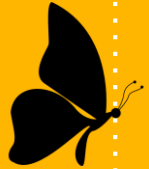


The Buzz on Pollinators and What You Can Do

Kelly Rourke, Amber Barnes
Pollinator Partnership
info@pollinator.org

Suppliers Partnership for the Environment
June 11, 2019

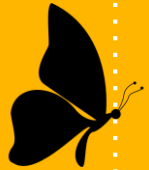
POLLINATOR
PARTNERSHIP



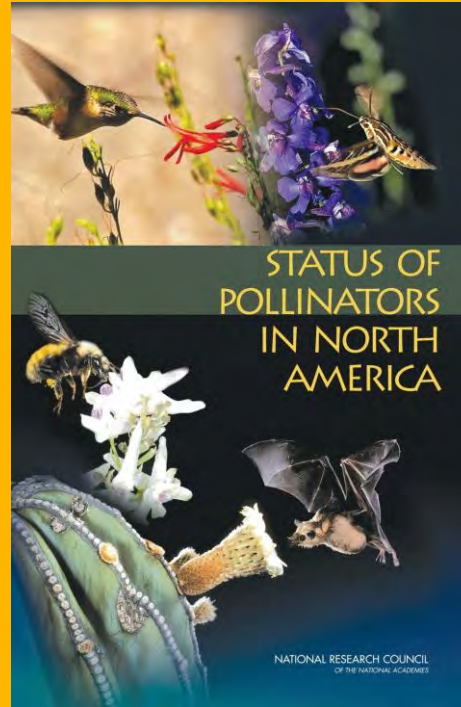
Agenda for our Suppliers Partnership Presentation

1. What is the Status of Pollinators?
2. Ways that Pollinator Partnership approaches the problem
3. Case Study 1: Monarch Wings Across the Eastern Broadleaf Forest
4. Case Study 2: Project Wingspan
5. Signature Initiative: Pollinator Week
6. Other programs that can help the
Suppliers Partnership

**POLLINATOR
PARTNERSHIP**



What is the Status of Pollinators?



Bumble Bees are in decline

One quarter of all bumble bee species in North America are in a **threatened** or near threatened category.

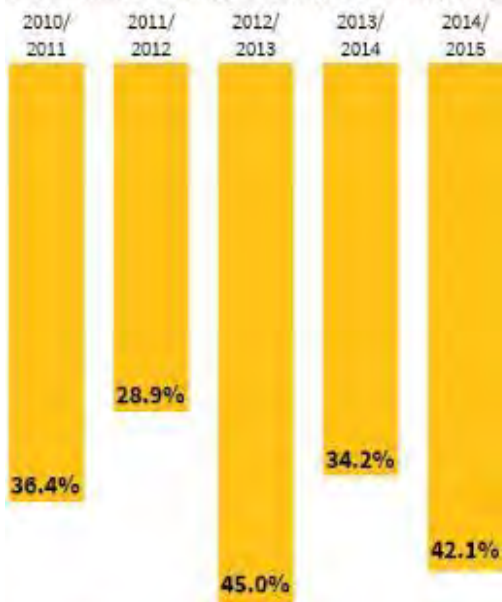


Endangered Rusty Patched Bumble Bee

Managed honey bee colony losses increase

While winter losses were lower, summer losses – exceeding those of winter for the first time – resulted in an increased annual loss of 42.1 percent from April 2014 to April 2015.

Total annual managed honey bee colony losses



2014/2015 annual managed honey bee colony losses by state



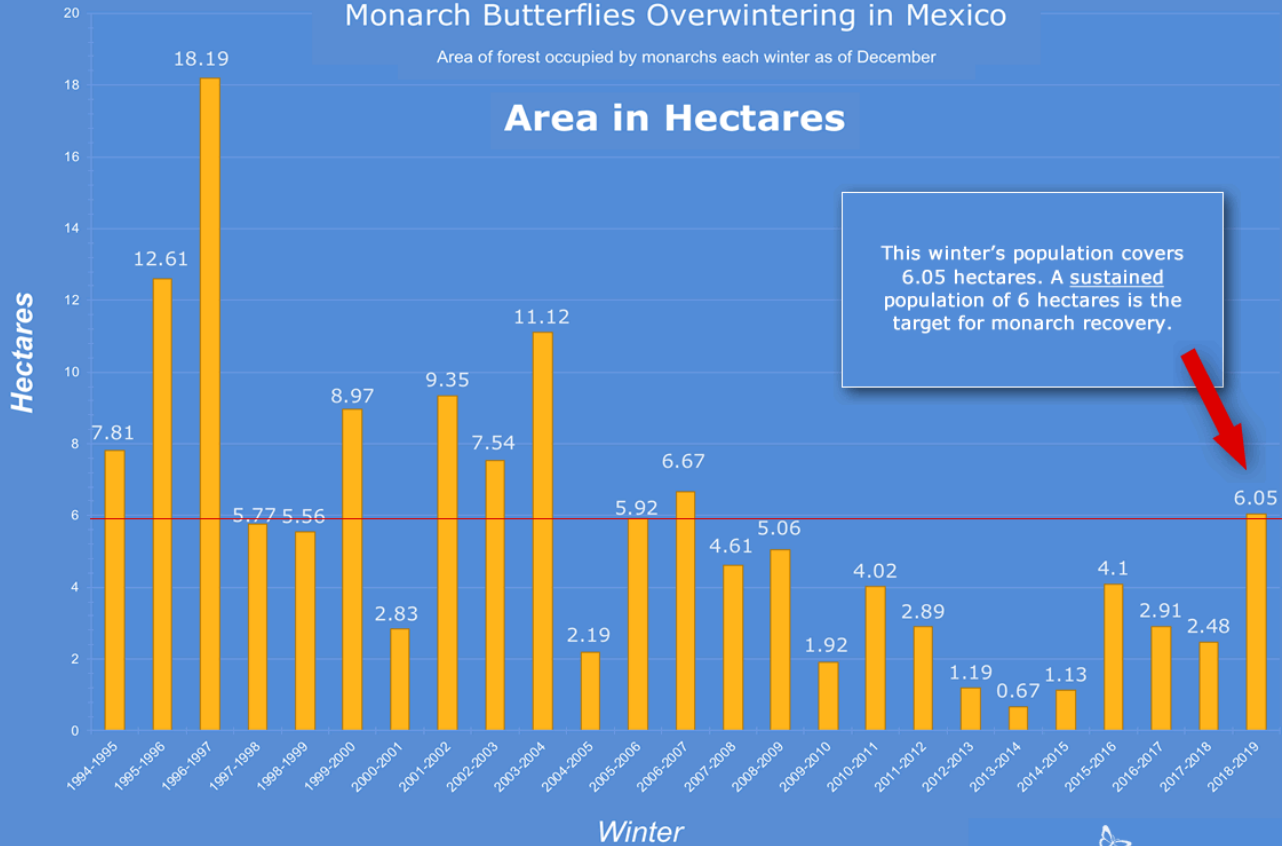
Source: USDA

S. Culp, 13/06/2015

Monarch Butterflies Overwintering in Mexico

Area of forest occupied by monarchs each winter as of December

Area in Hectares

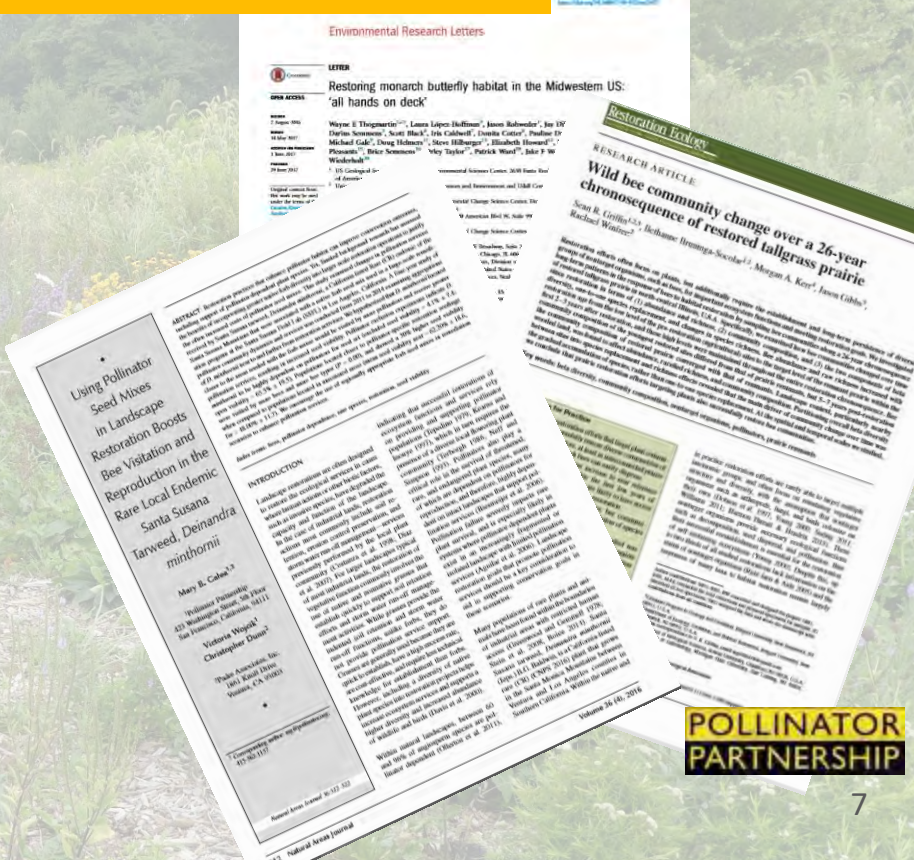


This winter's population covers 6.05 hectares. A sustained population of 6 hectares is the target for monarch recovery.

Graphic by Journey North. Data courtesy of WWF-Mexico and the Reserva Biosfera de la Mariposa Monarca (RBMM).

'All Hands on Deck!' approach needed

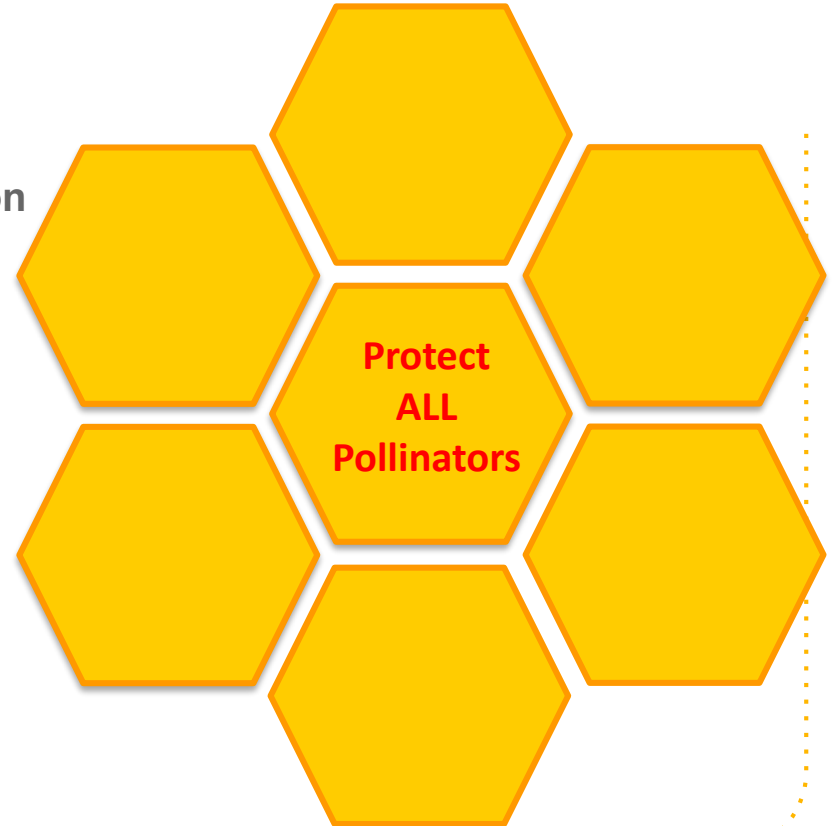
- Large or small, we need it all!
Habitat islands and corridors are vital.
- Pollinators don't care about borders!
- Increased floral diversity = increased biodiversity



POLLINATOR PARTNERSHIP

The Source for Pollinator Action and Information

**Ways P2
approaches
the problem**



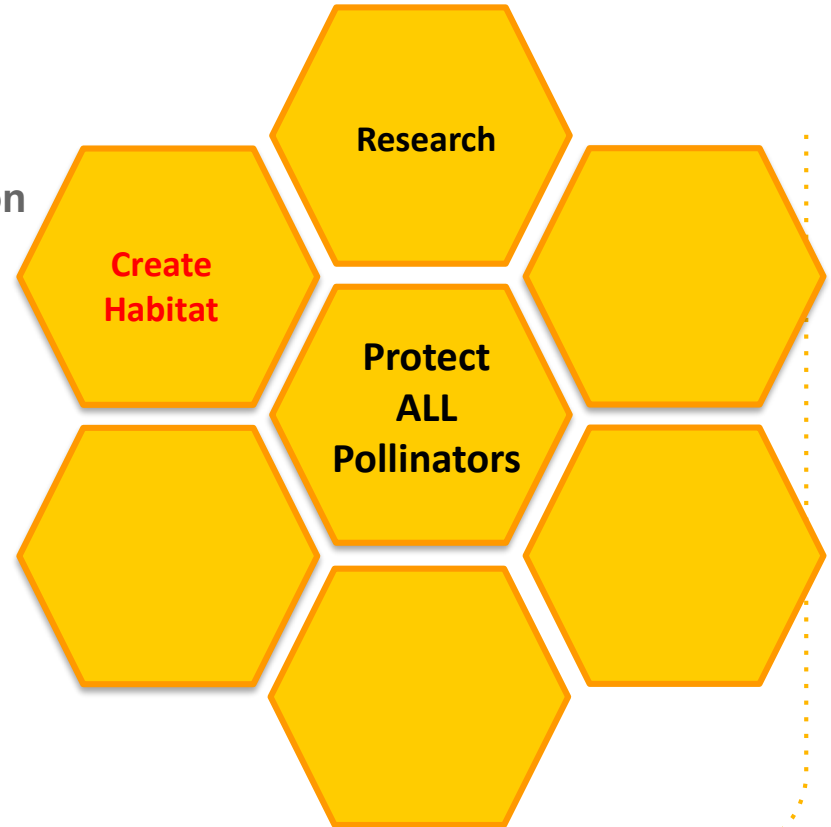
POLLINATOR PARTNERSHIP

The Source for Pollinator Action and Information



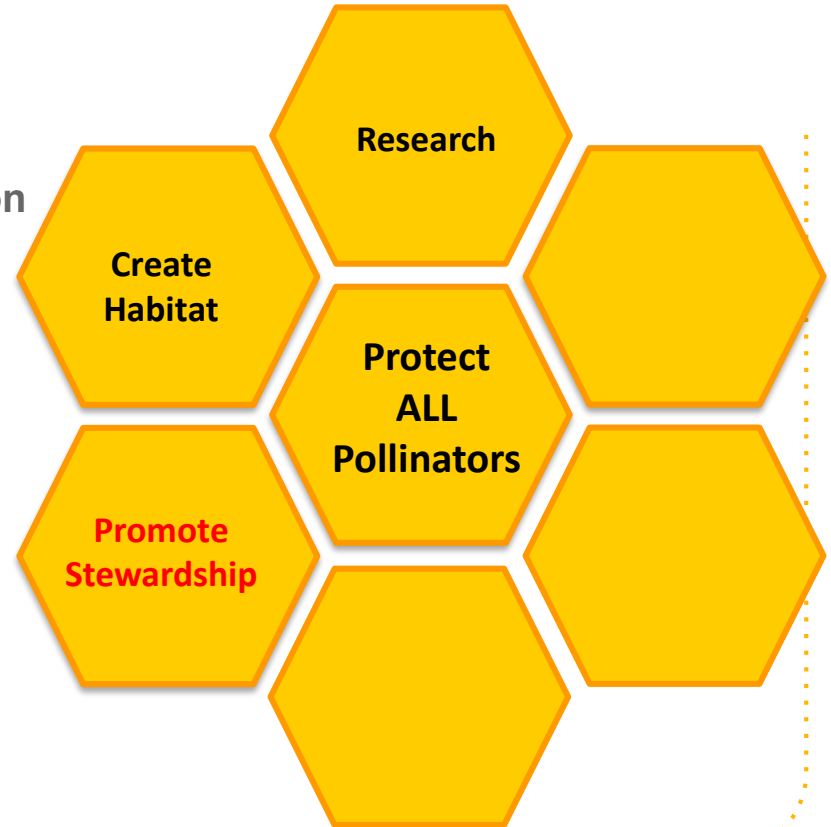
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The Source for Pollinator Action and Information



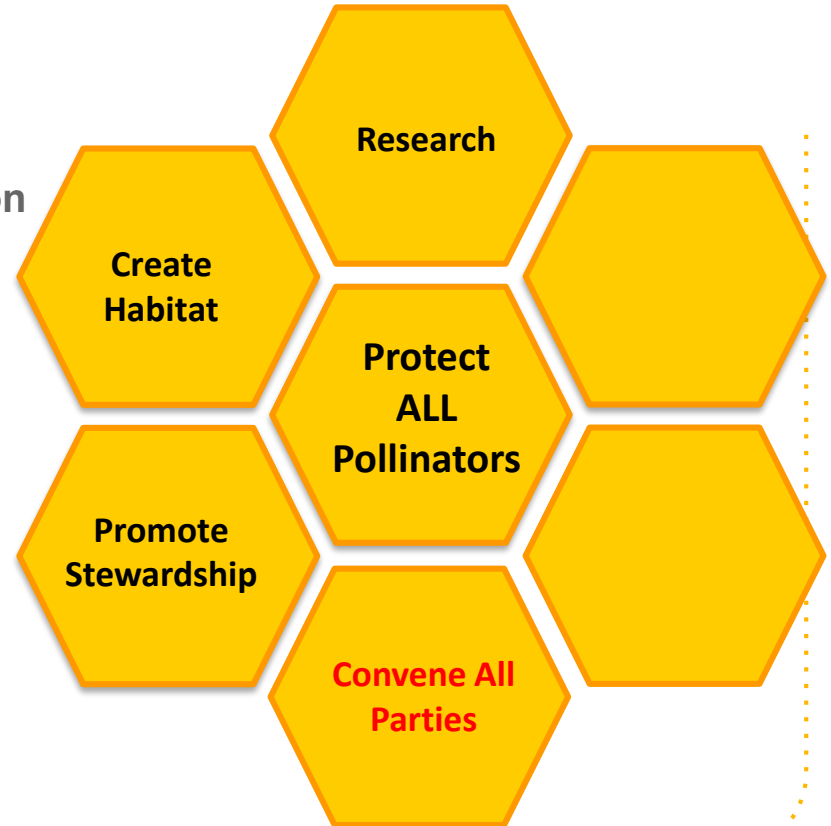
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The Source for Pollinator Action and Information



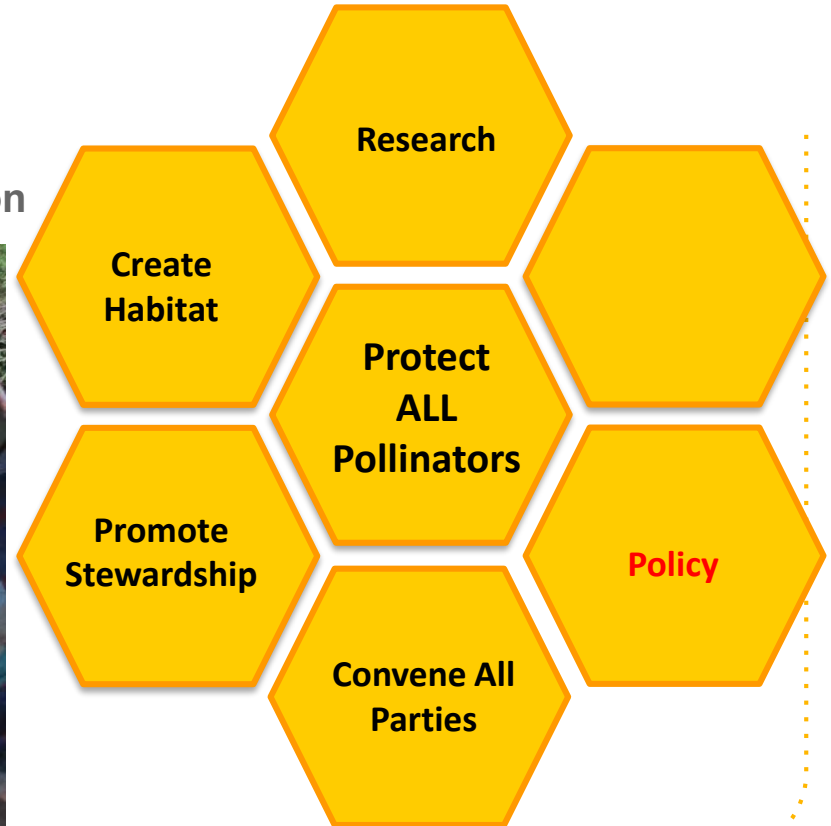
POLLINATOR PARTNERSHIP

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POLLINATOR PARTNERSHIP

The Source for Pollinator Action and Information



Pollinator Partnership can help you with:

- Online resources
- Habitat design and installation
- Guidelines and manuals
- Sustainability reports
- Employee and customer programs
- Planting and seeding consultations

Case Study 1

Monarch Wings Across the Eastern Broadleaf Forest 2016



An ecoregional approach to increases in available seed and plant materials to support monarch habitat

2016-2019



Built on success of 2015 Monarch Wings Across Ohio



Photos: Amber Barnes



**POLLINATOR
PARTNERSHIP**

Goals:

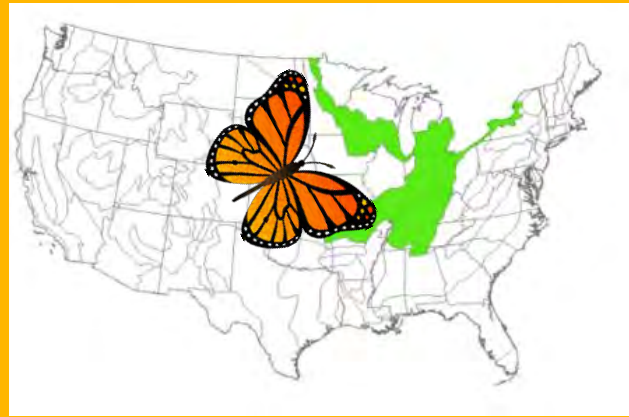
Increase monarch habitat throughout the Eastern Broadleaf Forest-Continental Province

- With multiple partners establish an ecoregional seed collecting and plant materials development program in MO, AR, IL, IN and OH
- Provide technical assistance and training to volunteers and public and private land managers
- Long-term monarch habitat establishment





What did MWAEBF accomplish?



Volunteer Training and Seed Collection Program

- **368** seed collections
- **100 lbs.** of clean seed
- **11,482** seedlings propagated
- Seed and plugs generated from volunteer seed collector's efforts had an estimated value of **\$59,530**



Photo Heath Hamilton

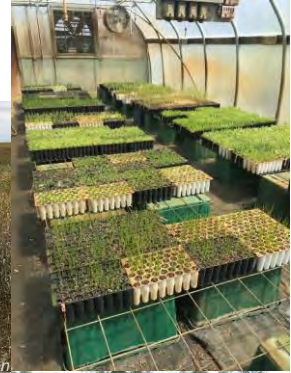


Photo Heath Hamilton

**POLLINATOR
PARTNERSHIP**

Monarch Habitat Enhancement and Management

- Secured **27,731** acres of monarch habitat through Long-term Management Agreements
- Exceeding our goal by **23,043** acres!
- And it lead to . . .



Habitat Wanted
Pollinator Partnership is calling for all landowners and managers with at least one acre of land in IL, IN, OH, MO, or AR who are committed to monarch conservation and long-term monarch habitat management to be a part of Monarch Wings Across The Eastern Broadleaf Forest!



Apply online for the chance to participate, and if you win a bid, you will get a \$1000 grant to help you get started. For more information, visit the link to apply today: <http://pollinator.org/news/submit>

Application Deadline: May 31, 2019



Monarch Wings Across The Eastern Broadleaf Forest
Application Form

1. Name of Landowner/Manager: _____
2. Address: _____
3. City/State/Zip: _____
4. Phone: _____
5. Email: _____
6. Acreage of Land: _____
7. Type of Land: _____
8. Current Use: _____
9. Description of Land: _____
10. Description of Habitat: _____
11. Description of Management Plan: _____
12. Description of Conservation Goals: _____
13. Description of Other Conservation Efforts: _____
14. Description of Other Conservation Organizations: _____
15. Description of Other Conservation Programs: _____
16. Description of Other Conservation Activities: _____
17. Description of Other Conservation Resources: _____
18. Description of Other Conservation Partners: _____
19. Description of Other Conservation Stakeholders: _____
20. Description of Other Conservation Interests: _____

**POLLINATOR
PARTNERSHIP**

Case Study 2

Project Wingspan 2018



A regional approach to:

- developing rapid increases in available seed and plant materials
- supporting the monarch, rusty patched bumble bee, and other imperiled pollinators
- increasing and establishing habitat



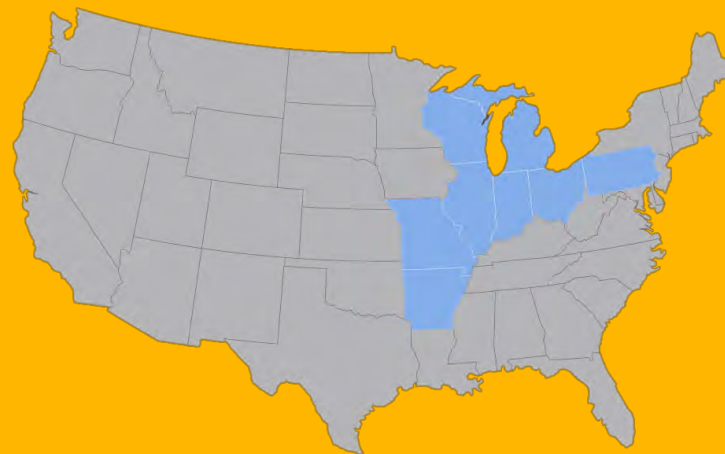
Built on MWAEBF - and added WI, MI, and PA Landscape Enhancement for Imperiled Pollinators of the Midwest



Photo Amber Barnes



Photo Kim Mitchell, USFWS



Developed the Tools for Volunteers





Developed Plant Profiles



MWAEBF - PLANT PROFILE

Pycnanthemum tenuifolium
(Narrowleaf Mountainmint)

Other common names include: Slender mountain mint and Common rosemary

Bloom Period:

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
					X	X	X	X			

Plant Characteristics:

Duration: Perennial
 Type: Forb
 Size: 2-3' tall
 Leaf: Opposite, up to 3" long and 1/4" across. Leaves have no petiole (leaf stem), are linear, and hairless, with a prominent central vein and smooth edges. Leaves smell heavy when crushed.
 Stem: Still, smooth, slender, square stem, with no hairs.
 Flower: The short tubular flowers are white, often with scattered purple dots, and individually about 1/4" long. The flower petals have an upper lip, and three-lobed lower lip.
 Seed collection™: Late September-Late October [7]




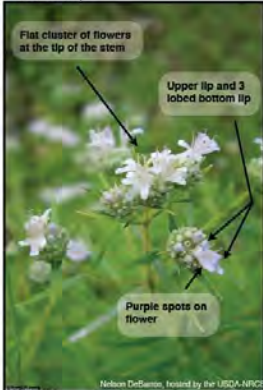

What it can be confused with:

This plant has a delicate, somewhat airy appearance. *P. tenuifolium* closely resembles *Pycnanthemum virginianum* (Common mountainmint), except that the *P. tenuifolium* has hairless stems and leaves that rarely exceed 1/4" across. *P. virginianum*, on the other hand, has lines of white hairs on its stems, and some of the larger leaves will exceed 1/2" across. *P. virginianum* tends to be taller, stouter, and less branched in appearance; it also blooms a little later in the year. [3]

Known Pollinators:
 Honey bees, native bees, flies, wasps, butterflies, skippers, and beetles. [1]

™ Seed collection done with very dry soil in broken and open meadows during the growing season. This is a general time seed may fall easily. Insects will need to be lured to get a very accurate sample for each location.
 [1] USDA-NRCS PLANTS Database. (2016). *Pycnanthemum tenuifolium*. Retrieved from https://www.nrcs.usda.gov/plants
 [2] USDA-NRCS PLANTS Database. (2016). *Pycnanthemum tenuifolium*. Retrieved from https://www.nrcs.usda.gov/plants
 [3] USDA-NRCS PLANTS Database. (2016). *Pycnanthemum tenuifolium*. Retrieved from https://www.nrcs.usda.gov/plants

Pycnanthemum tenuifolium
(Narrowleaf Mountainmint)

Opposite leaves

Prairie Moon Nursery

Produced Seed Collecting Manual

Project Wingspan:
Landscape Enhancement for Imperiled
Pollinators of the Midwest



Seed Collection Manual

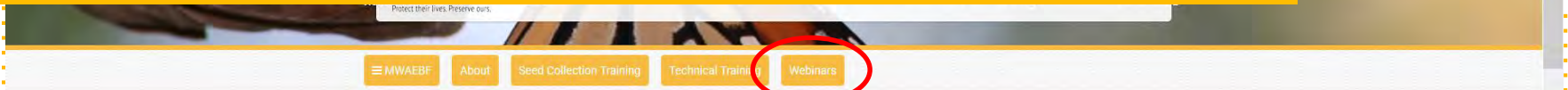


Special Thanks to:
Additional Core Partners: Michigan State University, Michigan DNR, and Pennsylvania DOT

Satellite Partners: Tyson Foods, Inc., Chicago Botanic Garden, Patoka River NWR, Big Oaks Muskratuck NWR Complex, Ottawa National Wildlife Refuge, Energy Resources Center of University of Illinois at Chicago, Southwest Michigan Land Conservancy, Pleasant Hill Acres, Ohio Prairie Nursery, Ernst Conservation Seeds, Applied Ecological Services, and Ohio State University

CornEd Support for Project Wingspan has been provided in part by Commonwealth Edison as part of their commitment to environmental stewardship and conservation.

Disseminating Webinars



Protect their lives. Preserve ours.

MWAEBF About Seed Collection Training Technical Training **Webinars**

Habitat Restoration and Management Webinar Series


MONARCH BIOLOGY AND ECOLOGY (30 MIN)

Ed Spevak, Ph.D.: Curator of Invertebrates, Saint Louis Zoo, and Director, Center for Native Pollinator Conservation

In this presentation Dr. Spevak discusses the interdependent relationship between monarchs and their native habitat and explores key considerations for monarch conservation.

MWAEBF Webinar Series: Monarch Biology & Ecology

Monarch butterfly
(*Danaus plexippus*)




Watch later Share

Pollinator images of Brad Cook, Ed Spevak, Sarah, and Brent Phelan

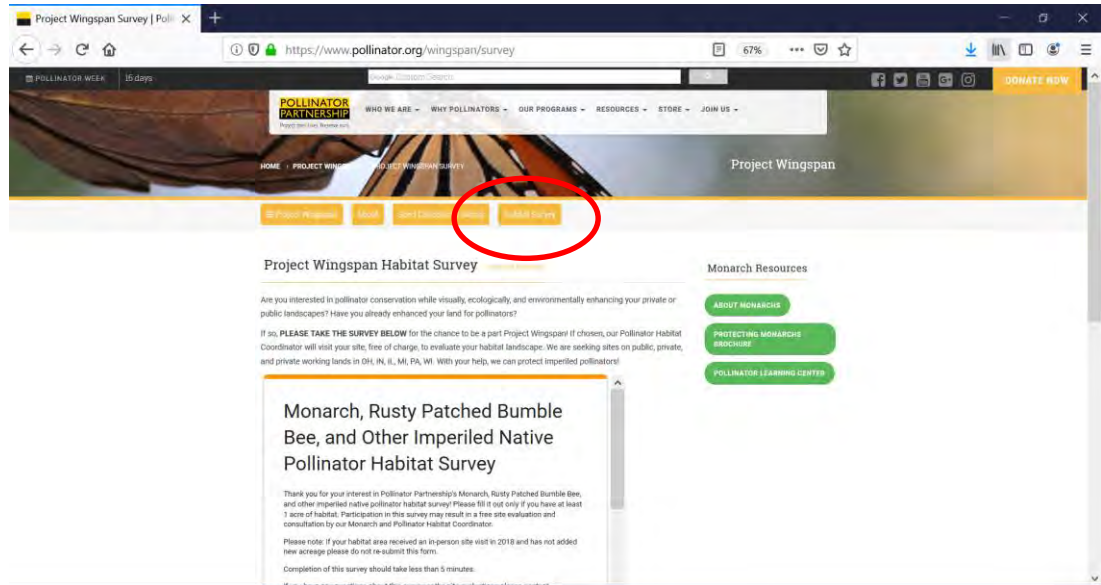
Monarch Resources

- ABOUT MONARCHS
- PROTECTING MONARCHS BROCHURE
- POLLINATOR LEARNING CENTER



Initiated Habitat Survey

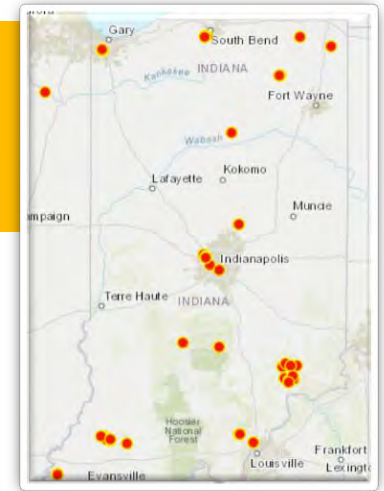
- There is still time to get your habitat acreage counted!
- Easy to complete
- Potential for FREE on-site consultation visit or plant material



Developed Mapping App

University of Arkansas Center for Advanced Spatial Technologies

- Smartphone app for volunteers to map collections and store data
- Valuable data for model validation
- Real-time collection tracking



1. Expand and grow our regional seed collecting program



2. Provide technical assistance and training for seed collection and planting



3. Long-term habitat enhancement



Habitat Wanted

Pollinator Partnership invites public land managers and private landowners with at least one acre of land in WI, MI, PA, OH, IN, IL, MO, and AR who are committed to long-term conservation of monarch, rusty patched bumble bee, and other rare pollinator habitat to be a part of

Project Wingspan!



To participate complete the preliminary online survey, and if your site qualifies, you will get a FREE on-site review by Pollinator Partnership's Monarch & Pollinator Habitat Coordinator who will be able to offer habitat development guidance. Plant material awards will be given to selected sites for habitat enhancement.

Are you committed to enhancing your land for monarch butterflies, rusty patched bumble bees and other imperiled pollinators?

Visit this link today
<https://pollinator.org/wingspan/survey>

Deadline: **June 15, 2019**

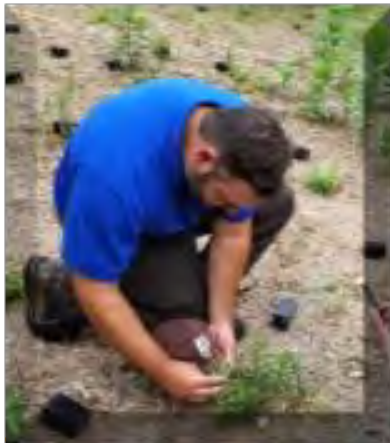
For questions please e-mail Elizabeth Kaufman at ek@pollinator.org

Pollinator Partnership
423 Washington Street 5th FL San Francisco CA 94111 • 415-362-1137 • www.pollinator.org



Project Wingspan's goal is to make 1,000 seed collections of native milkweeds and other target forage species over two years.

**Volunteers from Suppliers Partnership
in IL, IN, MI, OH, PA, and WI
can be a valuable part of this!**



Ways you can get involved!

- ❑ Become a trained seed collection volunteer
- ❑ Lead a collection team
- ❑ Provide a seed collection site
- ❑ Provide support and connections to our State Coordinators
- ❑ Enhance your land for monarchs and the rusty patched bumble bee
- ❑ Submit your pollinator projects 1+ acres in size into our survey
- ❑ Share information about our project and volunteer needs with your networks
- ❑ Provide sponsorship for the project

Together we can make rapid increase of
much-needed habitat for our imperiled
pollinators



**POLLINATOR
PARTNERSHIP**

Lead to Monarch Wings Across California

Just getting started

- 3 long-term monarch butterfly habitat and research plots
- Over 50 individuals in planting demonstrations and activities
- 1,567 native nectar and milkweed plant species planted



Programs that can help you in the Suppliers Partnership

In addition to **Project Wingspan** in Illinois, Indiana, Michigan, Ohio, Pennsylvania, Wisconsin, and **Monarch Wings Across California** in California. . .

Signature Initiatives

Pollinator Week

June 17-23, 2019

www.pollinator.org



pollinator WEEK

**POLLINATOR
PARTNERSHIP**



Annual Events

Engage your colleagues, customers, families, and community members to show your commitment to sustainability during Pollinator Week!



Organizations/ Participants

- Corporations
- Federal and State Agencies
- City Governments
- Wineries and Farms
- Museums and Zoos
- Schools and Universities
- NGOs
- Individuals

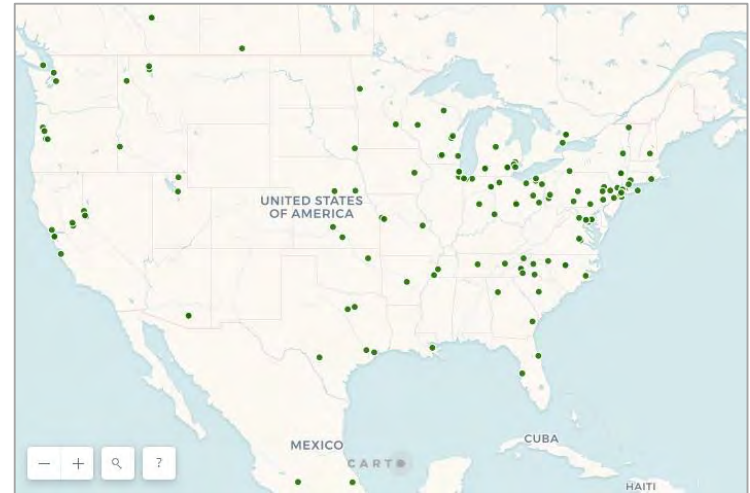


**POLLINATOR
PARTNERSHIP**



Proclamations and Events

- For the past 4 years ALL 50 Governors have signed agreements Proclaiming Pollinator Week
- Over 200 events across the country.
- To find or register events:
 - Visit www.pollinator.org



Celebrate Pollinator Week

June 17-23, 2019



Activity ideas

- Begin your own or join a social media campaign
- Highlight Pollinator Week in your newsletter
- Sponsor Pollinator Week
- Host a pollinator-themed meal
- Employee pollinator planting day
- Build native bee houses with families and community members



**POLLINATOR
PARTNERSHIP**

We Can Help YOU Accomplish Your Sustainability Goals

- **BeeSmart School Garden Kit**
- **Ecoregional Plant Guides**
- **Insight Citizen Science App**
- **Mite-A-Thon**
- **NAPPC**
- **Pollinator Stewardship Certification**
- **Protecting Pollinators – Pesticide Application Training Module**



BeeSmart School Garden Kit



Expose students to new ideas about food, wildlife, and plants

- Increase students' understanding in science, math, and language arts.
- Identify a committed school and purchase a School Garden Kit for them!



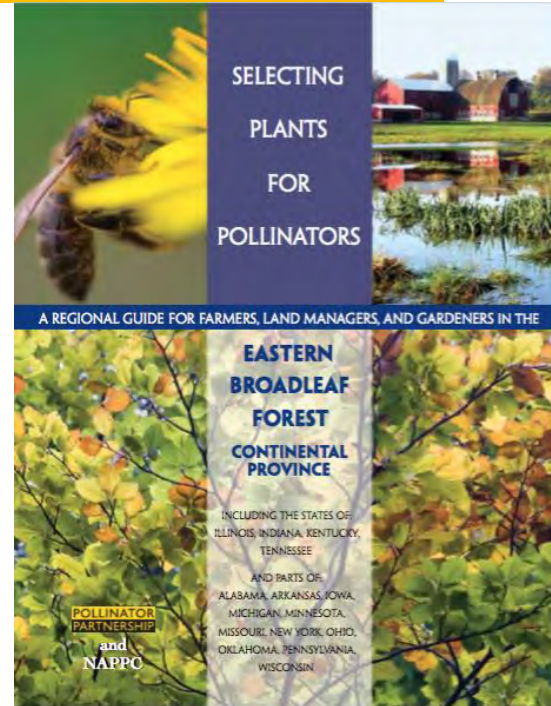
Ecoregional Plant Guides

Free online resource for regionally appropriate plant lists

- 59 guides covering ecoregions throughout USA and Canada

Learn:

- Keys to developing great pollinator habitat
- Recommendations for locally-native pollinator plants that you can incorporate into your habitat



Ecoregional Plant Guides

Free online resource for regionally appropriate plant lists

- Enter your zip or postal code to get the guide for your area
- Click to download!

POLLINATOR PARTNERSHIP WHO WE ARE - WHY POLLINATORS - OUR PROGRAMS - RESOURCES - STORE

Selecting Plants for Pollinators

Our ecoregional planting guides, *Selecting Plants for Pollinators*, are tailored to specific areas of the United States. You can find out which ecoregion you live in and get your free guide by entering your zip code below. For Canadian Guides [click here](#).

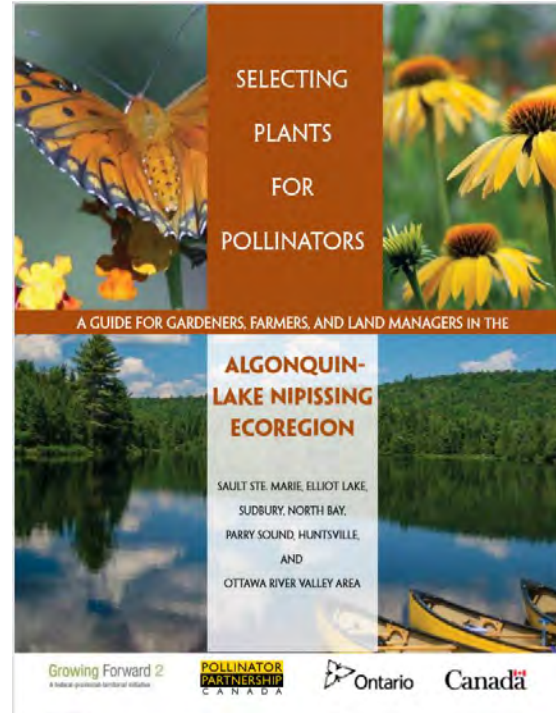
Enter Your United States Zip Code Here: Search

Enter the first 3 digits of your Canadian postal code: Search

For help finding the right guide for you, please call 415-262-1137 or email info@pollinator.org

Starting on Page 16 of the planting guides you can find lists of plant names that will attract pollinators and help you build beautiful pollinator habitat! Print these lists and bring them to your local native plant, garden center or nursery.

[Click on a Guide to Download!](#)



Insight Citizen Science App



Contribute meaningful scientific data by observing pollinators

- Join as your organization for biodiversity metrics
- Great for basic monitoring of YOUR pollinator projects
- Feeds into large-scale citizen science

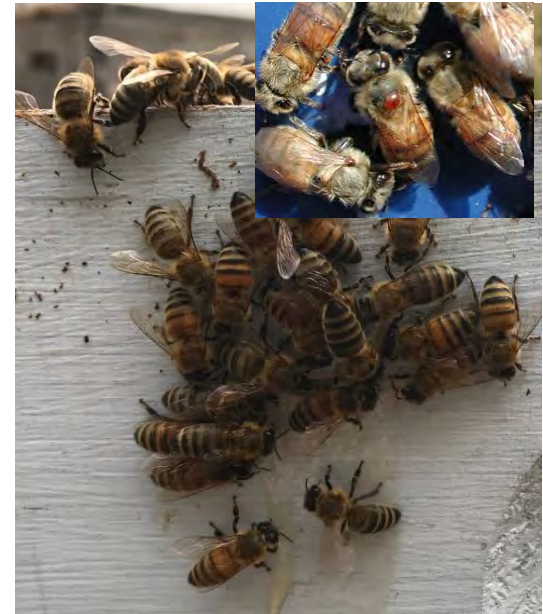


**POLLINATOR
PARTNERSHIP**

Sponsor or Participate in the Mite-A-Thon

Collect mite infestation data and to visualize *Varroa* infestations in your honey bee hives

- Test either individually or through beekeeping organizations.
- Report your data at www.mitecheck.com
- September 7-14, 2019



**POLLINATOR
PARTNERSHIP**



**Canadian
Honey
Council**



American Beekeeping
Federation



**American Honey
Producers Association**



**MICHIGAN STATE
UNIVERSITY**



**UNIVERSITY OF
MARYLAND**

Project Apis m.



HONEY BEE
HEALTH
COALITION

USDA

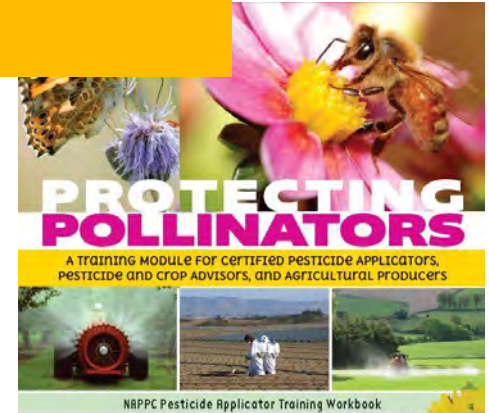
**POLLINATOR
PARTNERSHIP**

Protecting Pollinators - Pesticide Application Training Module



Increase your skill in minimizing the effects of pesticide applications on pollinators

- The importance and current status of pollinators
- How professional applicators can help protect pollinators
- How to select and apply pesticides
- The importance of labels and label language



**POLLINATOR
PARTNERSHIP**

North American Pollinator Protection Campaign (NAPPC)



Join and attend/sponsor and support

- Logo representation on the annual poster (200,000 distributed annually!) and event materials
- Direct contact to over 170 NAPPC partners for relationship building at annual International Conference in DC
- Showcase your sustainability efforts through partnerships



**POLLINATOR
PARTNERSHIP**

Pollinator Stewardship Certification



Land Managers get certified as a pollinator steward

- **science-based understanding** of pollinators
- **practical know-how** to help them
- knowledge to **create habitat and educate others**
- **an important credential**



**POLLINATOR
PARTNERSHIP**

We Can Help YOU Accomplish Your Sustainability Goals

INDIVIDUAL CONSULTATIONS

- **Habitat Development**
- **Community Engagement**
- **Employee Participation**
- **Strategic Sustainability**



**POLLINATOR
PARTNERSHIP**

Talk to us about YOUR
questions and ideas!



Let's work together for a more sustainable world

www.pollinator.org

- KR@pollinator.org
- AB@pollinator.org
- **415.362.1137**

