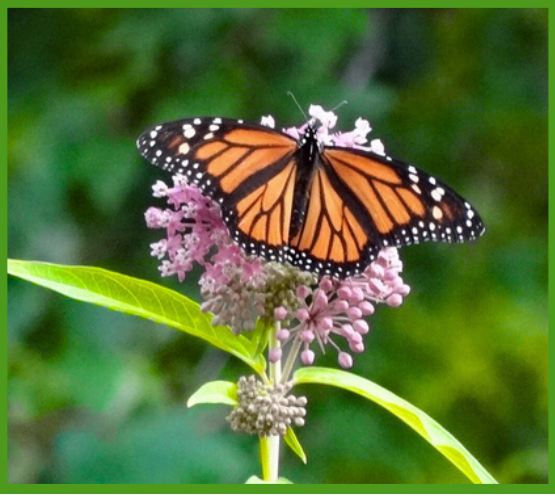
SUSTAINABLE SIMSBURY

April 2025

# NEWSLETTER

A Publication of the Simsbury Sustainability Committee



For our April, May, and June editions - peak gardening months - we've invited the Simsbury Pollinator Pathway (SPP) to be our guest contributor. SPP is a not-for-profit volunteer organization dedicated to building a pollinator pathway throughout the town. A pollinator pathway - a series of linked pollinator-friendly, native-plant-filled spaces that includes residential yards, municipal land, business properties, and open space - provides a safe habitat for pollinators. The newsletters will provide helpful information about why pollinators are a critical part of our ecosystem, and how we can help them thrive.

## Pollination: Remind Me, Please?

***Why all the concern about a bunch of bugs?***

There's a number of very good reasons to support pollinators, and we'll discuss that shortly, but to start, we're going to take a non-stressful trip back through the mists of time to 6th grade science class and talk about pollination.

***Is there going to be a quiz on this?***

No worries, no quiz, but it is helpful to know the parts of a flower:

- **Pistil:** Female parts of a flower. Includes stigma (where pollen lands), style (stalk-like part between stigma and ovary), and ovary (at the base, develops into the fruit and contains the seeds).
- **Stamen:** Male part of the plant containing the pollen, anther, and filament.

*(more awesome science on the next page...)*

### UPCOMING EVENTS

Simsbury Land Trust Presents:
*Invasive Plant Workshop*
April 19, 9 a.m. - 11 p.m.
Presenter: Margery Winters
Simsbury Farms Apple Barn

SPP Presents:
*Soil: It's Not Just Dirt!*
April 22, 7 p.m.
Presenter: Margery Winters
Simsbury United Methodist

Simsbury Land Trust Presents:
*Return of the Old Growth Forest*
April 23, 6:30 p.m. (Film)
Simsbury Public Library

Simsbury Sustainability Fair
May 3, 10 a.m. - 2 p.m.
Simsbury Public Library

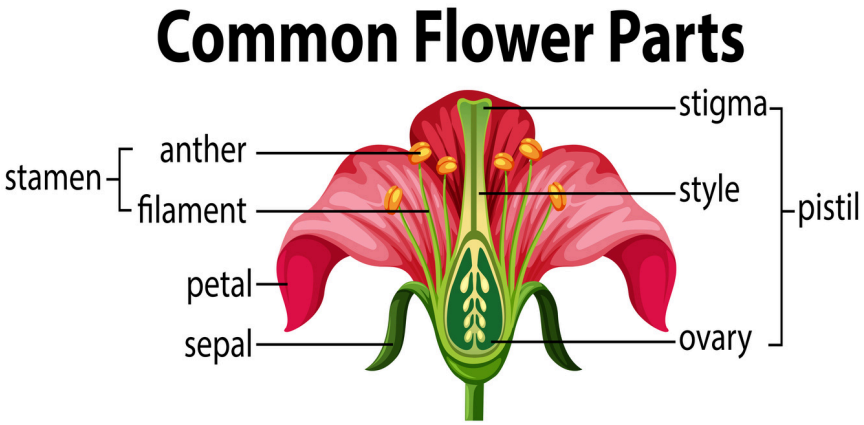
SPP Presents:
*Branching Out: How Trees Support Pollinators*
May 12, 7 p.m.
Presenter: Calum MacEwan
Simsbury United Methodist

*(...awesome science continued)*

***Ah, yes, it's all coming back to me now! And then?***

Pollination is a plant reproduction process. Stamens produce pollen grains which are transmitted to a pistil where they then fertilize the flower; this leads to seed and fruit production. Most pollination is done through pollinators, carrying pollen from flower to flower.

This is beneficial to both plant and pollinator; pollinators may consume pollen and nectar provided by the plants and, in the process, additional pollen gets caught on the hairs on the animal's body. When a pollinator with pollen from one flower visits another, pollen is transferred, and voila! Fertilization! Pollen from flower #2 is transferred to the pollinator, and then to flower #3, and so on and so on!




A pollen-covered green sweat bee (native to Connecticut) rests on a flower. (Photo: Awbury Arboretum)

## *What's the Difference Between Pollen and Nectar?*

*Courtesy of the website (GardenersWorld.com) of our favorite British gardener, Monty Don, here's the explanation:*

Pollen is mainly used by bees. Packed with protein, Queen bumblebees use pollen to engage their ovaries after hibernation, so they can start laying eggs. Bees also collect pollen and use it to feed their young, which makes them grow strong and healthy. Some pollinators eat pollen, such as some types of beetles and wasps.

Pollen is the fine, sticky residue you find on male flower parts (stamens). Usually yellow, but often orange, purple, and even black, its primary role is fertilizing female parts of the flower (stigma) to produce seed or fruit.

Flowers use bees to ensure pollen is transferred from male to female flower parts. In return, they produce a sugary liquid called nectar. Nectar lures bees in and rewards them for their efforts in pollination. Nectar is essentially sugary water, and is largely the same in all flowers, although some flower 'nectaries' refill with nectar more often than others. For example, borage flowers refill with nectar every two minutes.

Being so sugary, nectar is packed with carbohydrates, which give bees the energy they need to fly. Indeed, it's thought bees can live for only 24 hours without nectar, unless they're hibernating. Other pollinators use nectar, too, including butterflies, hoverflies and other flies, and some beetles. They all use the energy from the nectar to find mates and establish nests.

# Pollinators: Not Just A Pretty Face

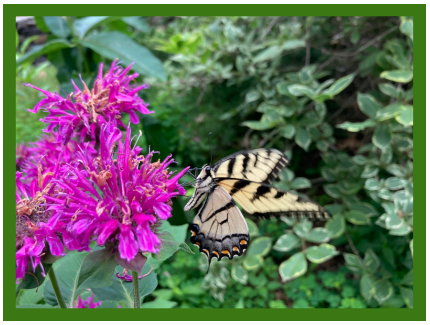
***That was a great refresher! So, it's just bees who pollinate, right?***

Actually, bees, specifically our state's ***300*** species of native bees (not the same as European honeybees) are a very big part of pollination in Connecticut, but they aren't the only ones punching in and out of pollination work. And work native bees do, rarely resting - but if you're lucky, you'll catch your yard's bees taking a well deserved nap amongst flower petals!

Wind-driven pollen

In addition to bees, pollinators include many other insects such as butterflies, moths, flies, beetles, and wasps; as well as birds, bats, small and large mammals, amphibians, reptiles… and the wind!

Sleeping Bees
(Jay Neely, Photographer)



Yellow swallowtail on bee balm
(Simsbury yard)

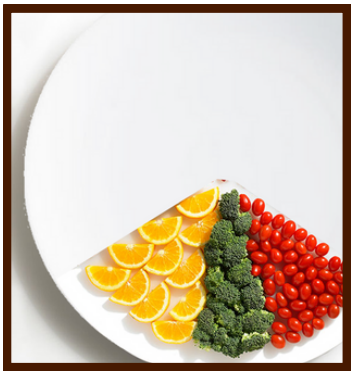
Bee with full pollen sacs on salvia
(Simsbury yard)

# Pollinators: We Need Them!

We've reviewed pollination, we've met the pollinators, now let's talk about what's happening in the world today - and unfortunately, it's not great news for the pollinators and earth in general.

Three-fourths of the world's flowering plants depend on pollinators to reproduce. Most fruit, vegetable, and seed crops – and other plants that provide fiber, medicine, and fuel – are pollinated by animals. Some scientists estimate one out of every three bites of food we eat exists because of animal pollinators like bees and other insects. Pollinator populations are declining worldwide and over 87% of flowering plant species and 87 of the leading global food crops rely on pollinators for seed production. **Pollinator decline seriously impacts biodiversity conservation, reduces crop yield, and threatens food security.**

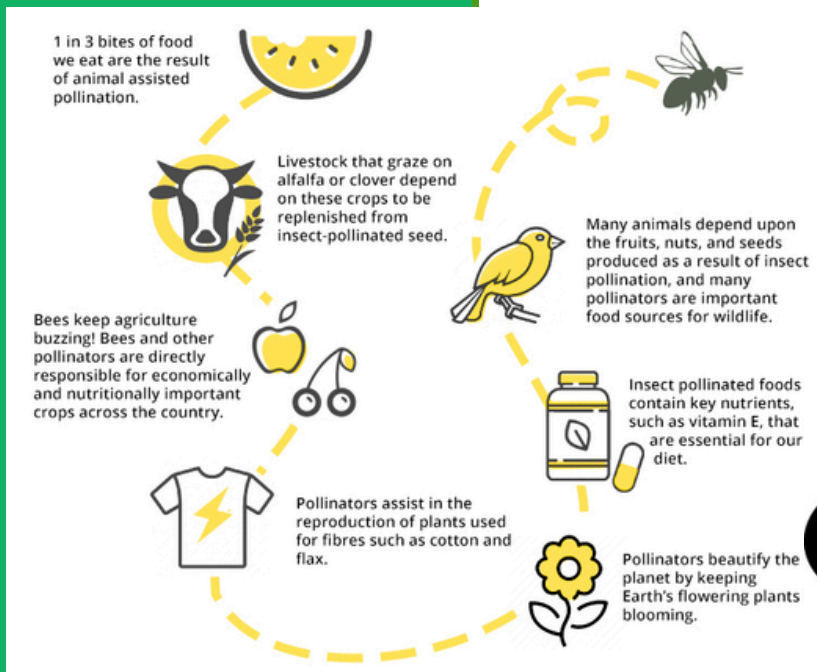
With a Healthy
Pollinator Population



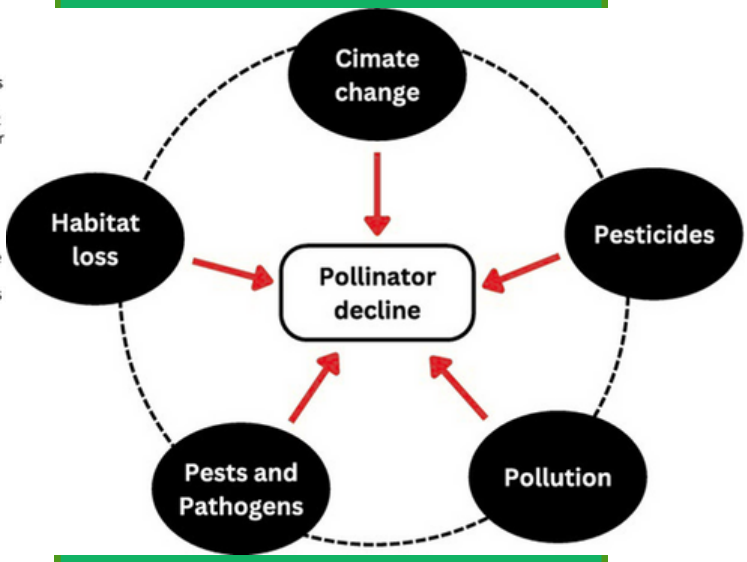
Without Pollinators

Photos: *The Daily Mail*

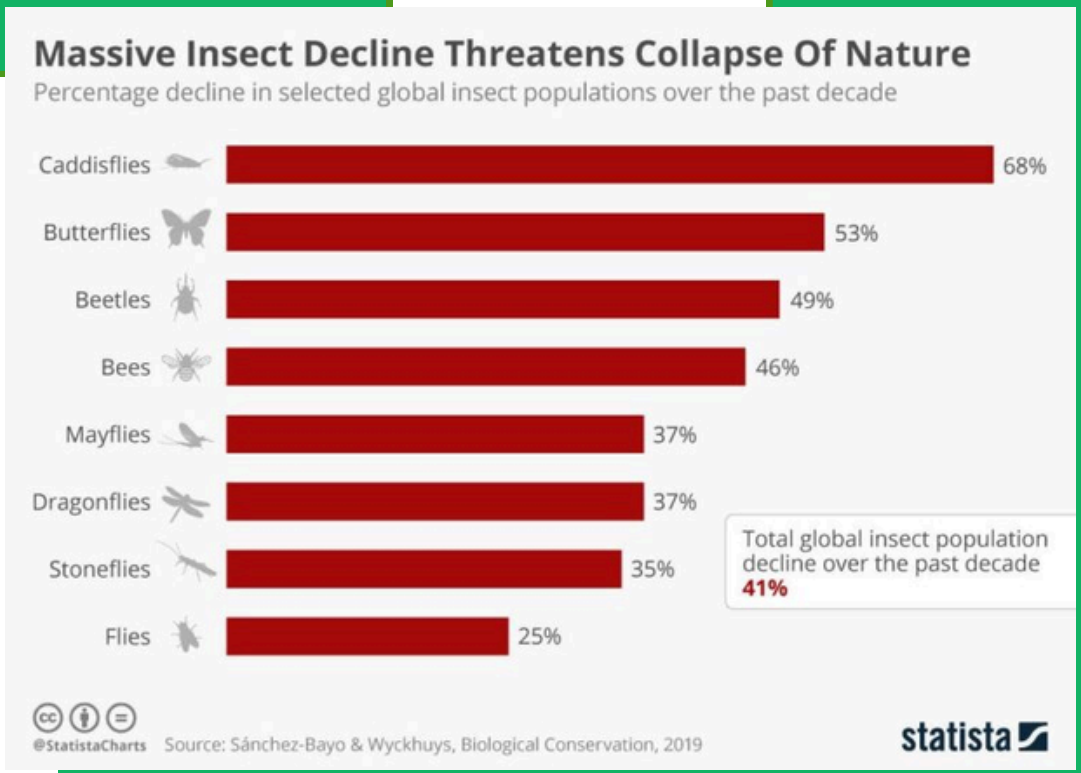
# THE GOOD...




# THE BAD...




# THE UGLY



# What Do We Do To Help? GO NATIVE!

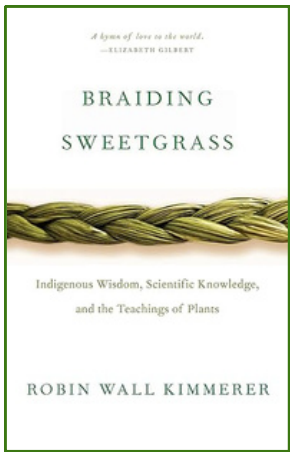
The May issue of this newsletter will provide more information about the pollinators in your yard, and discuss invasive species and native plants. It's native plants - plants that are indigenous to New England - that pollinators are looking for, and it's native plants that will provide the food that they need to survive. The issue will include ways to add these important plants to residential yards. And don't worry if you're just starting, we'll turn fear into fearless for those who are beginners!

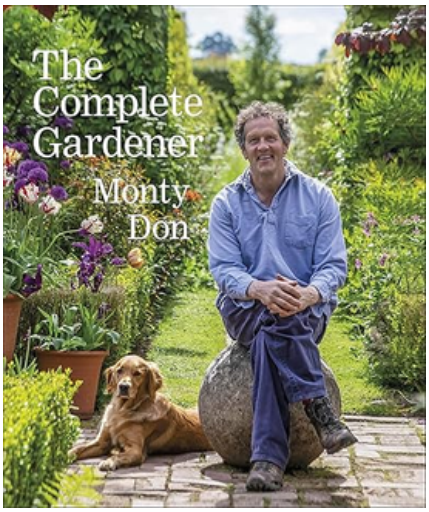
In the meantime, resist the urge to clean up your gardens and yard in April! The bees are still sleeping in the ground and in stalks of flowers, fireflies are resting in the dirt, moths and butterflies are wrapped up in the leaves on the ground, and in general things are still best left alone.

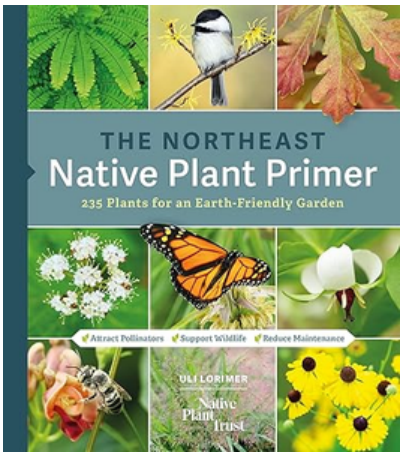
Bless This Messy Simsbury yard!
It's Keeping Overwintering Pollinators Safe!

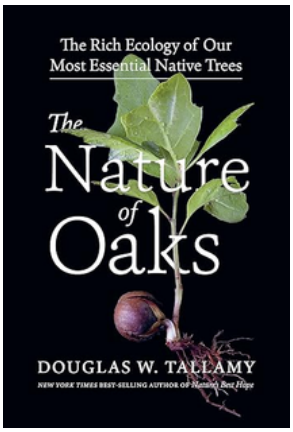
# While You're Waiting Patiently...

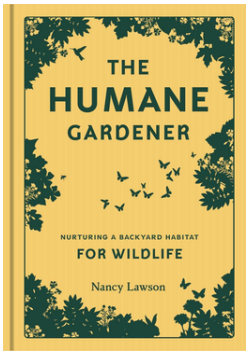
It's really hard to wait, especially when you're thinking about something that will not only help the pollinators, but also create a beautiful home habitat! To help you pass the time here are some of our favorite garden (or plant adjacent) books for your reading pleasure.

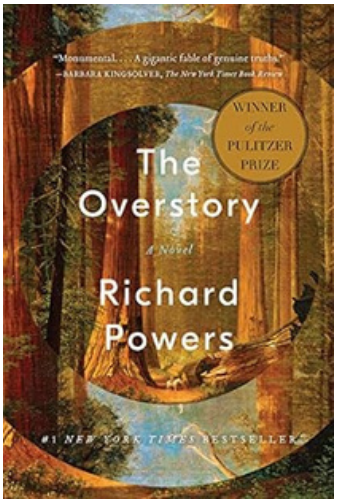


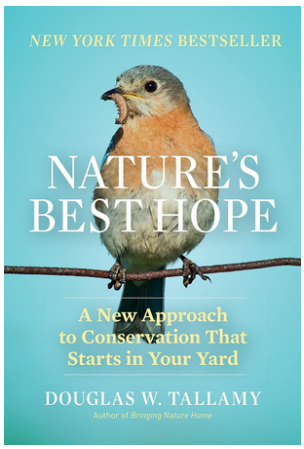



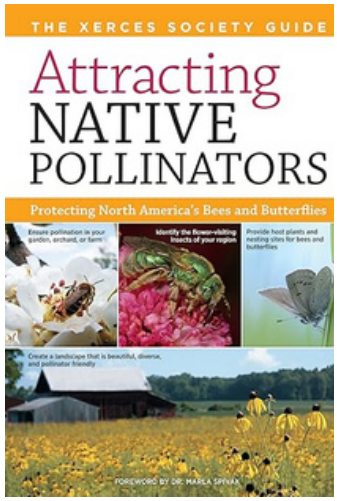



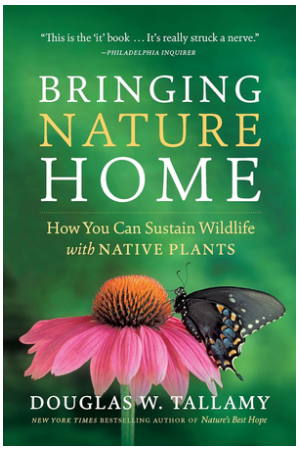






Additional Sources: *SPP Master Plan, UCONN Extension, CT DEEP, Xerces Society, National Library of Medicine*