



How to create a Pollinator Paradise Right in your backyard



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Think beyond the honeybee . . .

- There are 340 different species of bees *native* to CT
- Besides these native bees. . .
. . .butterflies, moths, insects, bats and even birds help pollinate
- Pollinators visit flowers in their search for food
 - Many plants *cannot reproduce* without foraging pollinators
- Most fruit, vegetable, and seed crops are pollinated by these creatures
- Scientists estimate that 1 out of every 3 bites of food we eat exists because of these pollinators



. . .All pollinators matter



Our pollinators are in trouble

- Populations of many insects are crashing. . .as are many bird species
 - The entire food web is at risk
- Loss of habitat is to blame, due to:
 - Development
 - Pesticide use
 - Climate change
- Native species – creatures and plants which evolved together -- are vital to the survival of a diverse ecosystem
- Here's where we all can help. . .



The New York Times Magazine
"The Insect Apocalypse Is Here" 11/27/18

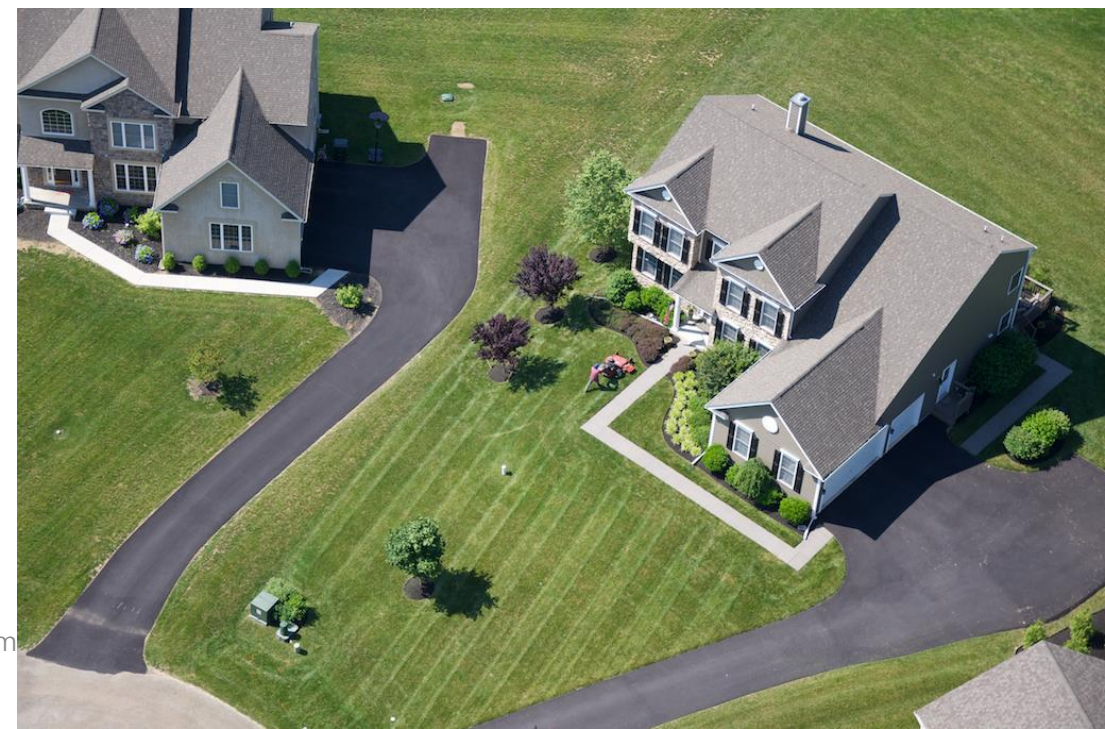


National Geographic May 2020

Home pollinator habitats are vital

- 85% of the land east of the Mississippi is privately owned
- The open spaces that remain (15%) are not connected enough
- Habitat loss is a primary factor in species extinction
- Each lost species disrupts the food web of creatures who evolved with it
- Chemical-laden lawn monocultures and non-natives are food deserts
- We can create habitats in our yards that restore the diversity that is lost
- When we protect the insects, we support what feeds on them
- Pollinators ultimately feed us

*We are the stewards of
the land our ecosystem
depends on*



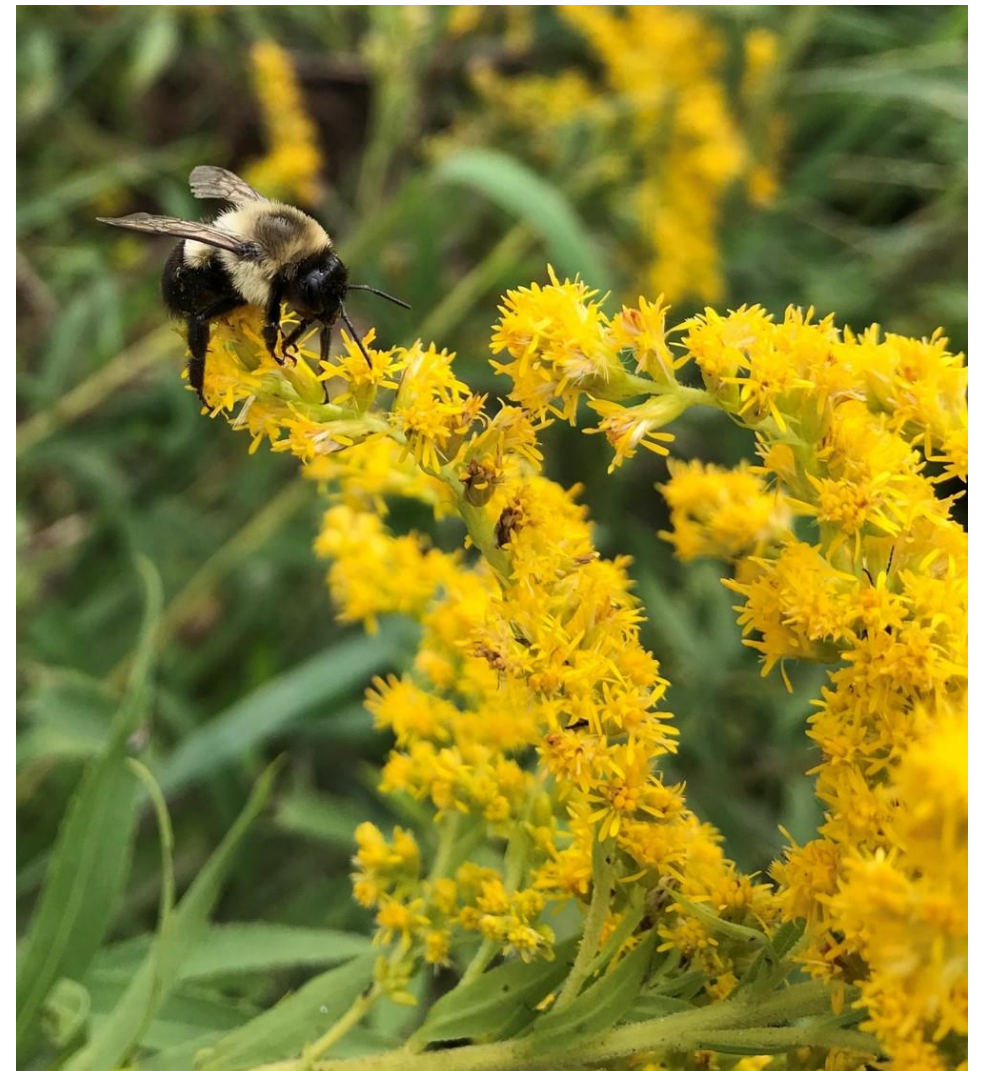
Make your garden pollinator-friendly

- Pick a spot that gets, ideally, 6 hours of sun
 - Near a source of water (or birdbath) is ideal
 - Avoid windy sites



Make your garden pollinator-friendly

- Plant mostly native perennials to provide pollen & nectar
 - Aim for a succession of bloom June-October:
 - Asters, anise hyssop, baptisia, bee balm, black-eyed susan, columbine, coneflower, goldenrod, liatris, NY ironweed, sedum Autumn Joy, tickseed



Make your garden pollinator-friendly

- Plant annual flowers which provide nectar & pollen
 - Ageratum, cosmos, cleome, marigolds, lantana, Mexican sunflower, zinnias (caution: hybrids often do not have pollen)



Most annuals are not native to our area; they come from hot climates and bloom until frost. But, they play a useful role in a diverse pollinator garden, supporting continuity of bloom.



Annuals help ensure a continuous supply of nectar

Tips on choosing pollinator favorites

- Choose local nurseries who offer diverse native selections
 - Look for the plants with the most bees & butterflies on them at the nursery!
- Look for a bee/pollinator symbol on the plant tag/online when you are buying
- Detailed information on harder-to-find natives can be found at prairiemoon.com



Check out this table of Native plants and the insects that love them
<https://www.prairiemoon.com/PDF/Prairie-Moon-Holm.Native-Plant-Insect-Interactions.pdf>

Botanical Name	Common Name	Bumble Bees	Solitary Bees	Specialist Bee	Butterfly/Moth	*Host Plant	Wasps	Beetles	Hummingbirds
*Host Plant (larval): Defined as a specific plant or genus that a butterfly or moth larva feeds upon.									
<i>Actaea rubra</i>	Red Baneberry		●						
<i>Agastache foeniculum</i>	Anise Hyssop	●	●		●			●	●
<i>Agastache scrophulariaefolia</i>	Purple Giant Hyssop	●	●	●	●			●	●
<i>Allium cernuum</i>	Nodding Onion	●	●					●	
<i>Allium tricoccum</i>	Wild Leek	●	●						
<i>Amelanchier canadensis</i>	Shadblow		●						
<i>Amorpha canescens</i>	Lead Plant	●	●			●	●	●	
<i>Amsonia illustris</i>	Ozark Bluestar	●	●		●				

Germination Code

C(60) D

Life Cycle

Perennial

Sun Exposure

Full, Partial

Soil Moisture

Medium-Wet, Medium, Medium-Dry

Height

6 feet

Bloom Time

July, August, September, October

Bloom Color

Purple

Advantages



USDA Zones

3-8

Plant Spacing

18-24"



Pollinator favorite flower lists

Hummingbird Favorites

Aquilegia canadensis – [Columbine](#)
Asclepias tuberosa – [Butterfly Weed](#)
Astragalus canadensis – [Canada Milk Vetch](#)
Campanula rotundifolia – [Harebell](#)
Chelone glabra – [Turtlehead](#)
Delphinium species – [Larkspurs](#)
Echinacea species – [Coneflowers](#)
Lilium michiganense – [Michigan Lily](#)
Lobelia cardinalis, L. siphilitica – [Cardinal Flower](#), [Great Blue Lobelia](#)
Monarda species – [Wild Bergamot](#) (Bee Balms)
Penstemon species – [Beardtongues](#)
Physostegia virginiana – [Obedient Plant](#)
Silene regia – [Royal Catchfly](#)

Heather Holm, national bee expert, has created several info sheets on plants that support native bees. You can download them at:

<https://www.pollinatorsnativeplants.com/plant-lists--posters.html>



Butterfly/Insect Favorites

Agastache species – [Hyssops](#)
Allium species – [Onions](#)
Amorpha species – [Lead Plant](#), et.al.
Aquilegia canadensis – [Columbine](#)
Asclepias species – [Milkweeds](#)
Aster species – [Asters](#)
Baptisia species – [Indigos](#)
Campanula americana – [Tall Bellflower](#)
Cassia hebecarpa – [Wild Senna](#)
Ceanothus americanus – [New Jersey Tea](#)
Coreopsis species – [Coreopsis](#)
Delphinium species – [Larkspurs](#)
Echinacea species – [Coneflowers](#)
Eupatorium species – [Joe Pye Weed](#), et.al.
Helianthus/Heliopsis species- [Sunflowers](#)
Liatris species – [Blazing Stars](#)
Lobelia cardinalis, siphilitica – [Cardinal Flower](#), [Great Blue Lobelia](#)
Monarda species – [Wild Bergamot](#), [Bradbury's Monarda](#) (Bee Balms)
Penstemon species – [Beardtongues](#)
Petalostemum (Dalea) species – [Prairie Clovers](#)
Phlox species – [Phlox](#)
Pycnanthemum species – [Mountain Mints](#)
Ratibida species – [Coneflowers](#)
Rudbeckia species – [Black-eyed Susans](#)
Silphium species – [Compass Plant](#), et. al.
Solidago species – [Goldenrods](#)
Tradescantia species – [Spiderworts](#)
Verbena species – [Vervains](#)
Vernonia species – [Ironweeds](#)
Viola species – [Violets](#)
Zizia species – [Golden Alexanders](#)

Suggested flowers for a full sun garden

- Deer-resistant, pollinator favorites which provide a long sequence of bloom

Early season bloomers



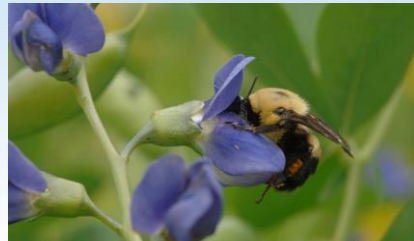
Aquilegia canadensis
Wild columbine



Lupinus perennis
Wild blue lupine



Penstemon digitalis
Tall white beardtongue



Baptisia australis
False blue indigo

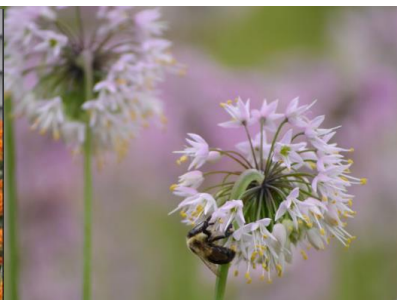


Coreopsis lanceolata
Lance-leaf coreopsis

Mid-season bloomers



Asclepias tuberosa
Butterflyweed



Allium cernuum
Nodding onion



Monarda fistulosa
Wild bergamot



Eryngium yuccifolium
Rattlesnake master



Rudbeckia hirta
Black eyed susan

Late season bloomers



Helenium autumnale
Sneezeweed



Schizachyrium scoparium
Little bluestem



Solidago speciosa



Symphoricarpos novae angliae
New England aster



Helianthus tuberosus
Jerusalem artichoke

Suggested flowers for a part sun garden

- Deer-resistant, pollinator favorites which provide a long sequence of bloom

Early season bloomers



Tiarella cordifolia
Foamflower



Geranium maculatum
Wild geranium (aka cranesbill)



Aquilegia canadensis
Wild columbine



Zizia aurea
Golden alexander



Amsonia tabernaemontana
Eastern bluestar



Penstemon digitalis
Foxglove beardtongue

Mid-season bloomers



Asclepias incarnata
Swamp milkweed



Monarda punctata
Spotted beebalm



Agastache foeniculum
Anise hyssop



Pycnanthemum muticum
Broad-leaved mountain mint



Rudbeckia subtomentosa
Sweet Black-eyed Susan

Late season bloomers



Conoclinium coelestinum
Mistflower (Wild ageratum)



Symphyotrichum cordifolium
(Common Blue Wood Aster)



Solidago speciosa
Showy goldenrod



Eutrochium purpureum
Sweet Joe Pye Weed



Vernonia noveboracensis
NY Ironweed

Pollinator gardening resources

Westport Library's Pollinator Pathway resource page:

<https://westportlibrary.libguides.com/c.php?g=665012&p=6708439&preview=f9fd7b99bda5d626b92fa5fd580a4d1f>

Home page for Fairfield & Westchester counties' Pollinator Pathway resources:

<https://www.pollinator-pathway.org>

Wild bees of New England – guide to pollinators and flowers

https://a405abfc-cc29-4d83-80dc-8317bff89633.filesusr.com/ugd/507894_4706adc6fa40436a8c8a58cc61302fa7.pdf

Native Plants for the Small Yard – garden design ideas

https://a405abfc-cc29-4d83-80dc-8317bff89633.filesusr.com/ugd/7bd21d_8148d77b9a6c41909e59d89b3a964804.pdf

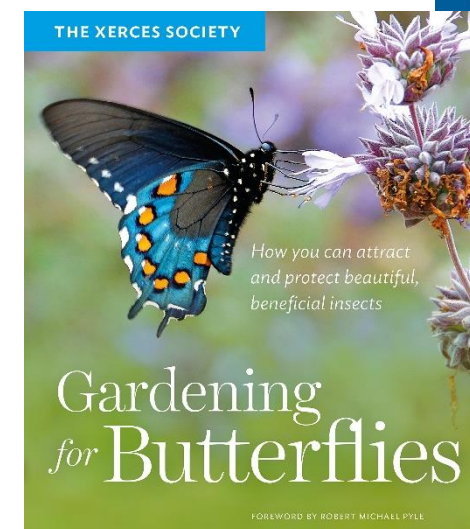
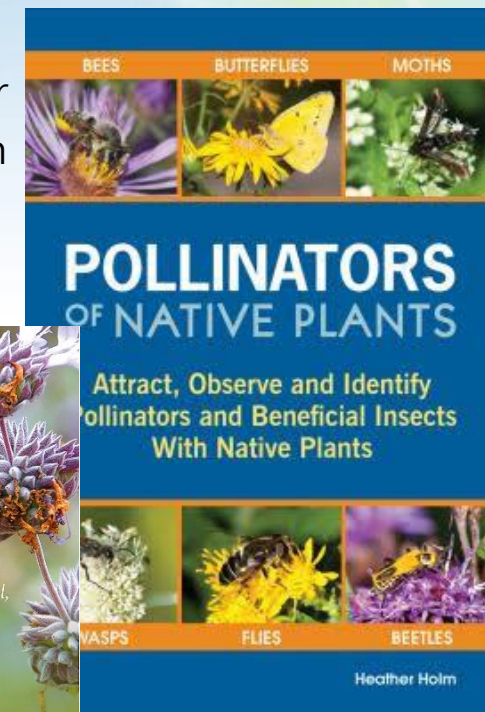
Prairie Moon Nursery resource pages

<https://www.prairiemoon.com/blog/how-to-attract-birds-and-butterflies>

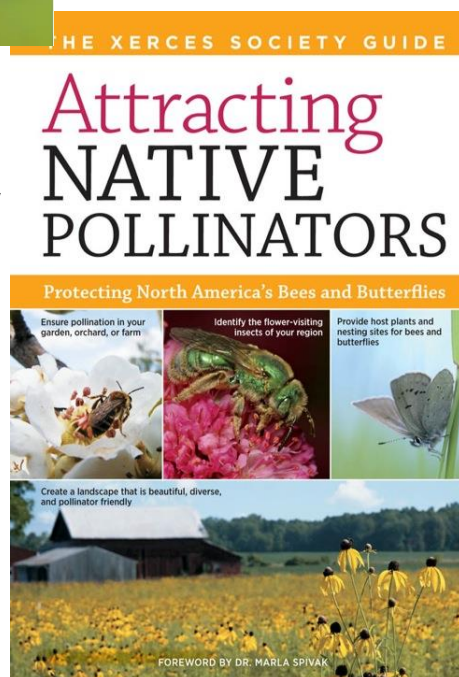
Gardening with climate-smart native plants in the Northeast

https://scholarworks.umass.edu/eco_ed_materials/8/

Heather
Holm



Xerces
Society



It's not just about the flowers. . .

Native trees and shrubs provide pollen and nectar
--especially important early in the season (April/May)

Three deer resistant shrubs



Sweet pepperbush (clethra)



Mountain laurel (kalmia)



Northern spicebush
(lindera)

Three deer resistant trees



Witch hazel
(hamamelis)



Pussy willow (salix)



Grey dogwood (cornus)

Rethink your lawn

- Leave clippings on the grass as fertilizer rather than adding chemicals
- Leave the leaves--many pollinators overwinter in leaf matter
- Leave some dead wood and dirt patches for nesting bees
- Use slow-release organic fertilizers or none at all
- Reduce lawn size by adding native plants
- Mow less often
- Avoid pesticides – have a healthy lawn for everyone!

<https://www.pollinator-pathway.org/pesticide-free-alternatives>

https://a405abfc-cc29-4d83-80dc-8317bff89633.filesusr.com/ugd/507894_0e357c44ebaa4d21846dda30cef47cf5.pdf

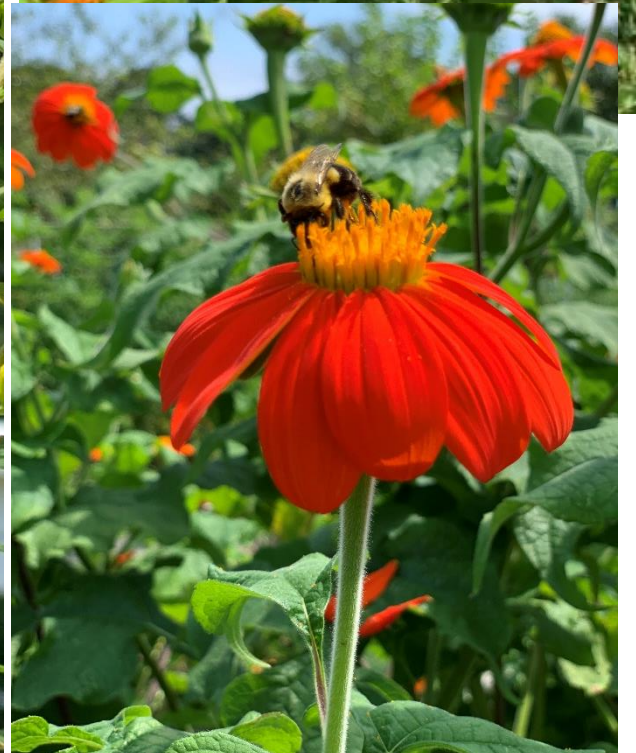
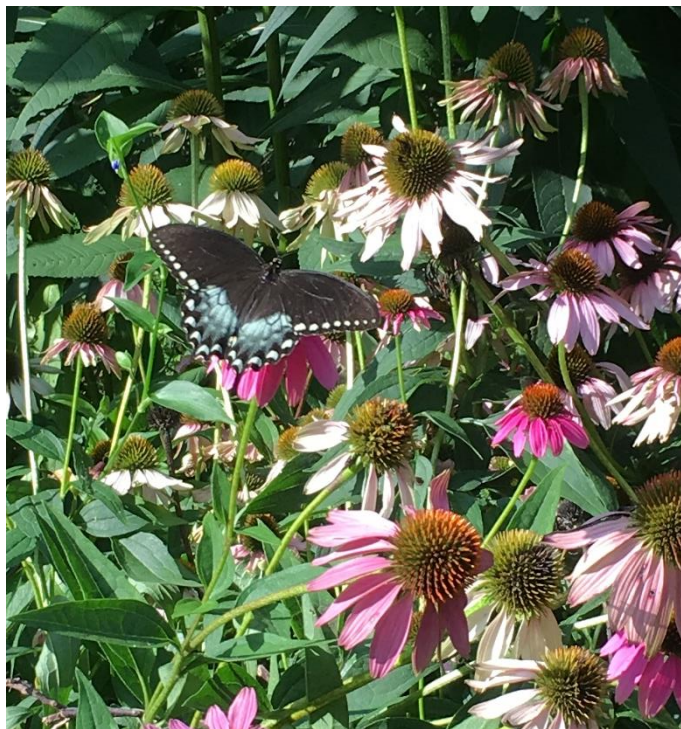


To make your yard pollinator-friendly, remember the five essentials:

- Pick a sunny spot (at least some sun is needed)
- Plant for all-season bloom – at least 70% natives
- Plant perennials & annuals high in nectar & pollen
- Go organic – no pesticides or herbicides
- Follow pollinator friendly lawn & landscaping practices



When you grow it,
they will come!



Be a friend to all pollinators: Join the Pollinator Pathway in your town

Pledge to support and protect local pollinators by adding native plants and refraining from the use of pesticides and herbicides

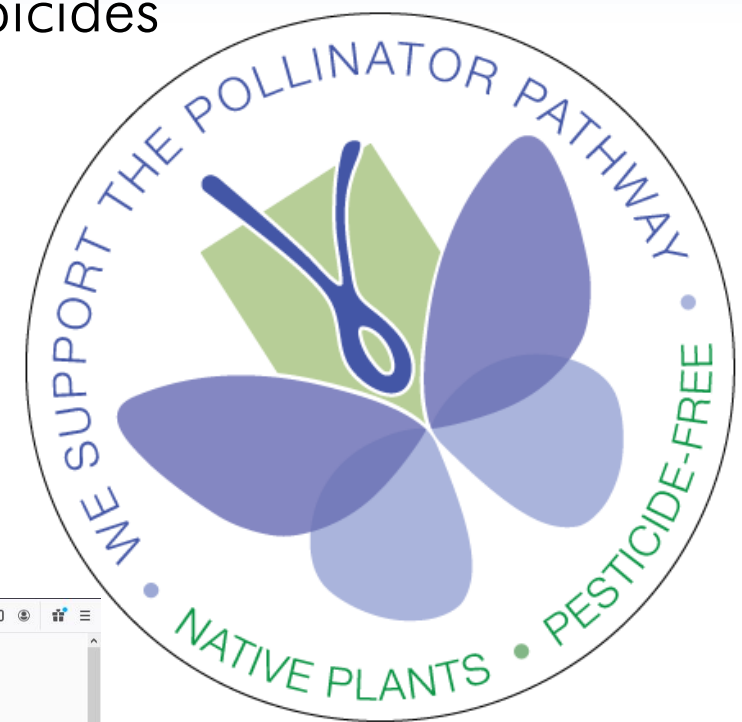
Sign Up!

To Sign up, call (877-679-2463)

or write to: info@pollinator-pathway.org

Learn about local actions, resources on invasive and native plants, and be invited to community events!

Visit www.pollinator-pathway.org



Post this sign proudly on your mailbox so neighbors will know – and be inspired to join, too!

Questions? Just ask. . .



As a garden coach, I garden with you, not for you.
Just beginning? Want to take your skills to the next level?
. . . or branching out? I'm happy to help.



Alice Ely, UConn advanced master gardener, master composter
and monarch aficionado

Contact: alice@gardenwithalice.com

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Be a Friend to All Pollinators:

Join the Pollinator Pathway in your town

Westport's Pollinator Pledge

Pledge to support and protect local pollinators by adding native plants and refraining from the use of pesticides and herbicides

Include:

A sequence of bloom from spring to fall, especially native host plants & pollinator favorites

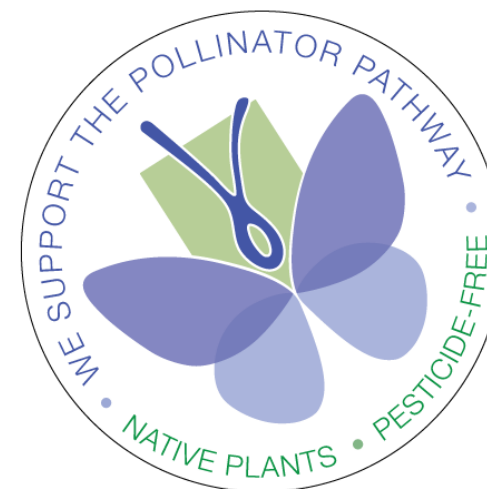
A water feature (a bird bath, fountain or natural source)

Shelter such as leaf mulch, bee houses, and uncut plant stems for the fall/winter

Avoidance of pesticides and herbicides on lawn and garden

Organic practices such as compost (no synthetic fertilizers or treated mulch)

Pledge forms provided and signs may be purchased for a \$5 donation at Earthplace & Wakeman Town Farm upon reopening



How to Get a Monarch Waystation Certification

Your habitat must meet these general parameters:

- **Size-** There is no minimum; can be integrated into an existing garden; 10 ft. x 10 ft. is recommended as a starting point for an effective monarch habitat
- **Exposure-** at least six hours of sun a day
- **Drainage and Soil Type-** plants do best in relatively light (low-clay) soils with good drainage
- **Shelter-** plants should be close together without crowding to protect from weather & predators
- **Milkweed Plants-** at least 10 plants, made up of two or more species
- **Nectar Plants-** blooming sequentially or continuously from June through October. A Monarch Waystation should contain at least 4 annual, biennial, or perennial varieties
- **Management-** you commit to maintain good garden practices at the habitat site (e.g., mulching, thinning, weeding, etc.)
- **Certification.** You can then apply at MonarchWatch.org, to be certified as a Monarch Waystation. Your habitat will be included in the online Monarch Waystation Registry. You may choose to purchase a weatherproof sign to display.



As of April 2016, there were **13,089** Monarch Waystation habitats in the nation,
registered with Monarch Watch.

– as of March 2020, there are **27,529!**

In 2016, there were only **9** in the state of Connecticut. . .now there are **369!**

LET'S KEEP UP THE MOMENTUM!