# **Butterfly Gardening**

Presentation for the "Burlington Men's Garden Club"

March 28,017 Gail Moore

## Attracting Butterflies

- Butterflies are easy to attract into your garden landscape
- North Carolina has more than 175 butterfly species, some statewide, others within a specific region
- Butterfly watching has gained in popularity, though not nearly as much as bird watching
- National Butterfly Awareness Day, June 3<sup>rd</sup> first Saturday in June

## Attracting Butterflies

- They are colorful, diverse, and active during warm days
- They will thrive within a garden comprised of native plants in urban and rural settings
- Provide both plant types: nectar for adults and host for caterpillars
- Making a mud-puddling spot helps meet hydration and nutrient needs that nectar doesn't supply

# Puddling Question Mark



## How it Began

 My husband didn't like my garden outline

 So he redrew it to add his touch of whimsy

 I thought his cartoon would be too hard to maintain, so

it got overruled

#### How it Began

- But my traveling plants were so glad to finally get out of pots
- Lots of shoveling of compost and mulch
- Thankful for having a pickup to buy in bulk and unload close to site
- Continually evolving



# My Garden – First Year



June 2013



July 2013

#### Next Two Years



July 2014



June 2015

## Last Year, May 2016



#### My Stuff

- Amaranth
- Bee Balm
- Black-eyed Susan
- Butterfly Bushes
- Clematis
- Columbine
- Coral Bells
- Cosmos
- Daylilies
- Foxglove

- Hardy Hibiscus
- Impatiens
- Jasmine
- Liatris
- Lilac
- Marigolds
- Petunia
- Sweet William
- Trumpet Creeper
- Verbena
- Weigela

#### What Butterflies Eat

- Host plants provide shelter for butterfly eggs and food for growing caterpillars; most herbs are good host plants (parsley, dill, fennel) so plant a garden buffet
- Nectar plants produce various flowers that provide liquid food for adult butterflies
- If you only want to attract butterflies that are passing through, then nectar plants are all that's needed
- If you want to provide a garden where butterflies will return, then provide various host plants



#### AYCE Herb Buffet

- Fast work stripping the parsley
- They moved to the dill next
- Fun to watch and it all grew back

## Using Native Plants

- The relationship between butterflies and host plants is one reason having natives in the garden is so important
- Butterflies do most of their eating during their larval phase as caterpillars, feeding exclusively on the leaves of host plants specific to their species
- Plants have evolved to harbor chemical toxins in their leaves as a protection mechanism against hungry wildlife

## **Using Native Plants**

- Each butterfly species has evolved to be resistant to the toxins of a select number of plants
- Exotic plants (non-native) are not used by many butterflies as they have no resistance to an exotics toxins
- Using plants native to our area are easy to grow as they have adapted to our environment
- Choose a variety of nectar plants to provide food throughout the season

## **Using Native Plants**

- Provide plants with flowers of different size and depth to accommodate small and large butterflies
- Get trees, plants, and vines that do not need to be replaced each year
- Don't get discouraged if something doesn't work been there and will be there again
- Visit local gardens and nature centers for ideas, also lots of info online

#### Host Trees/Shrubs

- Birch (Betula)
- Cherry (Prunus)
- Crabapple (Malus)
- Highbush Blueberry (Vaccinium corymbosum)
- Huckleberry (Gaylussacia)
- Inkberry (Ilex glabra)
- Oaks (Quercus)
- Pawpaw (Asimina triloba)

- Pine (Pinus)
- Redbud (Cercis canadensis)
- Spicebush (Lindera benzoin)
- Sparkleberry (Vaccinium arboreum)
- Sumac (Rhus)
- Wax Myrtle (Myrica cerifera)
- Willow (Salix)

#### Host Herbs & Wildflowers

- Clover (Trifolium)
- Dill (Anethum graveolens)
- Fennel (Foeniculum vulgare)
- Goat's Beard (Aruncus dioicus)
- Goldenrod (Solidago)
- Joe Pye Weed (Eupatorium fistulosum)
- Lupine (Lupinus)
- Milkweed (Asclepias)
- Passion Flower (Passiflora incarnata)

- Parsley (Petroselinum crispum)
- Sunflower (Helianthus)
- Snapdragon (Antirrhinum majus)
- Tall Verbena (Verbena bonariensis)
- Violet (Viola)
- Wild Indigo (Baptisia tinctoria)
- Wild Petunia (Ruellia caroliniensis)

#### **Nectar Plants**

- Aster (Aster)
- Black-Eyed Susan (Rudbeckia hirta)
- Blazing Stars (Liatris)
- Butterfly Weed (Asclepias tuberosa)
- Coneflowers (Echinacea purpurea)
- Dianthus Family (Dianthus)
- Lantana (Lantana camara)
- Lupine (Lupinus)

- Mexican Sunflowers (Tithonia rotundifolia)
- Shasta Daisy (Leucanthemum)
- Swamp Milkweed (Asclepias incarnata)
- Salvia (Salvia)
- Sunflower (Helianthus)
- Swamp Milkweed (Asclepias incarnata)
- Yarrow (Achillea)
- Zinnia (Zinnia elegans)

#### Miss Huff

What I learned the hard way...



- Fantastic perennial
- Magnet attractor, grows fast, and constant showy flowers
- Research where you want to place this lantana, you might not be able to move it the next year

My 2016 replacement waiting for a location.

## Night Visitors Too!



- My new summer project
- Basically, position a blacklight or mercury vapor lamp to shine on a white sheet
- Another way to attract moths is to smear a bait mixture onto a tree trunk
- YouTube video:
   <a href="https://www.youtube.com/watch?v=elzZq3lUb6M">https://www.youtube.com/watch?v=elzZq3lUb6M</a>
- Moth Party:
  <a href="http://www.birdsandblooms.com/gardening/g">http://www.birdsandblooms.com/gardening/g</a>
  <a href="http://www.birdsandblooms.com/gardening/g">arden-bugs/throw-party-attract-moths/</a>

#### Tobacco Hornworm



## Do Butterflies "Sleep?"

Not really, they become inactive due to temperature



- Butterflies hang upside-down underneath something to hide for protection from evening rains and early morning birds
- Butterflies with warning coloration tend to sleep more in the open to signal birds that they might be poisonous
- Able to fly off if disturbed

## **Butterfly Weed**



- Butterfly Weed (*Asclepias tuberosa*), member of the milkweed family
- Favorite food for Monarch's
- Plants disappearing due to land development and spraying
- Nectar source for adult butterflies

## **Butterfly Milkweed**



- Pink Swamp Milkweed (Asclepias incarnata)
- The only food of Monarch caterpillars, as attracts Queens and Soldiers
- Unique bicolored white and pink flower heads
- Which Red Butterfly Do You Have? <a href="http://butterflies.heuristron.net/butterflies/redCompare.html">http://butterflies.heuristron.net/butterflies/redCompare.html</a>
- Does well in moist locations

#### Red Butterflies

Viceroy Butterfly



Monarch Butterfly



Queen Butterfly



Soldier Butterfly



#### Pest Management - Beware

- Minimal use, a caterpillar won't make it the adult stage using pesticides
- Bees won't make it either, even if spraying after hours
- Many stores are evolving to sell plants from growers NOT using Neonicotinoids (neonics)
- The pesticide is intended to remain active within the plant for a period of time

- Neonics (like imidacloprid)
   are a broad-spectrum
   systemic pesticide which
   flows throughout the entire
   plant
- These pesticides are contributing to Colony Collapse Disorder (CCD) in honeybees, and possibly other pollinators



#### Some NC Butterflies

- American Lady
- Common Buckeye
- Giant Swallowtail
- Golden Banded Skipper
- Gulf Fritillary
- Hackberry Emperor
- Monarch
- Painted Lady
- Queen
- Question Mark

- Silver-spotted Skipper
- Soldier
- Tawny Emperor
- Variegated Fritillary
- Viceroy
- Yucca Giant Skipper
- Zebra Swallowtail



# Eastern Tiger Swallowtail



# Painted Lady



# Monarch



# Variegated Fritillary



## **Sachems**

Male on Zinnia

Female on Lantana





# Hummingbird Moth (Clearwing)



# The End & Thank-You!

Questions?

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#### **Nurseries**

- Camellia Forest Nursery, west of Chapel Hill www.camforest.com
- Cure Nursery Native Plants, Pittsboro <u>curenursery.com/</u>
- Growing Wild Nursery
   www.growingwildnursery.com
- Niche Gardens, west of Chapel Hill www.nichegardens.com/

#### Nurseries

- Plant Delights, south of Raleigh www.plantdelights.com/
- The JC Raulston Arboretum at NC State, in Raleigh icra.ncsu.edu/
- The North Carolina Botanical Garden, in Chapel Hill <u>ncbg.unc.edu/</u>

#### Resources

- Altius Directory <u>www.altiusdirectory.com/Society/national-butterfly-awareness-day.html</u>
- Carolina Butterfly Society <u>carolinabutterflysociety.org/</u>
- National Butterfly Center <u>nationalbutterflycenter.org/</u>
- <u>charlotte.about.com/od/StateSymbols/a/The-State-Butterfly-of-North-Carolina.htm</u>
- content.ces.ncsu.edu/butterflies-in-your-backyard

#### Resources

- <u>www.charlottenaturemuseum.org/museum/exhibit/3/Butterfly-Pavilion</u>
- www.dpughphoto.com/common\_butterflies
- http://www.fs.fed.us/wildflowers/pollinators/Monarch\_Butterfl y/habitat/index.shtml
- <u>www.gardenswithwings.com/what-is-a-butterfly-garden/host-plants.html</u>
- www.thebutterflysite.com/northcarolina-butterflies.shtml

#### Resources

- millionpollinatorgardens.org/
- northcoastgardening.com/2015/02/nurseries-neonicotinoid/
- www.birdsandblooms.com/gardening/
- www.butterfliesandmoths.org/checklists?species type=o&tid=18 85
- www.butterflyhighway.org/native-plants
- www.carolinanature.com/