Creating and Improving Pollinator Habitat in the State of Ohio
Purpose

➢ Create and improve pollinator habitat across the State of Ohio.

➢ Increase and improve pollinator conservation awareness for all Ohioans.
Problem

➢ Pollinators are in decline nationwide including:
  ➢ Monarchs
  ➢ Native Bees
  ➢ Other pollinator species
  ➢ Vital nectar sources are also in decline.
  ➢ Especially in **Fall**
➢ The Monarch host plant, is lacking on the landscape.
USFWS Monarch Conservation Priorities

*This map is intended to inform U.S. Fish and Wildlife Service national-scale monarch butterfly conservation work. It was created using tools developed by the USGS-led Monarch Conservation Science Partnership, in this case highlighting priorities for maximizing overwintering population-level outcomes through a combination of focusing on geographic priorities, opportunity areas, and threats to be avoided. This is a DRAFT version and may be adapted or customized for different decisions and/or scales; updates will be ongoing, using the best available science.*
Midwest 2035 Target: 1.3B Stems
Ohio’s 2035 Target: 95M Stems 1.85M Acres
Proportion of monarch butterflies overwintering in Mexico that came from six breeding regions over 38 years

Northwest 12%
North-central 17%
Northeast 15%
Midwest 38%
Southwest 11%
Southeast 8%

Overwintering grounds in the Oyamel Fir forests of Mexico


@NorrisLab @TylerFlockart www.norrislab.ca
It’s About More Than Monarchs and Milkweed!

Benefits include wildlife and pollinator habitat and soil and water protection.

Photo credit: Pheasants Forever; from symposium: “Bees, Butterflies, Birds and You” - Featuring eight top pollinator experts at the National Pheasant Fest and Quail Classic at the Minneapolis Convention Center, February 17, 2017
Creating habitat for Monarchs helps other pollinators and wildlife!

Common eastern bumblebee, Bombus impatiens. Ohio’s 16 species of bumblebees are among our most important pollinating insects. Collectively, they are important pollinators of a large percentage of our native flowering plants.

Sweat Bee, Augochlorella sp. Tiny native bees often go unnoticed, but constitute a major group of important pollinators. Just the one family represented by the species in the photo – Halictidae – includes 500 species north of Mexico.

Flowerfly, family Syrphidae. There are nearly 900 species in North America north of Mexico, and flowerflies are ubiquitous pollinators in nearly all habitats. Many species are remarkable mimics of bees and wasps.

Flower Scarab, Trichiotinus affinis. There are eight species in this genus north of Mexico, but the scarab beetle family in its entirety includes about 1,400 species in the same region. Some, such as the flower scarabs, are efficient pollinators. Scores of other beetles are also vital to pollination.

Ruby-Throated Hummingbird, Archilochus colubris. The ruby throat is among the smallest of birds, weighing less than an ounce. Preferred flowers include jewelweed and cardinal lobelia, both wetland plants. Attracted to artificial feeders and will use many garden flowers as a source of nectar.
Ohio Bumble Bee Survey

- Summer 2017-2018
- In total ~23,600 observations
- Represent just over half of the species recorded in Ohio
- ~60% Common eastern bumble bee
- ~94% are 3 most common species - *B. impatiens*, *B. griseocollis*, and *B. bimaculatus*
- Also seen - *B. fervidus*, *B. vagans*, and *B. auricomus/pensylvanicus*

The search continues...How can you help?
You can become an active bee watcher and contribute real data to us by submitting photos of bees in your backyard or local parks to iNaturalist > the Ohio Bee Atlas project.

https://www.inaturalist.org/projects/ohio-bee-atlas
Working with Networks of Protected Areas

➢ Most states, agencies and conservation groups have conservation plans that target specific species or habitat conservation priorities.

➢ In order to meet these priorities multi level landscape planning is necessary.

What does this mean??

➢ An inclusive plan for incorporating multiple species benefits through habitat creation is implemented broadly throughout the implementation areas.

➢ In Ohio OPHI develops guidelines that incorporates Multi agency approved seed mixes, prescribed site selection and site prep guidance, etc.
Woodlands

Wetlands

Grasslands

Lakes, ponds, streams

Wetlands
Landscape Level Partnerships

How do we do this??

Ohio Pollinator Habitat Initiative
OPHI partners participate in numerous outreach events across the state, regionally and nationally giving us the ability to share our story and create a successful social media presence (mainly Facebook).

- Over 3,400 Facebook followers
- ODNR Twitter outreach: @ohiodivwildlife
  - Able to reach a broader audience sharing information and news from OPHI from the field.
Statewide Milkweed Pod Collection

To help foster the creation of habitat for the monarch butterfly, OPHI in cooperation with Ohio Soil and Water Conservation Districts along with multiple state and federal partners including ODNR, ODRC, ODA, USFWS, NRCS, Waste Management, OH-EPA, ODOT and others have organized the Annual Statewide Milkweed Pod Collection. All milkweed pods collected will be processed by OPHI partners and all of the seed collected will be used to establish new plantings and create additional habitat for the Monarch Butterfly throughout Ohio.

2016 - 2,500 gallons of pods
2017 - 2,494 gallons of pods
2018 - 3,876 gallons of pods

Multi-collaborative efforts on ground w/Federal, State, local agencies and citizens can work!