

# Pollinator Garden Design

### October 16, 2024



Eliza Lawrence School Gardens Coordinator Regional Environmental Council eliza@recworcester.org





### **Regional Environmental Council**

Our mission is to bring people together to create a just food system and to build healthy, sustainable, and equitable communities in Worcester, MA and beyond.

#### YouthGROW



#### Farmer's Markets



#### UGROW



The goal of the REC School Gardens Program is to increase access to and use of garden spaces and garden related education for students, educators, and families.







We provide direct resources such as building beds and providing plants, compost, and tools, and offer in and out of classroom workshops, field trips, and after school clubs

### **School Gardens**

- Farm to Early Childhood Project
- Classroom & Garden based programs, in and after school
- Farm Field Trips







#### Worcester Native Plant Initiative









## Why Pollinators? Why Native? Why Schools?



#### What have we learned over the years?

- Our summers are unpredictable, and schools are empty
- Native plants are much more resilient
- Certain plants that are drought or rot resistant, have deeper roots, don't need as much maintenance
- Expanding what we consider food
- Attracting more pollinators
- Habitat and Life Cycle
- Climate Resilient gardening in small spaces



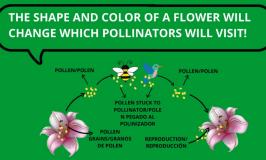
#### **POLLINATORS AND PLANTS**



#### **POLINIZADORES Y PLANTAS**

POLLINATION IS THE PROCESS THAT ALLOWS PLANTS TO REPRODUCE. THIS HAPPENS WHEN POLLEN IS TRANSFERRED FROM ONE PLANT TO ANOTHER BY WIND, RAIN, OR POLLINATOR SPECIES SUCH AS BEES, BATS, HUMMINGBIRDS, MOTHS, AND BUTTERFLIES. POLLINATOR GARDENS ARE PLANTED TO ATTRACT POLLINATOR SPECIES BY PROVIDING FOOD AND SHELTER. HAVING POLLINATORS NEAR YOUR GARDEN HELPS TO INCREASE YOUR GARDEN'S PRODUCTIVITY.

#### >FUN FACT9<



LA POLINIZACIÓN ES EL PROCESO QUE PERMITE QUE LAS PLANTAS SE REPRODUZCAN. ESTO OCURRE CUANDO EL POLEN ES TRANSFERIDO DE UNA PLANTA A OTRA POR EL VIENTO, LA LLUVIA O ESPECIES POLINIZADORAS COMO ABEJAS, MURCIÉLAGOS, COLIBRÍES, POLILLAS Y MARIPOSAS. LOS JARDINES POLINIZADORES SE PLANTAN PARA ATRAER A LAS ESPECIES POLINIZADORAS PROPORCIONÁNDOLES ALIMENTO Y REFUGIO. TENER POLINIZADORES CERCA DE SU JARDÍN AYUDA A AUMENTAR LA PRODUCTIVIDAD DEL MISMO.

#### > 3DATO CURBOSOS <

LA FORMA Y EL COLOR DE UNA FLOR CAMBIARÁN QUÉ POLINIZADORES LA VISITARÁN.

REGIONAL ENVIRONMENTAL COUNCIL www.recworcester.org





## What are native plants?







# What are invasive plants?





### Garlic Mustard







#### Coevolution of Plants and Insects



# Insect Specialists







Native oak trees support over 500 species of caterpillars

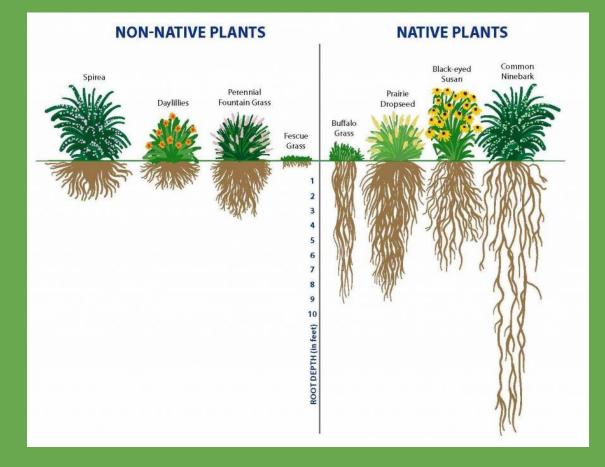
Ginkgo, a commonly planted landscape tree from Asia, hosts only 5 species of caterpillars



One brood of chickadees requires 6,000-9,000 caterpillars before it leaves the nest



### Native vs. Non-Native Plants



When we talk about rising temps, we often talk about the excess of carbon in the atmosphere. Plants trap and store carbon. The bigger the roots, the harder it is for them to get pulled, the better it is for our soils, and the more carbon gets trapped.

### Designing a Pollinator Garden with your Students





- Incorporate Native Plants (Native vs. Non Native)
- Something for the animals, and something for the humans
- When do our plants bloom? April to October
- Color and shape of plants
- Where is the garden going? What are the conditions?
- Latin Name vs. Cultivars



#### Dr. Gegear

- Pollen sources enable bees to make more bees
- Nectar sources provide fuel for adult bees and butterflies to be active
- Host plants give caterpillars (larval stage of butterflies) something to eat

### Lake View Elementary Park



#### September 2022

September 2023

Common Name	Latin Name
False Indigo	Baptisia australis
Butterfly Milkweed	Asclepias tuberosa
Cardinal Flower	Lobelia cardinalis
Yarrow	Achillea millefolium
Purple Coneflower (NOT NATIVE TO MA but fun in garden)	Echinacea Purpurea
Purple Milkweed	Asclepias purpurascens
Anise Hyssop	Agastache foeniculum
Wild Bergamot	Monarda fistulosa
Broad Leaved Mountain Mint	Pycanthemum muticum
New England Aster	Symphyotrichum novae-angliae

Note: Coneflower isn't native, but we like the look of it. In some of our gardens where we have raised beds this is also where we add things like sage, thyme, rhubarb and other perennial herbs that also might not be native.

#### \*We try and do lemon balm and mint in containers

### Sowing Seeds with Students

- Good winter activity
- Seed Eggs vs. Milk Jug method
- Cold stratification period







# Thanks!

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