



DISCOVER | EXPLORE | EXPERIENCE

Pollinator Gardens: Lessons Learned

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Today

- **Planning – its all about Goals and Expectations**

Traditional Planting VS Pollinator Planting

- **Post Planting Care - Do I want this thing to succeed?**
- **Interpretation**
- **Some Cool Data from Doug Tallamy**



Everyone's
Goal is to
add Beauty
to our
world.

Beauty is
Subjective.



Planning: Failure is an option

Understand Expectations

- Site Managers
- Site Users

Set Project Goals

- Habitat, species, other mitigation needed to avoid failure.
- Change/edits **WILL** happen



We can't
assume that
even the
most skilled
volunteers
can read our
minds or our
plans.....

Planning

Your pivot to **native** over **nonnative** plants increases diversity in the greater landscape even if you only plant **one** species.

- **Simple designs are:**
- Easier to layout and plant
- Easier to maintain
- Easier to interpret
- More adaptable to small or formal landscapes



Planning: Maintenance

Current Site Use - Turf grass island with seasonal annual planting bed

1. Mow Weekly
2. Water/weed 1-2x a week
3. Spray broadleaf weeds 4x a year (Fertilize?)
4. Seasonal Annual flower change out 3x per year
5. Mulch?



Planning: Maintenance

Pollinator Planting

1. Planting 1x possible need for supplemental planting if something fails
2. Watering - Season 1, Weekly for year 1
 - a) Only during drought as needed following years.
3. Mulch - Annual functional then aesthetic
4. Weeding - Weekly
 - a) /Plant editing once plant density increases
5. Signage - optional



Trees and Shrubs are Pollinator Garden Plants TOO!



Planning - Expectations

Current Site Use

1. See the maintenance crew regularly – getting our \$ worth
 - a) Noise
 - b) Traffic disruption
2. Herbicide and fertilizer exposure to family and pets
3. Color change from seasonal planting - if they survive
4. “Neat and Tidy” ???

Pollinator planting

1. Messy
2. Not organized – dependent on design
3. Don't know how to contract maintenance
4. Less site visits
5. Less inputs
6. Less herbicide/fertilizer use
7. HABITAT

Planning - Habitat needs met?

Current Site Use Turf grass with seasonal annual planting

- Some bees and insects
Depending on annual planting material
Clover allowed in turf?
- Canada geese
- Canine waste disposal (but not treated)



Planning - Habitat needs

Pollinator Planting

- More components of HABIT provided
- Dependent on species planted and diversity of the planting
 - Nectar and pollen – bees/insects
 - Larval feeding - insects
 - Nesting Material – birds/ small mammals
 - Water ?
 - Cover - year round winter stems left in place
 - Winterseed heads food =Winter interest
 - Builds soil biome - micro flora and fauna



Planning- Installation

Site Prep/ Hardscape



People and Plants





Get Kids Involved!

It may be their only chance to learn this skill.

73% of **children** (ages 6-16) said they do not regularly play outside their homes.

Helen Dodd, Professor of Child Psychology at University of Exeter



"I guess worms aren't
nasty they can be nice"

Post Planting Care -

Maintaining for **Plants**:

- Water to establish
- Weed out early competition
- Leave alone
- Plants will migrate/compete



Maintaining for **People**:

- Keep distinct groupings/mixes
- Manage plant encroachment
 - mulch buffer
 - plant height lower at edges
 - plant pruning to reduce/manage “flop”
- High planting density
- Weed out seedlings that travel



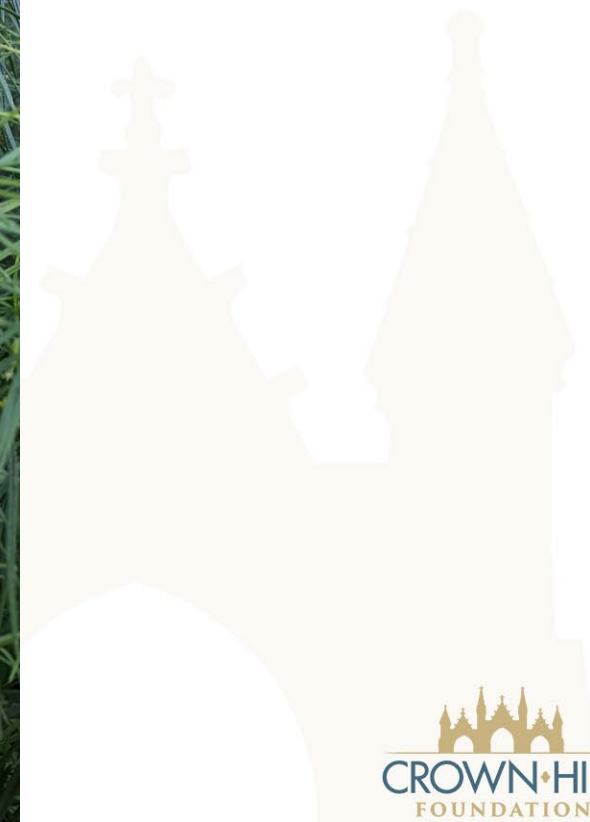
New gardens
need to be
protected
from
excessive
herbivory.



Many
Hands
Make light
work.....



And new
friendships!



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Weeding Wednesday — Not just for weeds

Having a regular weekly volunteer day/activity helps people feel welcome to help when they can.

Reduces the demand on staff/leaders to facilitate events to meet peoples' schedules.

Native plants that are weeds get repurposed on site or in our volunteers' gardens.

How do We Handel Debris

Learning Opportunity!



Interpretation - Physical Signage

- Temporary announcement (campaign style)
- Partner org recognition NPS, NWF
- Interpretive permanent signage specific to the site
 - Ways to Interact with the plating
 - Good Insects we expect to see
 - Benefits of native plants
- Plant ID labels
- QR Code to website or social media

White text on a dark background is easier to read in high light.



Temporary, homemade, or imperfect signage is still educational.

If a plant is not within 3' of the path it doesn't get a sign.





Monarch
Danaus plexippus



Tiger Swallowtail
Papilio glaucus

Welcome to our... WILDLIFE HABITATS



Red-tailed Hawk
Buteo jamaicensis



American Goldfinch
Spinus tristis



Little Bluestem
Schizachyrium scoparium



Common Milkweed
Asclepias syriaca



New England Aster
Symphyotrichum novae-angliae



Black-eyed Susan
Rudbeckia hirta



Eastern Bluebird
Sialia sialis



Red Fox
Vulpes vulpes



White Oak
Quercus alba

We invite you to enjoy the meadows and growing woodlands, taking time to walk the paths and find peace amidst the sounds, smells, and sights of nature.

We have planted native wildflowers, trees, and shrubs to attract and support pollinators such as bees and butterflies, and other insects and wildlife that are part of the interdependent web of life.

We hope spending time here lifts your spirit and sparks an interest to create more habitats for native wildlife in your own yard or neighborhood.

Unitarian Universalist Society of Mill Creek...

where our faith supports a connection to environmental stewardship. UUSMC.org
For information about creating habitats with native plants check out nwf.org/NativePlantFinder

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Green Sweat Bee



Leafcutter Bee

HELP NATIVE BEES Providing Food and Shelter for Pollinators



Bumblebees: *Bombus*



Large Carpenter Bees: *Xylocopa*



Metallic Green Sweat Bees: *Agrochloa*



Furrow Bees: *Halictus*



Long-horned Bees: *Melissodes*



Striped Green Sweat Bees: *Agropteron*



Mining Bees: *Andrena*



Leafcutter Bees: *Megachile*



Small Carpenter Bees: *Ceratina*

NATIVE BEES HAVE AMAZING DIVERSITY

Most people are familiar with honeybees and bumblebees, but did you know that Ohio is home to over 400 species of native bees? Unlike the non-native honeybee, most native bees are solitary and nest alone in the ground or in hollow cavities of plant material. There is a lot of diversity in our native bee population. They can be tiny like the Small Carpenter Bees, highly specialized like Mining Bees, and come in a wide variety of colors including the Metallic Green Sweat Bees. No matter the size, shape, or color, native bees share an important role in ecosystems as pollinators. Without native bees, we would lose most of our beautiful flowering plants and important crops, like tomatoes and pumpkins. Many native bee populations are in decline due to loss of habitat, including nesting sites and flowering plants.

HOW CAN YOU HELP? Plant Native Flowers!

Native bees require pollen and nectar from flowering plants. Select long-blooming native plants with large clusters of flower heads. Plant a diversity of native plant species to provide blooms from spring through fall. A few of the best flowers are shown below.



Coreopsis: Lanceleaf Coreopsis



Asclepias: Butterfly Milkweed



Monarda: Wild Bergamot



Hyssop: Anise Hyssop



Helianthus: Annual Sunflower



Aster: New England Aster

MAKE YOUR BACKYARD A HABITAT

In addition to food, water and nesting sites are important components of native bee habitat. All bees drink water, and some bees use water when making their nests. Add rocks or pebbles to your water features to prevent bees from drowning. Native bees also need ample nesting sites in various locations. 70% of native bees are solitary, ground nesting species and prefer to nest in sunny, undisturbed, bare soil. The remaining 30% of native bees nest above ground within cavities and natural plant materials like tree snags, stumps, and hollow plant stems. Incorporate water and nesting sites to create a complete backyard habitat for these important pollinators.

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Interpretation – Media/Virtual

- Neighborhood/ Organizations' Newsletter or Website
- Social media Page
 - Post all stages
 - Prep – Maintenance
 - Flowers and wildlife
 - Volunteer support and Care
 - Highlight Seasonal changes
 - Help folks calibrate to what they are seeing

Seasonal Progress



Interpretation – Proactive Positive Word of Mouth

Get Kids Involved!

Beat the rumors and negative opinions

Provide the Goals and the facts

“Plant” ambassadors in the community that know about the project

Local leadership recognition

SWCD, INPS, DAR, Local Gov Officials

Provide auxiliary related programming/tours in advance



Tallamy Tidbits:



Not Habitat

The US is home to over **50 million acres** of turfgrass.

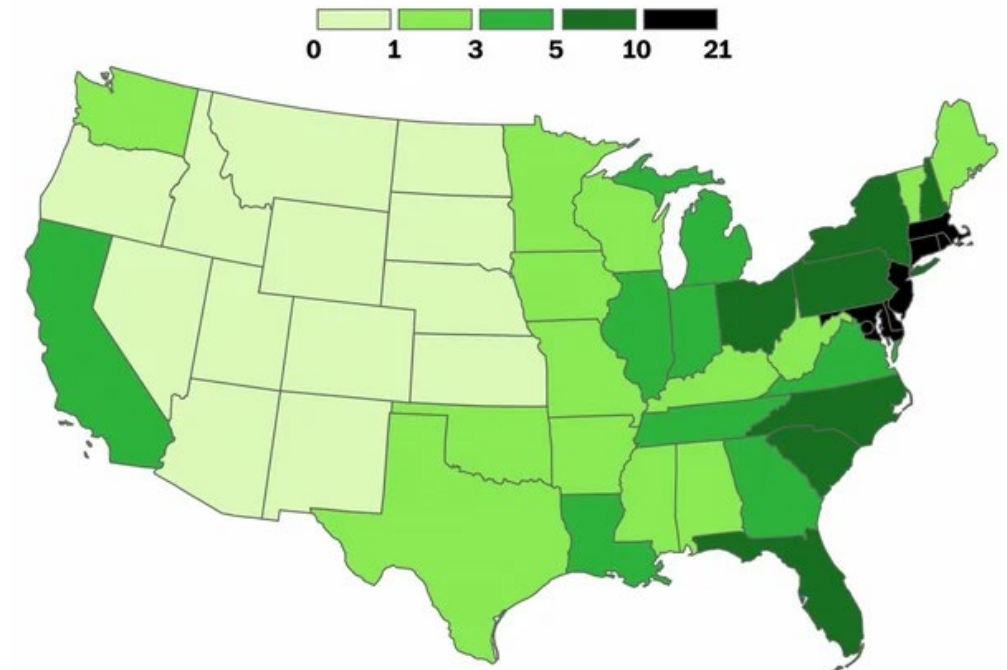
Land intentionally treated to be a monoculture.

Insecticides applied are generally broad spectrum.

Does not include land in AG Crops also generally monocultures.

Turf nation.

Percent of total land area covered by turf grass (lawns, golf courses, etc.)



WAPO.ST/**WONKBLOG**

Source: "Mapping and Modeling the Biogeochemical Cycling of Turf Grasses in the United States"



Change from a **THEY** Should to a **WE** should issue.

- New compatible native species
- Removal of Invasive plants
- Stop killing existing native plants





Inverse NIMBY

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83% of land in the U.S. is privately owned.
If we planted native on 50% of private land, we would
restore biodiversity... and we can do it starting NOW.

We greatly encourage municipalities and public places to
participate.

but right NOW, each of us can take an ACTION.

Let's start planting!





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