

Arboretum Brown Bag — Summer 2024 --- led by Gail Napora.

Plants for Pollinators

Hears and shared stories about plants participants know and pollinators they see at home and at the Edith J Carrier Arboretum. Some points of conversation are:

- Flowering plants all have pollen but not all have nectar;
- Bees use both pollen and nectar;
- Ruby Throated Hummingbird facts and behaviors;
- Nectar plants preferred by pollinators;
- Host and nectar plants for 23 local butterflies.

Conversation was hosted by Gail Napora, a Virginia Master Naturalist who has volunteered in educational events at the EJC Arboretum since 2007. A butterfly enthusiast, she does the monarch tagging event for them each year.



Outline Plants for Pollinators 2024

- 1) I am . . . VMN . . . in the community and at EJC since 2007
- 2) Today we'll share what we know or think about
 - a. Flowering plants
 - b. Bees use of pollen and nectar
 - c. Ruby Throated Hummingbird facts and behaviors
 - d. Nectar plants preferred by pollinators
 - e. Host and nectar plants for 23 local butterflies
- 3) Every flowering plant has pollen which is used to fertilize other plants in the production of seeds
 - a. Not all flowering plants have nectar, but pollinators prefer nectar so it attracts them and inadvertently causes them to fertilize other flowers. (Nectar is their energy — it is sugar:)
 - b. For bees, pollen is food for the larvae bees, while flower nectar becomes honey
 - c. How does pollen transfer? WAIT
 - a. by wind (corn, pine trees and shrubs),
 - b. by bats (but only in the US desert),
 - c. by birds and
 - d. by insects (80% of our food is pollinated by honeybees, but other bees, wasps, butterflies, moths, ants, and more bugs also pollinate)
 - d. What stories do you have about pollen and pollinators? WAIT
 - a. Buzz at the decorative cherry trees
 - b. Bumble bee nest in the ground
- 4) Birds as pollinators

Which is the only bird in the US that is a pollinator? WAIT
Only the Ruby Throated H'bird in VA, but others like Anna's Hummingbird, Bee Hummingbird, and Calliope Hummingbird (smallest bird in US).
I have 26 facts about the Ruby Throated Hummingbird in my list.
Who has some to share so we can get more than 26? WAIT

- a. Only the male has the red throat; juveniles develop red slowly
- b. H'birds live ~5 years
- c. RT Hummingbird migrates here in April, leaves in October so keep your feeders up through September (to feed stragglers migrating)
- d. Comes from (or to) Mexico or Central America
- e. H'birds remember their migration route
- f. Migrates 23 miles per day; ~ 57 hours total for about 2,000 miles
- g. To travel, it puts on an additional 25-40% of its body weight
- h. It flies by day, low in the sky so it can stop to rest, or to eat
- i. Flies 30 mph in direct flight, and 45 mph in courtship dives
- j. Its wings beat 70-90 beats per second in regular flight and 200 x/second in diving (courtship or fighting)
- k. H'birds can fly forward, backwards and UPSIDE DOWN
- l. Its heart beats just 225x min at rest (your heart stress test rate!) but it beats at 1200x min when flying!
- m. H'birds are the only vertebrate capable of HOVERING for a period of time in flight
- n. RT H'bird weighs as much as 1/4 tsp of sugar
- o. Consumes 1-2x its weight in nectar daily (about 2 fluid oz); most birds don't do nectar and only eat 1/4 to 1/2 their wt in foodstuff
- p. H'bird also eats bugs including aphids and wasps
- q. H'bird feeds every 10-15 minutes while 'awake'
- r. Visit 1,000-2,000 flowers each day; remembers every flower visited; anticipates how long it takes to regenerate nectar!
- s. H'birds are both antisocial and territorial (females on food sources can be especially mean to other females)
- t. H'bird has a big brain proportionally the largest for a bird at 4.2% (humans are just 2%)
- u. They can recognize humans (yes, they know you!)
- v. To rest they go into TORPOR which is a deep-deep-sleep like state that slows their metabolic functions (very vulnerable then)
- w. Body temperature is 105 degrees F (feathers are poor insulators)
- x. Females make a nest size of 1/2 walnut shell
- y. Eggs are size of a pea; only 2 eggs per brood; babies in nest ~3 weeks
- z. Preying mantis can kill a hummingbird (watch/move your feeders)

5. Plants for Pollinators

Anything that flowers, including trees, is a plant for pollinators

- a. It is crucial to provide both nectar plants and host plants; think of the host plants as “baby food” needed to result in the actual pollinators
- b. Turn to a neighbor and share your favorite nectar and pollinator plants
- c. Popular nectar plants that serve many pollinators include
 1. Bee balm
 2. Cat mint
 3. Clover
 4. Daisy
 5. Dandelion
 6. Fuchsia
 7. Hibiscus (including Rose of Sharon)
 8. Lavender
 9. Marigolds
 10. Pansy
 11. Sunflowers
 12. Thyme
 13. Zinnia
- d. Good host plants that serve more than one pollinator include
 1. Cherry trees
 2. Ash trees
 3. Willow trees
 4. Birch trees
 5. Tulip trees
 6. Oak trees
 7. Clover (in your grass!)
 8. Goldenrod feeds 82 caterpillars
 9. Strawberry plants feed 52 species
 10. Hibiscus plants and flowers feed 37 species
 11. Joe Pie weed feeds 31 species
- e. Hand out the card with plants list for butterflies

6. VA Butterflies

- a. There are more than 100 species of butterflies in VA, but here in the Valley there are 45 that are frequently seen; the remaining half may not have the temperature or food needed
- b. On my own property I have photographed more than 30 of the 45. My garden is haphazard which is actually helpful to the butterflies, and we have about 3 acres of woods which provide many host plants
- c. We will talk about 23 of the 30 in the time that remains (use pictures from VA butterflies book)

1	Cabbage White	mustard family	March-Oct
2	Red Admiral	nettles	March-Oct
3	Question Mark	nettle/elms	April-Aug
4	Zebra Swallowtail	paw-paw	April-Aug
5	Black Swallowtail	parsley family	April-Oct
6	Red Spotted Purple	trees/oaks	April-Oct
7	Spicebush Swallowtail	sassafras/spicebush	April-Oct
8	American Snout	hackberries	May-Aug
9	Eastern Comma	nettle/elms	May-Aug
10	Giant Swallowtail	citrus family	May-Aug
11	Eastern Tiger Swallowtail	trees/cherry	May-Sept
12	Gray Hairstreak	pea/mallow family	May-Sept
13	Hackberry Emperor	hackberry	May-Oct
14	Painted Lady	100 plants	May-Oct
15	Common Buckeye	plantain	May-Oct
16	Silvery Checkerspot	black-eyed Susan	June-July
17	Silvery Crescent	black-eyed Susan	June-July
18	Great Spangled Fritillary	violets	June-Aug
19	Tawny Emperor	hackberry	June-Aug
20	Monarch	milkweed family	June-Sept
21	Common Wood Nymph	grasses	June-Oct
22	Mourning Cloak	trees/hackberry	June-Nov
23	Cloudless Sulphur	cassias/senna	July-Aug

7. Thank you!