Dolcini and Solveig Monson
Melanie Douty
Terri Dowell
Victoria Dyson
Marilyn Eagleton
Erika Earl
Eart Art International
Sue & Frank Coccia
Earthwise Innovations
Zachary Edd
Silvia Edelstein
Pamela Eflin
Paul & Anne Ehrlich
Anne Ferguson-Rohrer
Fifth Crow Farm
Daniel Fitts
Kim Flanzer
John and Jill Flynn
Fairmont Hotels and Resorts
Francis Ford Coppola Prescents
The David E and Mary C Gallo Foundation
Jessica Gao
Danielle Geden
Kimberly Gibson
John Gilliland
Glassybaby White Light Fund
Gloomyhome
Martin and Marilyn Goldstein and Frank
Joth Goodman
Peter & Lennie Gotcher
Kelly Gough
Harrison Grauso
The Great Northern Burlington

James and Marritje Greene
April Grudgen
Emerly Gueron
Adrienne Kent Gunst
Amy Hager
Kathleen Haiker
The Halsey Family Foundation
Harbor Sweets
Max Hase
Aparna Hashmi
Iman Hawkins
Catherine Heater
Timothy Heeter
Laurie Hejduk
Lauren Herron
Peggy and Jim Hoburg
Honey Bee Health Coalition
Kyle Humbard
Jacksonville Zoological Society
Kristen Jacoby
Roger Jardin
Leslie Jenison
Kristen E. Jennings
Victoria Kahian
Kane Web Group
Robert Kearns
Robert Lee Kilpatrick, Ph.D.
Konrad Kmetz
Diana Kottke
Shaun Lacey
South R. Lavender
Andrea Learned
Bridget Lee
Billy Li
Alexander Lindsey
Little Turtle AAZK
Thomas Livingston
Loeb Family Foundation, Inc.
Edith J. Maffeo
Michele Manousos
Patty Manpearl
Eduardo Marchena
Shirley A. Martin
Rosanna Mason
Gregory Mathews
Maxwell PR, LLC
Karen McMenimen
Allison Medina

Benjamin Merrill
Nicole Metildi
Caryn Miller
Janet Miller
Modern Sprout
Mark Moffett, Ph.D.
Nancy Mola
Jean Morrell
Elise Morvant
Anna Mowry
Melinda Mucha
Jodi Munson
Thomas Murphy
Chris Niewiarowski
Virginia Nisse
Tammy Owens
Mark Pappas
Thalia Pappas
Kailey Partida
Jeri Paul
Zachary Pavilaitis
Ian Payne
Gladys Phillips-Evans, Ph.D.
Tom Power
Debra Price
Sherry Proctor-Oonk
Project Apis m.
Courtney Prose
Sarah Proske
Laurel Przybylski
Philip Rawlings
Kathleen Renowden
Matthew Ripley
Dee Rivers-Yowell
Bryan Robinson
Greg Roos
Martin and Joan Rosen
Lisa Rosenthal
Brian Rothbart
Terence Rourke
Susan Russell
Doug and Lillian Ryan
C A Rytting
Salamanca Girl LLC
Marcia Saldana
Dedra Salitrik
Lonn Sattler
Marnell E Scheeper
Westly Schmidt
Jessica Secratt

Select Seeds Company
Ashley Sherwood
James and Sita Sherman
Steve Shestag
Melissa Sisk
Victor Skloff
Melinda Smith
Gerry Snowden
South River Lavender
Louis Steele
Michael Stephen Flaherty
Cynthia Stevens
Arthur Stromberg
Jayne Sullycole
Amy Super
Swan's Water Gardens
Leilani Sweeney
Jason Sweeney
Sweet Virginia Foundation
Gail Taylor
Darwin Thomas
Roberta Tofield
J. Topolski
Bianca Torres
Frances Troll
Eileen Tsai
Donald Tuff
Guillaume Turpin
Robert Tyler
Vivian Rosemary Tynes
U.S. Apple Association
Mary Unger
Valmont Cosmetics N.A.
Aaron Van Arsdale
Barbara Van Lear
Wesley Varner
Lucy R Waletsky
Ann Wallis
Patti and Tim Warner
Vita Wells
Susan Wickham
Ray & Nancy Widrew
Barbara Willenborg
Terry and Diana Witzel
David Wodecki
Wonderful Orchards LLC
Christine Zahner

Your support is making a real difference. **THANK YOU!**



We're busy as bees producing **The Buzz.**

President and CEO
Val Dolcini

COO
James E. Sherman

Editors
Kelly Rourke, Vicki Wojcik, Ph.D.

Public Affairs Director
Tom Van Arsdall

Graphic Design
Marguerite Meyer

The Buzz is published by the **Pollinator Partnership** and mailed to all of our donors and interested friends of pollinators.This issue is also available at our website: **www.pollinator.org**.