



# Monarchs and More

Neighborhood Gardener: SW Library

April 9, 2026

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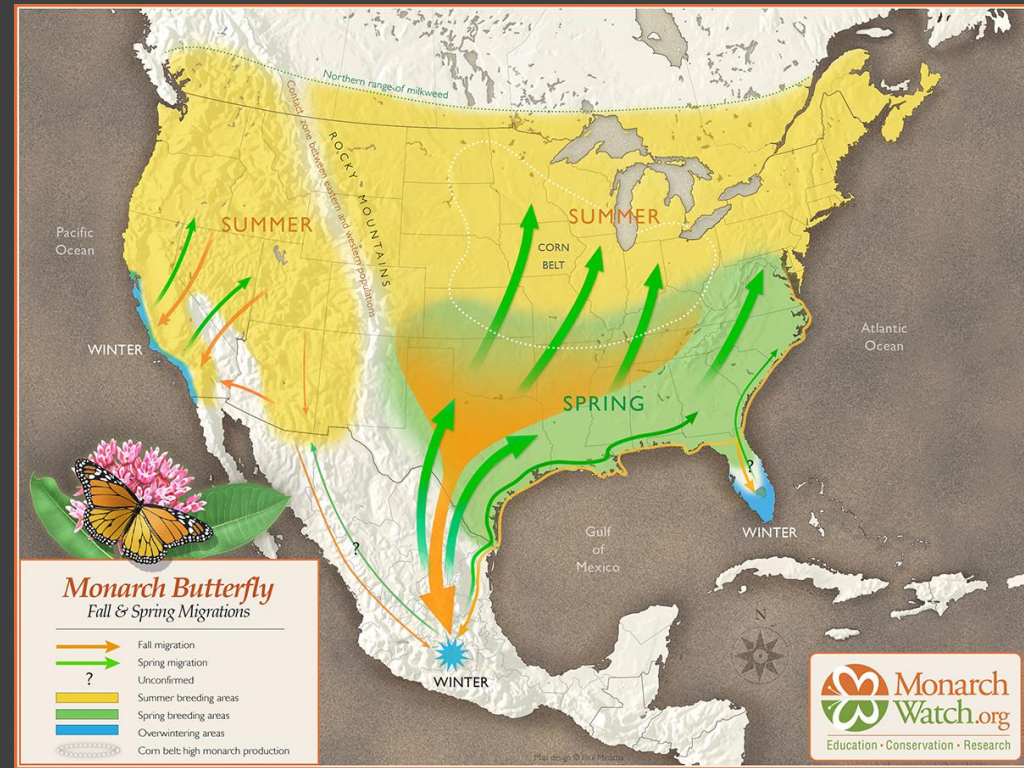
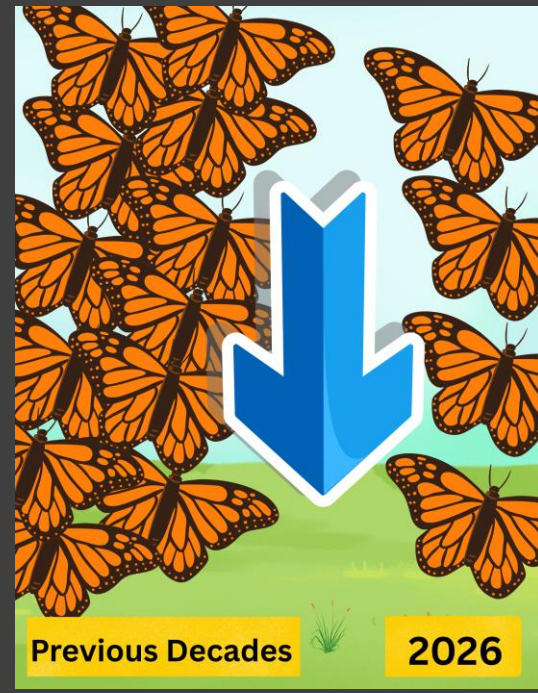


# Why are Monarchs important?

- 2 way migration
- Indicator species of large insect decline issue
- Single host plant Milkweed *Asclepias* spp.



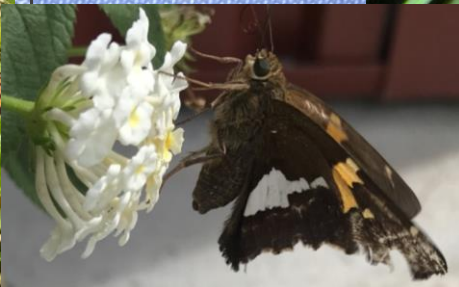
<https://www.scientificamerican.com/article/how-monarch-butterflies-evolved-to-eat-a-poisonous-plant/>



# What about other Pollinators?

- 90% of flowering plants require or benefit from pollination
- 33% of food crops require pollination
- Foundational food source for wildlife food web
  
- E. O. Wilson “If we were to wipe out insects alone on this planet, the rest of life and humanity with it would mostly disappear from the land. Within a few months.”





# Pollinator Vocabulary

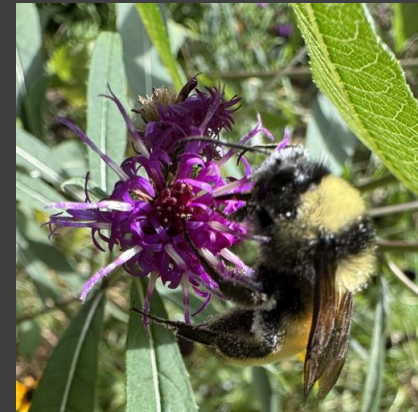
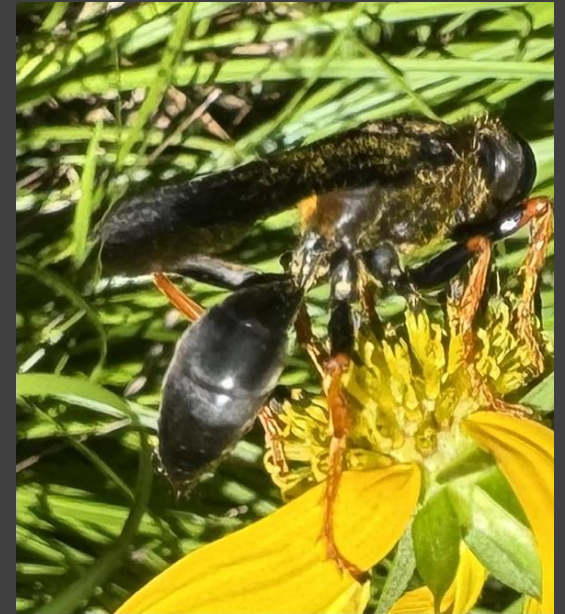
Pollinator Partnership, VA Native Plant Society, UC Ag and Natural Resources

- Pollen yellowish, dust-like powder that causes the fertilization of a flower's egg
- Pollination when pollen is moved from the male parts to the female parts of a flower, resulting in fertilization
- Pollinator an animal that carries pollen from the male parts of flowers to the female parts, resulting in fertilization
- Nectar sweet liquid produced by plants, usually located in the flowers, attracts and feeds pollinators
- Specialist bee a native bee species that relies exclusively or primarily on the pollen of a specific plant family, genus, or species. Bee larvae eat this pollen (only)
- Host plant a specific plant species that insects, particularly butterflies and moths, rely on for reproduction. Caterpillars eat this plant.
- Keystone species a species on which other species in an ecosystem largely depend, such that if it were removed the ecosystem would change drastically



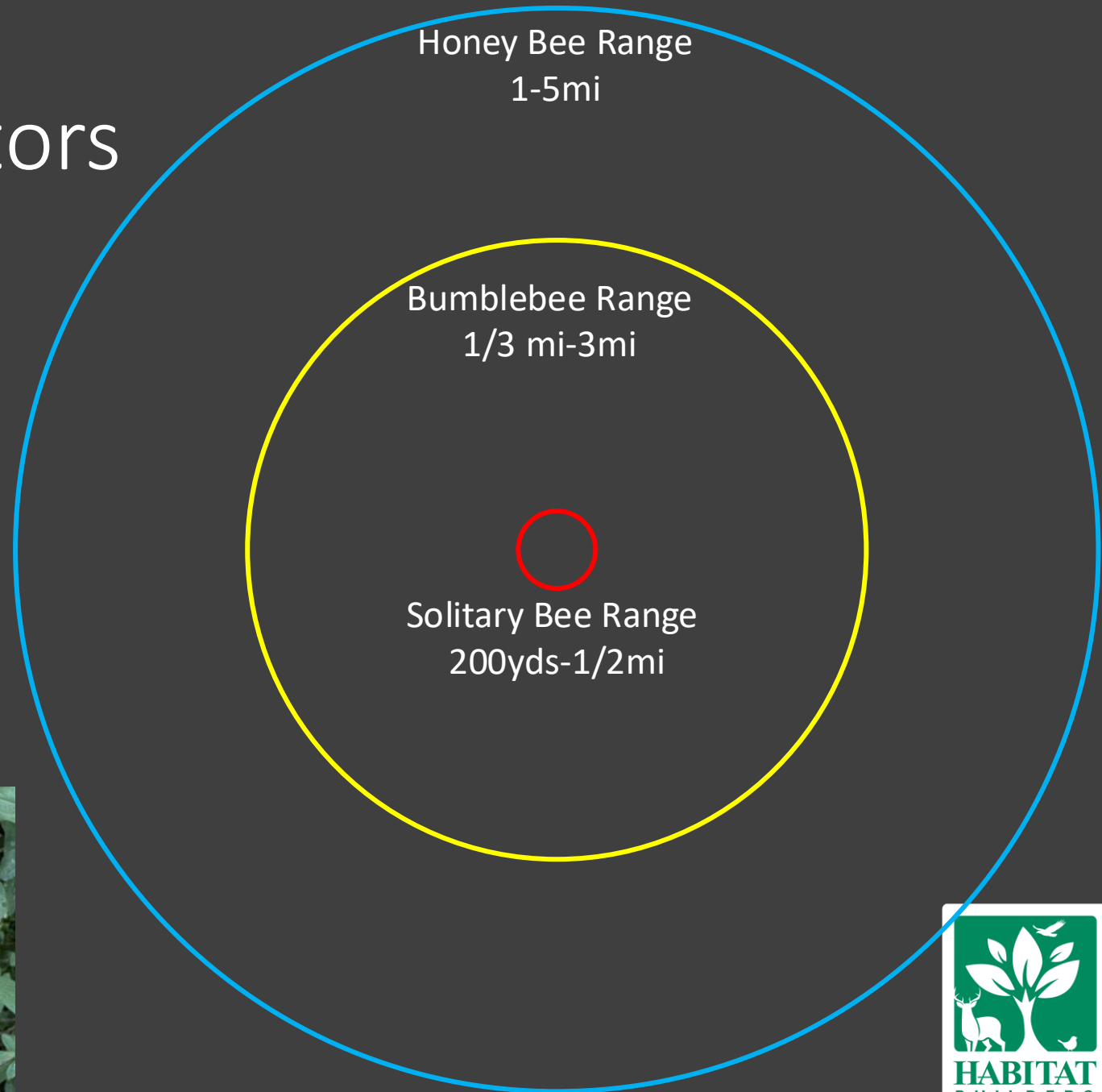
# Common NC Pollinators and Species Count

- Bees > 500 species (evolved from wasps)
- Wasps ~2000 species (like nectar and other insects)
- Butterflies 177 known species (evolved from moths)
- Moths ~3000 species (basically night butterflies)
- Other pollinators include Flies, Beetles, Birds, some mammals, wind



# Common NC Pollinators

- Bees are #1 pollinator
  - “Furry”
  - Native v honey
- One Honey Bee colony requires 1 acre of pollinator habitat so they don’t compete with natives



# Pollinator Support Group

- Water
- Shelter
- Protection
- Dark sky
- Food: host and nectar plants



# Best Flower Types for Pollinators

- Easy access
- No doubles
- Lots of clustered flowers



# Easy Pollinator Perennials for our Area

- *Rudbeckia* spp. Black eyed Susan, Cut-leaf Coneflower
- *Solidago* spp. Goldenrod
- *Eupatorium* spp. Boneset
- *Symphyotrichum* spp. Asters
- *Echinacea* spp. Purple Coneflower
- *Eutrochium* spp. Joe-Pye Weed
- *Asclepias* spp. Milkweed
- Best plant time: October-December, but Spring ok



# Easy Pollinator Trees for our Area

- *Liriodendron tulipifera* Tulip Poplar
- *Prunus serotina* Wild Black Cherry
- *Quercus* spp. Oak
- *Salix* spp. Willow
- *Cercis canadensis* Redbud
- *Acer* spp.
- Best plant time: October-February



# Easy Pollinator Vines for our Area

- *Passiflora incarnata* Passionflower
- *Gelsemium sempervirens* Carolina Jessamine
- *Lonicera sempervirens* Coral Honeysuckle
- *Bignonia capreolata* Crossvine
- *Parthenocissus quinquefolia* Virginia Creeper
- Best plant time: October-December, Spring ok



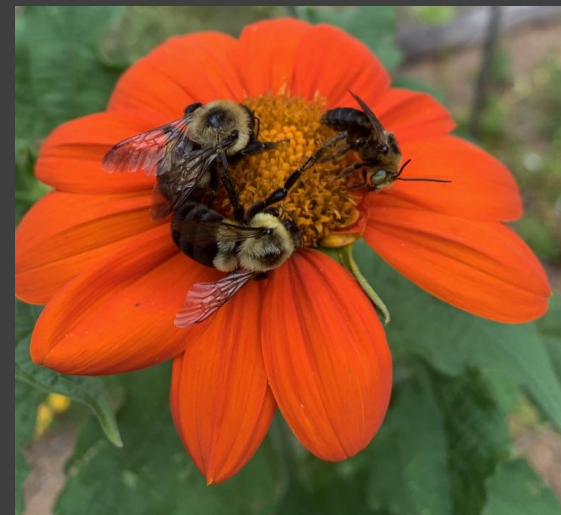
# Easy Pollinator Non-Native Heat Loving Plants for our Area

- Annuals

- *Tithonia*
- *Zinnia*
- Fill in new perennial beds
- Can direct sow seeds from April – July

- Perennials

- *Lantana* plant April-May (not Fall)
  - Some Lantana acts as an annual in NC, check the label
- *Verbena bonariensis* Plant in Fall or Spring



# Extending the Season Early: End Feb-April

- Perennials

- *Erigeron pulchellus* Robin's Plantain
- *Viola* spp. Violets
- *Salvia lyrata* Lyreleaf Sage,
- *Tradescantia* spp.
- *Zizia aptera*
- *Phlox subulata*
- *Columbine* spp.
- *Antennaria* spp. Pussy toes
- *Packera* spp.

- Ephemerals

- *Mertensia virginica* Virginia Bluebells
- *Claytonia virginica* Spring Beauty
- *Uvularia* spp. Bellwort





# Extending the Season Early: End Feb-April

- Vines
  - *Gelsemium sempervirens* Carolina Jessamine
  - *Lonicera sempervirens* Coral Honeysuckle
  - *Bignonia capreolata* Crossvine
- Trees/Shrubs
  - *Liriodendron tulipifera* Tulip Poplar
  - *Prunus serotina* Wild Black Cherry
  - *Quercus* spp. Oak
  - *Cercis canadensis* Redbud
  - *Salix* spp. Willow
  - *Amelanchier* spp. Serviceberry
  - *Vaccinium* spp.
  - *Rhododendron* various, native Azalea
  - *Viburnum* spp.
- Edgeworthia





# Extending the Season Late: August-October

- *Late Blooming Natives*

- *Rudbeckia* spp. Black eyed Susan,
- *Solidago* spp. Goldenrod
- *Eupatorium* spp. Boneset
- *Symphotrichum* spp. Asters
- *Vernonia* spp.
- *Conoclinium coelestinum* Blue Mist Flower

- Can Stand the Heat! Zinnia, Lantana, Solidago, Boneset
- Native v non-native




# Big Messages

- Diversity Wins: bloom time, bloom shape, color, height
- Choose plants that have lots of close flowers
- Single best plant? *Rudbeckia hirta*, *triloba* or *fulgida* (Black-eyed Susan) resilient
- Bees #1 Pollinator
- Every honey bee colony needs 1 acre of flowering plants to not compete with native bees
- Everyone needs water year around at various depths
- Some non-natives fill in the gaps




# Upcoming Events

- Moth Nights May-August
- Wrong Plant, Wrong Place: Invasive Plant ID and Removal, June 4
- Pollinator Week June 22-28, 2026
- Native Plants Made Easy, July 11
- Moth Week July 18-26, 2026
- Pollinator Census August 21, 22
- [www.habitatbuilders.org/calendar](http://www.habitatbuilders.org/calendar)



Home    Calendar    About    Volunteer


**May-August 2026 TBD**  
**830pm**  
**Moth Night**  
Hang out after dark and meet the late night pollinators...moths  
Marvin, NC  
Registration link coming soon



**June 4, 2026**  
**7pm-8pm**  
**Wrong Plant Wrong Place: Invasive Plant ID and Removal Methods**  
Learn how to identify and remove invasive plants  
Monroe, NC  
  
Registration link coming soon

**July 11, 2026**  
**2:30pm-3:30pm**  
**Native Plants Made Easy**  
Learn the benefits of adding native plants to your landscape  
Marvin, NC  
Registration link coming soon

**August 21, 22, 2026**  
**1pm-3pm each day**  
**Great Southeastern Pollinator Census**  
Join a giant Citizen Science project. Learn to identify pollinators and the plants they love.  
Various locations  
Registration link coming soon



# Pollinator Related Resources

- Publications/Guides

- NC State Extension Bees of NC ID Guide <https://content.ces.ncsu.edu/the-bees-of-north-carolina-identification-guide>
- Butterflies of NC <https://auth1.dpr.ncparks.gov/nbnc/a/accounts.php>
  - Checklist <https://auth1.dpr.ncparks.gov/nbnc/a/checklists.php>
- Moths of NC <https://auth1.dpr.ncparks.gov/moths/index.php>

- Books

- Anything by Heather Holm
- Anything by Doug Tallamy
- Peterson Guides, Kaufman Guides, National Audubon Guides
- *Bumble Bees of North America*, Williams, Thorp, Richardson & Colla
- *The Bees in Your Backyard*, Wilson and Carril

- Pollinator Focused Organizations (with LOADS of information)

- Pollinator Partnership <https://www.pollinator.org>
  - Pollinator Steward certification program <https://www.pollinator.org/psc>
- Great Southeast Pollinator Census <https://gsepc.org>
  - Certification Program <https://gsepc.org/course/>
- Xerces <https://www.xerces.org/>
- Bee City USA <https://beecityusa.org>
  - <https://beecityusa.org/very-specialist-bees-and-the-flowers-they-love/>
- NCWF <https://ncwf.org/>
  - Butterfly Highway <https://ncwf.org/habitat/butterfly-highway/>
  - Native Pollinator Plants <https://ncwf.org/habitat/native-pollinator-plants/>
  - Wild Bees <https://ncwf.org/blog/wild-bees-friends-not-foes/>
- NWF <https://www.nwf.org/>
  - Native Plant Finder <https://nativeplantfinder.nwf.org/>



# Pollinator Plant Related Resources

- Plant Related Sites

- NC Plant Toolbox <https://plants.ces.ncsu.edu/>
- NC Native Plant Society <https://ncwildflower.org/>
- SC Native Plant Society <https://scnps.org/>
- Lady Bird Johnson Wildflower Center <https://www.wildflower.org/>
  - Plant ID and growing info <https://www.wildflower.org/plants-main>

- Plant Sales

- UNCC 4/9-4/11, Fall Sale usually in October
- Wing Haven 4/16-18, Fall Sale usually in October
- Union County Master Gardeners 4/25 9a-12p
- SC Native Plant Society
- Other Extension Master Gardener programs (most counties have these programs)
- My Home Park <https://www.myhomepark.com/>
- Izel Plants <https://www.izelplants.com/>
- Carolina Heritage Nursery <https://www.facebook.com/CarolinaHeritageNativePlants>



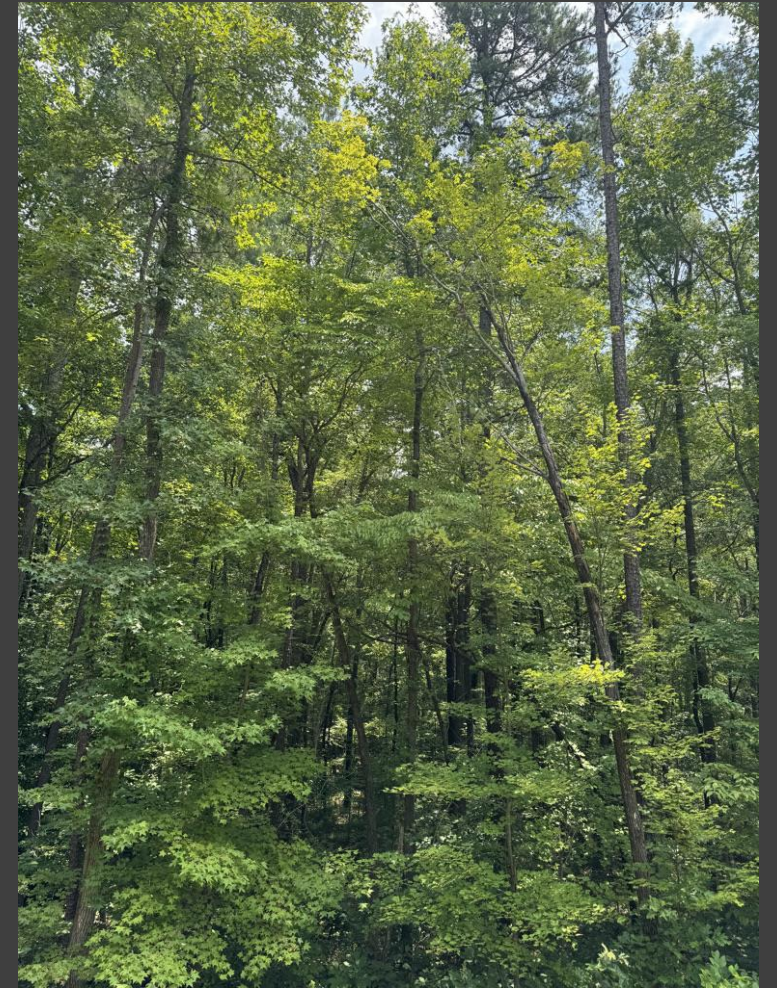
# Nature PSAs



Cats stay indoors



Outside Lights off at 10p



Feel Bad? Go Outside

# Every Pollinator Plant Matters YOU can make a difference by planting even one



One Plant



LOTS of Plants