



# Monarch Butterfly Conservation Updates

Laurel Hill- Biologist, Ecological Services

Sergio Pierluzzi— Chief, Partners for Fish and Wildlife

Midwest Region, USFWS

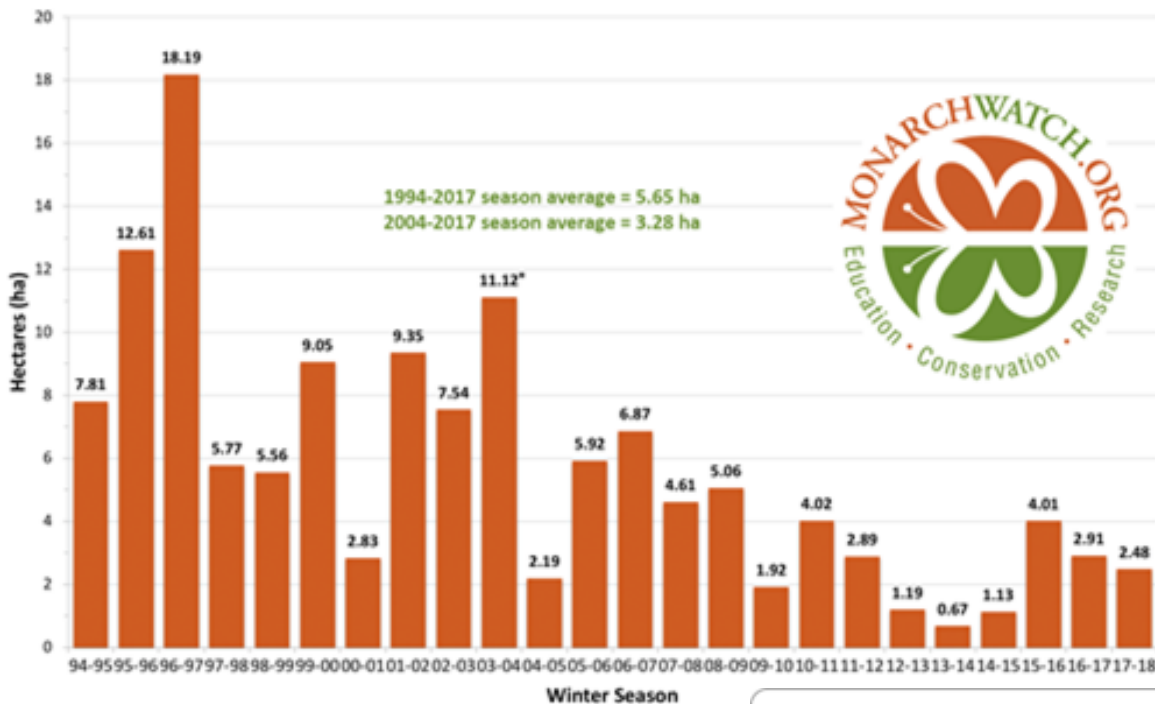
[fws.gov/savethemonarch](https://fws.gov/savethemonarch)

# Objectives

- ESA timeline for monarch butterfly
- Updates on other pollinator species
- Partnerships and engagement



Total Area Occupied by Monarch Colonies at Overwintering Sites in Mexico



Data for 1994-2003 collected by personnel of the Monarch Butterfly Biosphere Reserve (MBBR) of the Areas (CONANP) in Mexico. Data for 2004-2017 collected by World Wildlife Fund Mexico in coordination with the MBBR.

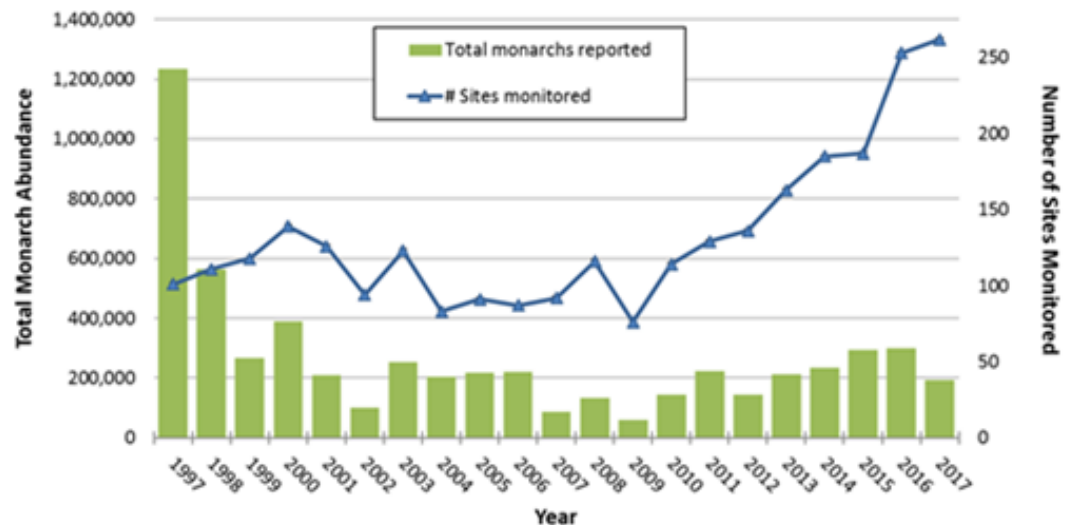
\* Represents colony sizes measured in November of 2003 before the colonies consolidated. Measures obtained in January 2004.

# Monarch Population Declines since 1990s

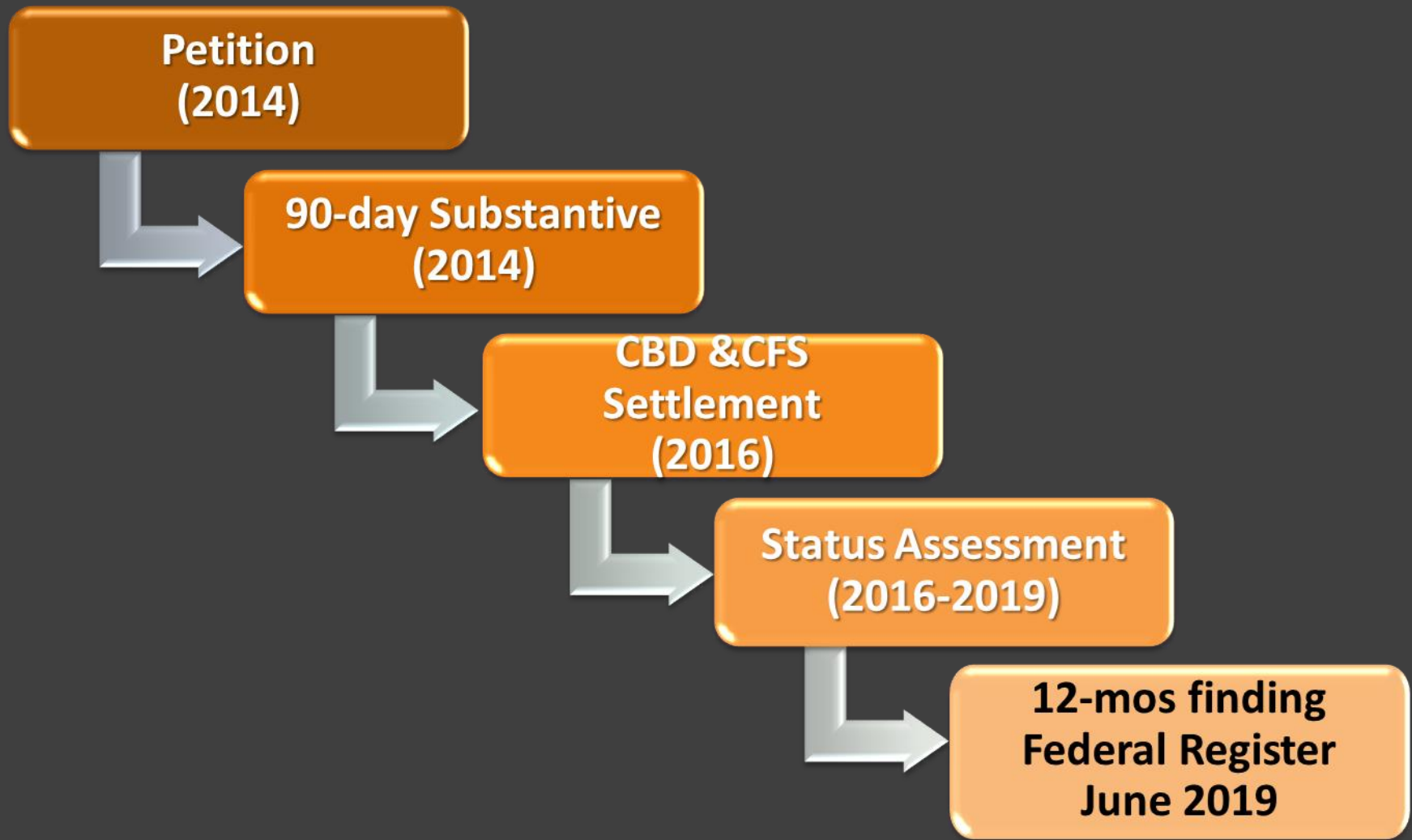
The Xerces Society Western Monarch Thanksgiving Count

Total Abundance Estimates w/ Number of Sites Monitored from 1997-2017

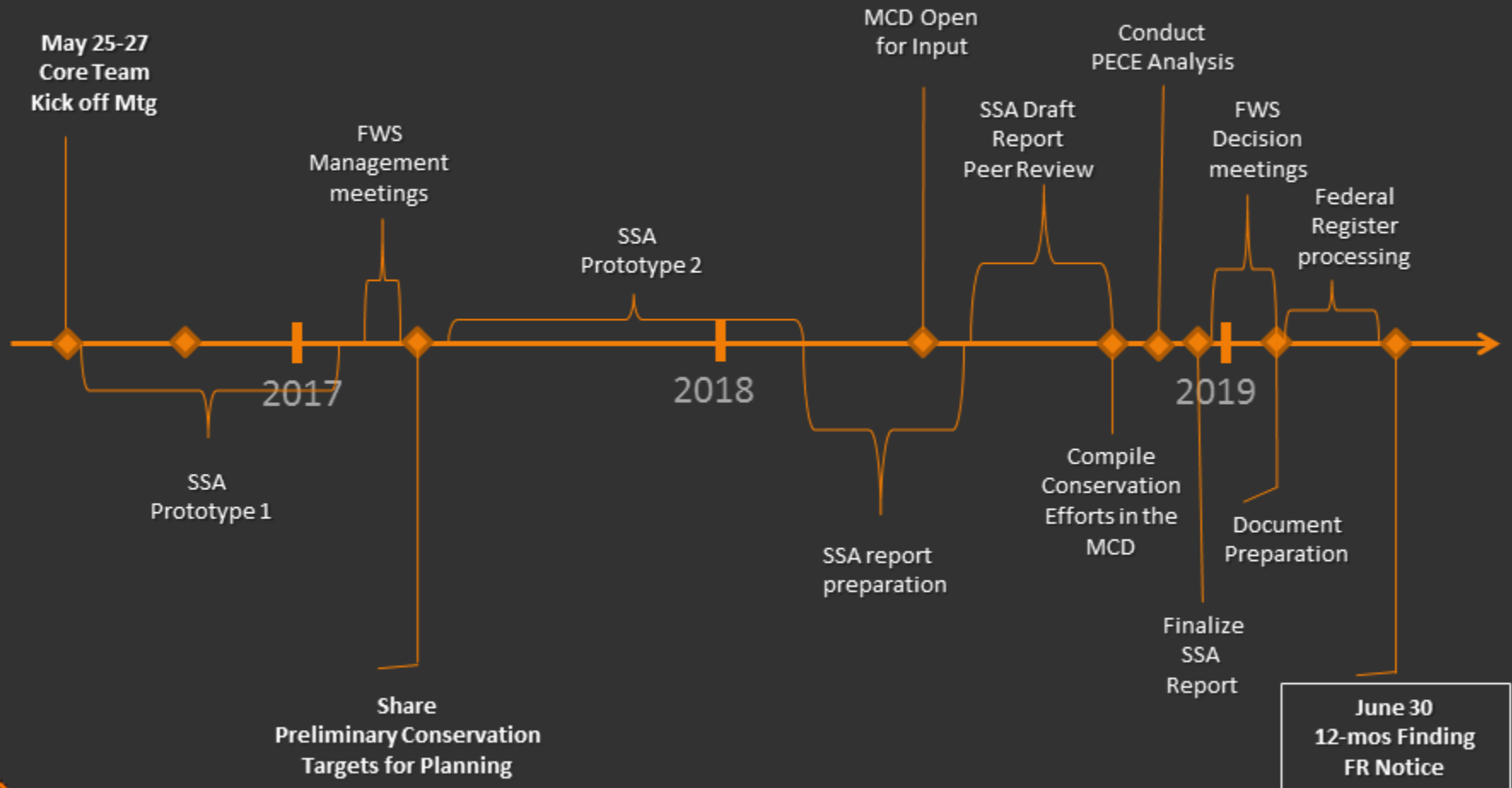
© The Xerces Society for Invertebrate Conservation 2018



# Endangered Species Act for Monarch



# Monarch SSA/Listing Decision Timeline



# Monarch Conservation Database

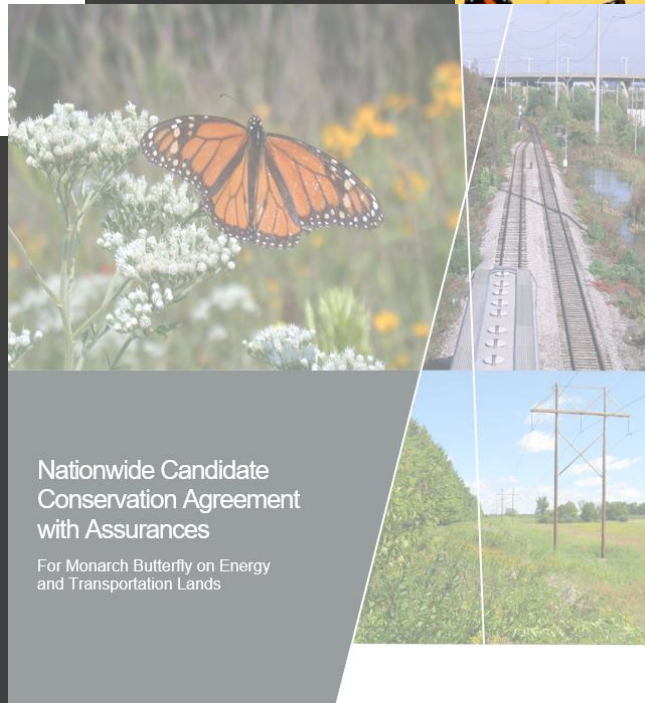
- Purpose
  - Capture monarch conservation plans
  - Capture conservation efforts
  - Inform decision whether or not to list
    - Inform Species Status Assessment (SSA) models
    - What are the gains or “uplift” due to conservation efforts?
    - To what extent are the threats influencing the decline of monarch being addressed by conservation efforts?





# MID-AMERICA MONARCH CONSERVATION STRATEGY

2018-2038



## Nationwide Candidate Conservation Agreement with Assurances

For Monarch Butterfly on Energy  
and Transportation Lands

USDA United States  
Department of  
Agriculture

NATURAL RESOURCES CONSERVATION SERVICE



## WORKING LANDS FOR **MONARCH** BUTTERFLIES

*Good for Butterflies, Good for Your Bottom Line*





# MONARCH CANDIDATE CONSERVATION AGREEMENT WITH ASSURANCES (CCAA)





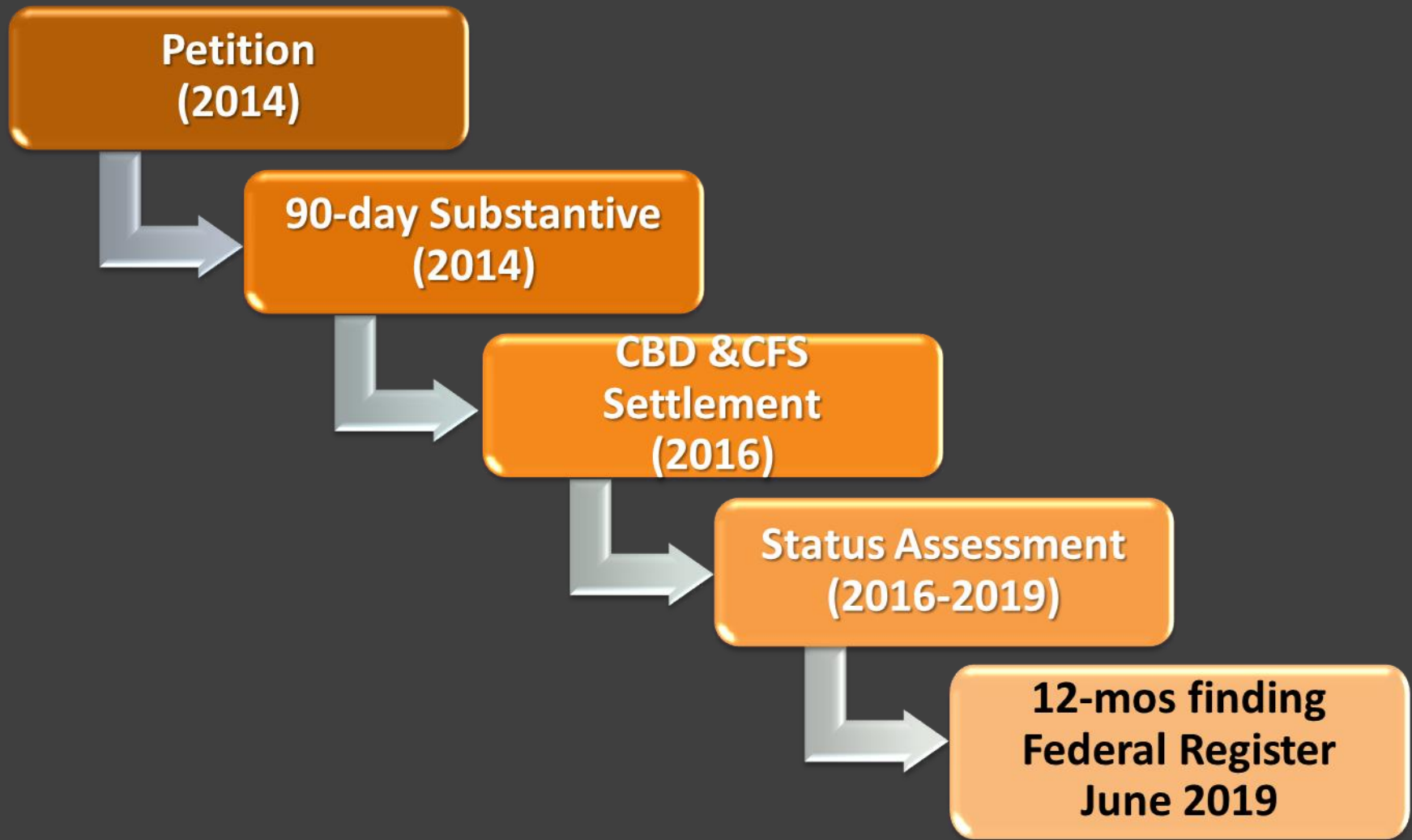
# MONARCH CONSERVATION EFFORTS DATABASE

*AS OF OCTOBER 18TH*

- Conservation Efforts: 888
- Conservation Plans: 37
  - State Conservation Plans: 8
- Organizations providing data: 82
- Acres: 680,418
- Most Common Activity: Planting



# Endangered Species Act for Monarch











# Frosted Elfin

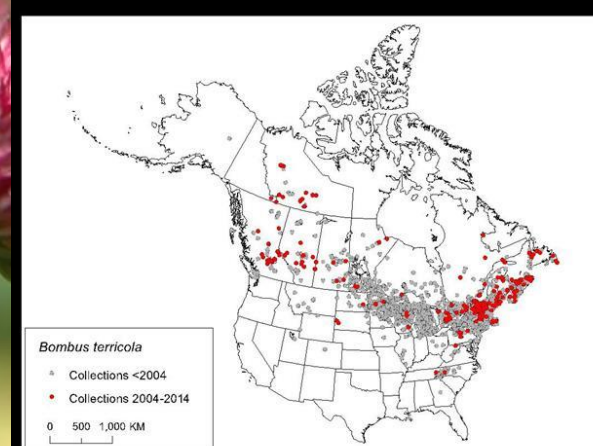




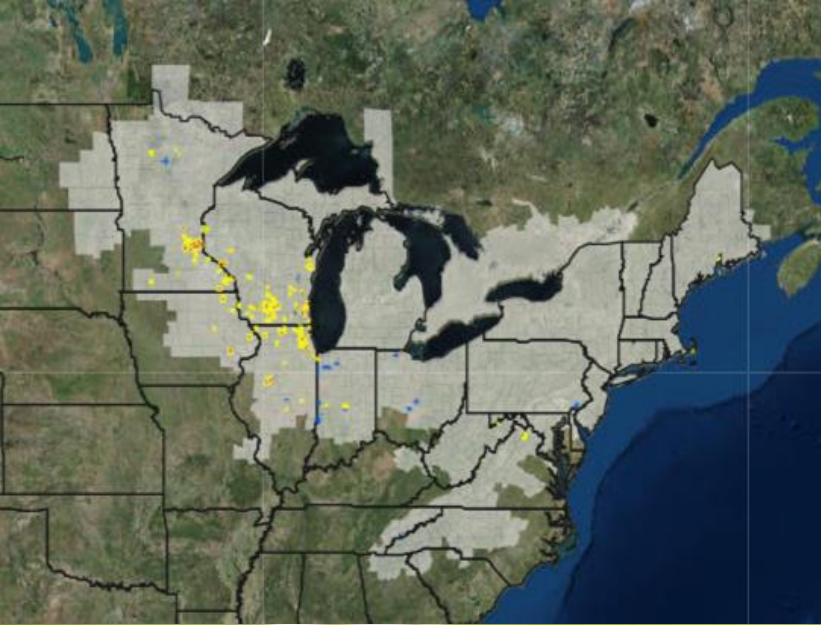
# Yellow Banded Bumblebee



courtesy of Sandy Gillians/Creative Commons







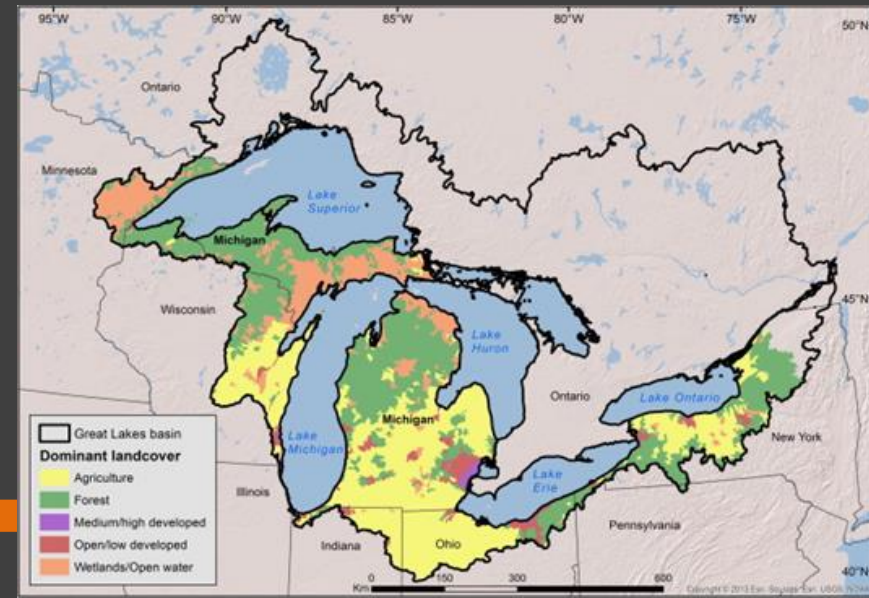
**Rusty patched  
bumble bee**

# GLRI Pollinator Work



# GLRI Pollinator Work

- Coordinator in place
- Species? Focal areas?
- Examining pesticide effects in agricultural landscape
- Surveying populations
- Multi-agency effort (states, USFS, NPS)





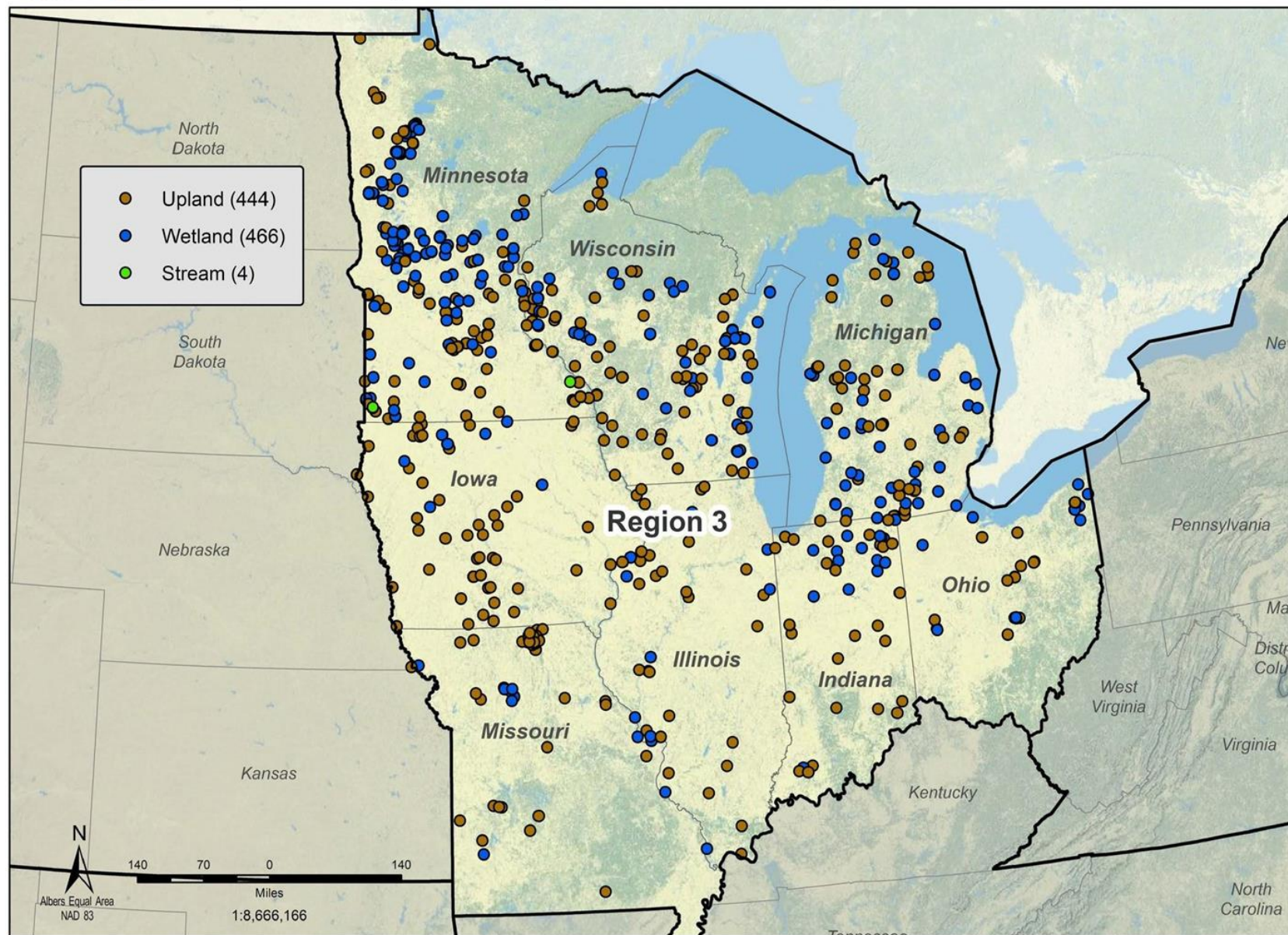
# Partners For Fish and Wildlife







FY2018 Completed Accomplishments - Midwest Region





# Missourians for Monarchs

- Catalyst for partnerships between MDC, MODOT, and MPF for invasive plant treatment along highways
- Coordinates partners' efforts for data into the MCD
- Partnered with Ag Community to fund a 3-year pilot position to work with ag groups on pollinator conservation and precision agriculture



Photo courtesy of Jon Houghton/USFWS

Best management practices for pollinators help to support healthy farms and ranches. We offer financial and technical assistance to help you employ these practices to conserve monarchs and other pollinators through our Partners for Fish and Wildlife Program, [www.fws.gov/midwest/partners](http://www.fws.gov/midwest/partners). We are leaders in promoting voluntary stewardship for fish and wildlife conservation. We recognize the importance of meeting the needs of landowners and the fish and wildlife that depend on their lands.

Conservation practices that benefit monarchs and other pollinators can also provide higher quality forage for livestock and make agricultural operations more resilient and productive. A diverse stand of native plants can increase resistance to pests, control the spread of invasive plants, regenerate soil, and reduce erosion.

To help this iconic insect we want to partner with corporations, non-profit organizations, state agencies, tribes, academia, and YOU! It's going to take all of us - from national organizations to individuals - to ensure a future filled with monarchs.

The decline of monarchs is driven by habitat loss and degradation. Our goal from this collaborative network is for monarch populations to rebound and flourish across the landscape.

#### Site Eligibility:

- Land privately owned by an individual(s)
- In key locations to support monarchs and native pollinators
- One acre or greater
- No cropping history required

#### Cost-Share Rate:

- Flexible to keep out-of-pocket expenses low
- Project funding for materials and/or installation of practices

#### Commitment:

- Landowner agreement to maintain habitat for 10 years

#### Landowner Use:

- Follow an agreed management plan prepared by a biologist
- Technical assistance is available throughout the life of the agreement
- Land can be used for hunt/lease, bird watching, quiet enjoyment and landowner controls access



For more information, visit [www.fws.gov/midwest/partners](http://www.fws.gov/midwest/partners)

#### Feeding Pollinators: Working Together to Ensure A Future Filled with Monarchs

U.S. Fish and Wildlife Service  
Partners for Fish and Wildlife Program

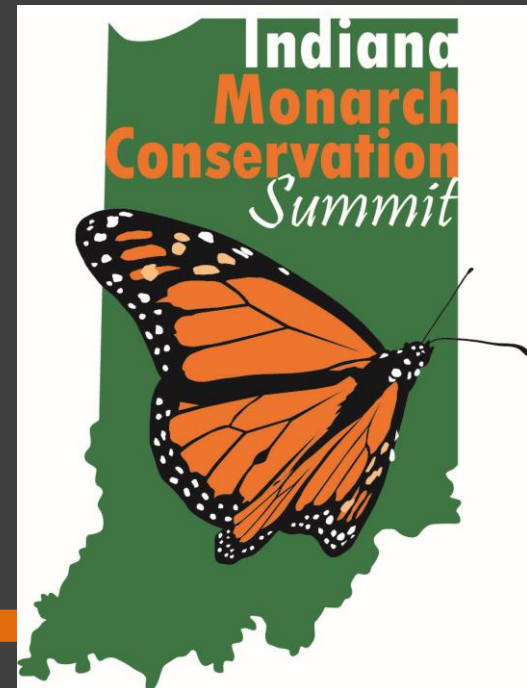


Photo courtesy of Jon Houghton/USFWS



# Monarch Wings Across the Eastern Broadleaf Forest

- 130 seed collector volunteers, 94 seed collections
- 22 lbs (\$10,000), 9,000 plugs grown out in 2017
- Technical Training Sessions w/ Pollinator Partnership
- Statewide Monarch Plan to be released in 2018



# Iowa

## Iowa Monarch Consortium drafting strategic plan

Table A1: Estimated range of acres and milkweed stem targets for monarch habitat establishment in Iowa from 2015 to 2038 by land-use category.

| Acres               | Range          |                | Stems*              | Range              |                    |
|---------------------|----------------|----------------|---------------------|--------------------|--------------------|
| Urban/Suburban      | 39,774         | 198,870        | Urban/Suburban      | 1,300,000          | 5,600,000          |
| Public†             | 144,041        | 156,674        | Public†             | 28,527,789         | 31,030,041         |
| Other†              | 62,749         | 67,049         | Other†              | 12,549,800         | 13,409,800         |
| Road Rights-of-Ways | 19,000         | 21,000         | Road Rights-of-Ways | 6,156,000          | 6,804,000          |
| Agricultural        | 214,000        | 387,000        | Agricultural        | 78,000,000         | 131,000,000        |
| <b>Total</b>        | <b>479,564</b> | <b>830,593</b> | <b>Total</b>        | <b>126,533,589</b> | <b>187,843,841</b> |

\* New stems include stems derived from new seeding and subsequent propagation. Biologically reasonable stem densities of 10 to 50, 197 to 199, 200, 200 to 324, and 150 to 600 stems/acre were assumed for Urban/Suburban; Public Lands; Other; Road Rights-of-Ways and Agriculture, respectively.

† These sectors include stems planted since 2015 through US Fish and Wildlife Service and other public programs.

IOWA STATE UNIVERSITY

Iowa Monarch Conservation Consortium



# Agriculture Partnerships



Monarch Collaborative





# Questions?



Website - [www.fws.gov/savethemonarch/SSA.html](http://www.fws.gov/savethemonarch/SSA.html)

Email - [MonarchSSAComments@fws.gov](mailto:MonarchSSAComments@fws.gov)





# Policy for the Evaluation of Conservation Efforts

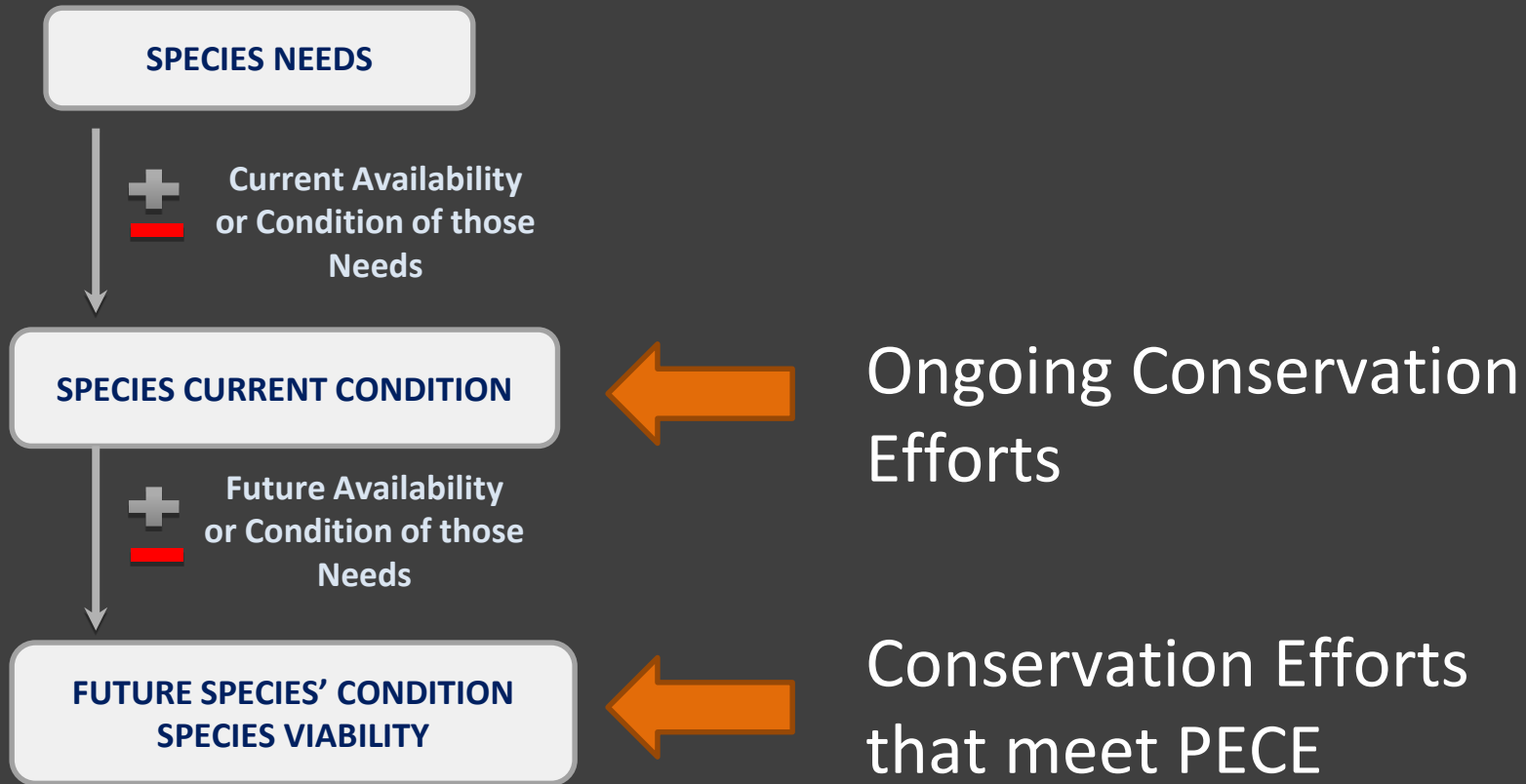
Two important factors when evaluating future conservation efforts:

The certainty that the conservation effort will be  
*implemented*

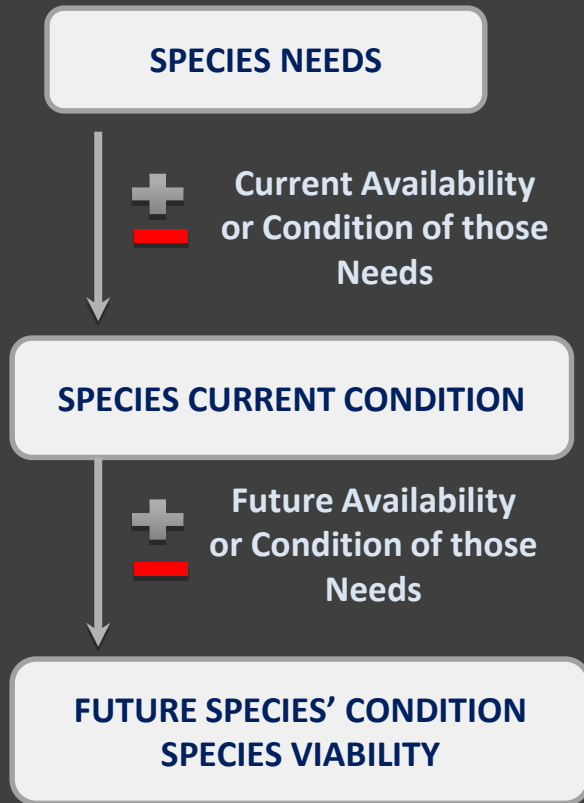
The certainty that the conservation effort will be  
*effective*



# Where does PECE fit with SSA?



# Species Status Assessment Framework



- The purpose of the SSA Framework is to describe the *viability* of species in a way that supports our ESA decisions.
- Viability for a species is the ability to sustain populations in the wild over time.



# Database: Key Components

- Conservation Plans
  - “conservation agreements, conservation plans, management plans, or similar documents approved by Federal agencies, State and local governments, Tribal governments, businesses, organizations, or individuals.”
- Conservation Efforts
  - “specific actions, activities, or programs designed to eliminate or reduce threats or otherwise improve the status of a species....may involve restoration, enhancement, maintenance, or other beneficial actions.”

