

Why Grow Natives?

- More than 30% of U.S. birds are endangered, threatened, or in significant decline
- "The State of the Birds: 2010 Report on Climate Change" USFWS
- In the last 20 years, the population of monarch butterflies in the eastern U.S. has declined by 90 percent
- Newsweek, Douglas Main 8/27/14
- Federal survey that found beekeepers lost more than 40 percent of their colonies last year
- Seth Borenstein, Associated Press May 19, 2015

Why is this Happening?

Invasive Species



*Habitat loss

Climate change



Growing Native Plants





Provides the right food sources for insect pollinators and birds

Ensures appropriate habitat for wildlife

Encourages biodiversity at all levels



Critical for a Healthy Food Web



Thermodynamic Research: UGa

Schramski JR, Gattie DK, Brown JH. Human domination of the biosphere: rapid discharge of the earth-space battery foretells the future of humankind. Proceedings of the National Academy of Sciences

- Estimate: Earth had 1,000 billion tons C in living biomass 2,000 years ago
- Now estimated to be ½ of that due to human activity
- *"If we don't reverse this trend, we'll eventually reach a point where the biomass battery discharges to a level at which Earth can no longer sustain us," Schramski said.

Wait! What's a Native Plant?

Native species are

those that occur

in the region in

which they evolved.



http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml#what





Today's talk will be about what I think are some great Natives for pollinators that will also fit in well with most gardens.

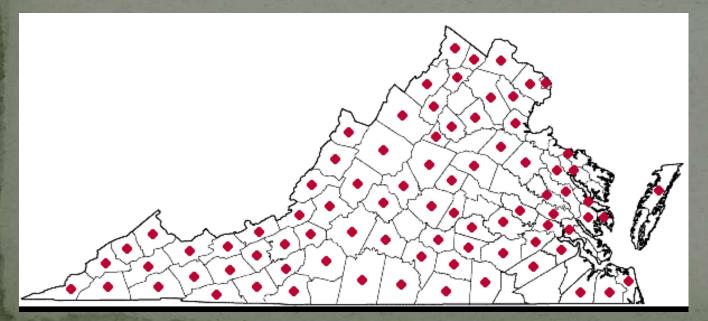
Due to time, I have focused on herbaceous perennials.

http://www.vaplantatlas.org/

Sneezeweed



Helenium autumnale L.





Criteria for my Favorites

- Attractive most of the time
- Plays well with others
- No princesses thrives on neglect
- Serves the greatest number

Eastern Columbine Aquilegia canadensis



Eastern Columbine

Family: Ranuculaceae or Buttercup

Life-cycle: short-lived perennial

Produces abundant seed, so only needs to be planted once







Eastern Columbine



- Widely adaptable
- Hummingbird magnet
- Not attractive to deer or rabbits
- Nectar for pollinators
- Easy to grow from seed

Growing It



❖Ideal site is humus rich, well drained soil under high light shade or morning sun

Tolerates full sun, drought, clay soil

Critical factor : good drainage

In the Garden

- Blooms anytime between late March and mid-April depending on site and weather; lasts for 2- 3 weeks
- Naturalizes beautifully in woodland settings
- Looks good with daffodils, spicebush, white azaleas, and serviceberry







Phlox

Moss rose, creeping phlox: Phlox subulata

Woodland creeping phlox: Phlox stolonifera

Woodland phlox: Phlox divaricata

Garden phlox: Phlox paniculata

Family: Polemoniaceae

- May develop powdery mildew in poorly chosen sites
- Bloom time covers late February (subulata) through September (paniculata)
- Great nectaries and also fragrant

Creeping Phlox (subulata)



Full Sun, Excellent Drainage



Got Shade?

- Humus rich soil
- Constant moisture- but not soggy!
- *Early morning sun or filtered shade



Creeping Woodland Phlox

Phlox stolonifera



Creeping Woodland Phlox

Phlox stolonifera



Woodland Phlox Phlox divaricata



Back to Full Sun



Garden Phlox

Phlox paniculata



Blooms July - September

- Deadhead for best bloom
- Plant mildewresistant cultivars
- Benefits from good soil fertility
- Fragrant



Also in dark colors



Dark colors attract butterflies, clearwing moths, and hummingbirds

'Red Magic'

For the moonlight Garden

Use white or pale varieties to attract hawk moths and sphinx moths at night





'David'

Golden Alexanders Zizia aurea



Blooms late April - May



Loves WET CLAY SOIL !!!



Family: Apiaceae = Parsley

Black Swallowtail







Yucca 'Color Guard'

Yucca filamentosa



- Family: Agavaceae
- Full sun, sharp drainage
- Likes potash

Intricate relationship with Yucca Moth





Birds will use threads for nesting material



Looks good coming out of winter



Beardtongue 'Husker Red'

Penstemon digitalis*



*experts are not certain if native to Virginia

Leaf color holds well all season



And mixes well in the garden



5 Weeks Later



Growing it

- Full sun, good drainage
- Raise pH to at
- least 6.0
- Drought tolerant
- Will produce new plants from seed

Early September



Eastern Beardtongue 'Maple Hill'

Penstemon laevigatus

- Full sun to partial shade
- Moist to wet soil

Larval host for

Common Buckeye Butterfly





Butterflyweed Asclepias tuberosa



Great Nectaries!



Growing it

- Full sun, sharp drainage
- Tolerant of drought and low fertility
- Asclepias aphids and sooty mold indicate poor drainage



Blooms from Seed the First Year



Will bloom through September if deadheaded

Milkweeds are ONLY host for Monarch Butterfly Larvae















Wet or Swampy Soil?





'Ice Ballet'

Swamp Milkweed Asclepias incarnata

Infertile Soils, Waste Places



Common Milkweed

Asclepias syriaca



Milkweed Seedpods







Asclepias currasavica Tropical Milkweed



This Milkweed DOESN'T Help

- Where this plant overwinters in the South it harbors a parasite that is putting a huge additional stress on a species of butterfly that is being considered for the T & E list.
- There is a possibility that Asclepias
 currassavica could overwinter in warmer parts
 of Virginia during mild years

article by scientists from the University of Georgia published in the *Proceedings of the Royal Society B*. The research, available online at

http://wsob.govalsocietypublishing.org/content/282/1301/20141734.full, was

was supported by the

National Science Foundation and the U.S. Forest Service.

Scarlet Hibiscus

Hibiscus coccineus



Growing it

- Grows 7' 9' tall
- Grows in good garden soil; extra water is a bonus
- Heavy Feeder
- Blooms July frost
- Japanese beetles can be a problem



Hummingbird Magnet



Butterflies & bees love it, too!

Loves Wet Clay Soil!





Too tall? Rosemallow to the rescue! Hibiscus moscheutos



Same Requirements, Same Issues



Luna Series is even smaller





Mistflower Conoclinum coelestinum



Daisy family: Asteraceae



How to Grow it

- Prefers high shade, moist soil, and average fertility
- Tolerates full sun (lots of mulch), clay and sandy soils
- Freely self-sows
- Great filler

Tiger Moth larva



Black-eyed Susan Rudbeckia fulgida 'Goldsturm'





Rudbeckias aka yellow coneflowers

- Poor dry soil is fine, drought tolerant
- Clay soils are ok, but some mildew is

possible: improve drainage

- Full sun unless otherwise noted
- Bee and butterfly attraction





Three Lobed Coneflower Rudbeckia triloba



Tolerates dry partial shade



Rudbeckia triloba

Weak perennial, but reseeds well

Works as herb layer among fairly

wide-spaced trees



Rudbeckia fulgida 'Goldsturm'



Earlier in the season!



Giant Coneflower Rudbeckia maxima



Prefers Moist Soils, Full Sun



Giant Coneflower

Switchgrass 'Shenandoah'

Panicum virgatum





Growing it

- 6 Hours Sun minimum
- Wet to Dry Soils
- Cut to Ground Level or Burn in mid-February

'North Wind'



Virtues of Switchgrass



- Great Winter Food for Birds
- Deep Root
 System adds
 Biomass and
 Mines Nutrients
- Good Cover for quail & other birds

`Prairie Sky'

New England Aster

Symphyotrichum novae-angliae







- Full sun, rich soil, high moisture
- Forms large clumps and seeds freely
- Blooms August September
- Tolerates clay soil



Solidago rugosa 'Fireworks' Goldenrod





Full sun, well drained moist soil, low fertility OK

DOES NOT cause hayfever!

Spreads by underground rhizomes to form large colonies



Wreath Goldenrod

Solidago caesia



Medium shade to partial sun

Tolerates dry soils, prefers moderate

Thrives in oak woods



