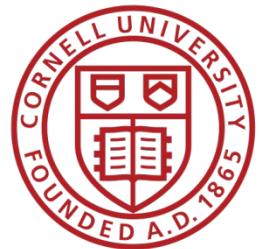


# Natives v. Nativars

Master Gardener Volunteer Training

August 10, 2024

Cornell Cooperative Extension  
Orange County



# Overview

- Important Terms
- More Important Terms
- Nativars
  - Woody Landscape Plants
  - Herbaceous Flowering Plants



# Important Terms

- **Native**
- **Nonnative**
- **Established** – a species having self-sustaining and reproducing populations in a specific geographic area without the need for human intervention.
- **Nuisance** – an individual or group of individuals of a species that causes management issues or property damage, presents a threat to public safety, or is an annoyance.

# Important Terms

- **Nonnative**
- **Invasive** – a species that
  - (a) is nonnative to a specified geographic area,
  - (b) was introduced by humans (intentionally or unintentionally), and
  - (c) does or can cause environmental or economic harm or harm to humans

# Important Terms

Native	Nonnative
Established	Established
Nuisance	Nuisance
	Invasive

# More Important Terms

- **cultivar** – a unique characteristic a species that is cultivated by humans & when reproduced, it retains its unique characteristic(s)
- **variety** – a unique characteristic of a species that is naturally occurring & when reproduced, it retain its unique characteristic(s)

# Nativars

- **Native** – a species that occurs naturally in a specific geographic area
- **Cultivar** – a unique characteristic a species that is cultivated by humans & when reproduced, it retains its unique characteristic(s)

**NATIVE + CULTIVAR = NATIVAR**

# Nativars

- **Red Maple** (*Acer rubrum*)



John Ruter, University of Georgia, Bugwood.org

# Nativars

- **Red Maple** (*Acer rubrum*)

‘Northwood’

‘Scarlet Sentinel’

‘October Brilliance’

‘Schlesingeri’

‘October Glory’

‘Shade King’

‘Redpointe’

‘Sun Valley’

‘Red Sunset’

‘V.J. Drake’

# Nativars

- **Red Maple** (*Acer rubrum* 'Brandywine')



1580056

John Ruter, University of Georgia, Bugwood.org

# Nativars

- **Purple Coneflower** (*Echinacea purpurea*)



# Nativars

- **Purple Coneflower** (*Echinacea purpurea* ‘*Pink Double Delight*’)

Double-flowered

Dwarf

Novelty color

Variegated



# Nativars

- **Purple Coneflower** (*Echinacea purpurea*)

‘Avalanche’

‘Green Envy’

‘Bright Star’

‘Kim’s Knee High’

‘Cotton Candy’

‘Lilliput’

‘Elton Knight’

‘Little Giant’

‘Fatal Attraction’

‘Milkshake’

# Benefits of Natives

- **beauty**
- **provide food and habitat for wildlife**
- **low maintenance**
- **rarely become a nuisance**
- **genetic diversity**

# **Benefits of Natives**

**Do nativars provide the same benefits  
as natives?**

# Nativars – Woody Landscape Plants

- **Compared native specie's wild types to cultivars**
  - Leaf color
  - Variegation
  - Fall Color
  - Habit
  - Disease Resistance
  - Fruit Size

# Nativars – Woody Landscape Plants

- **Compared native specie's wild types to cultivars**
  - Ability to support insect herbivore development
  - Abundance of insects
  - Diversity of insects

# Nativars – Woody Landscape Plants

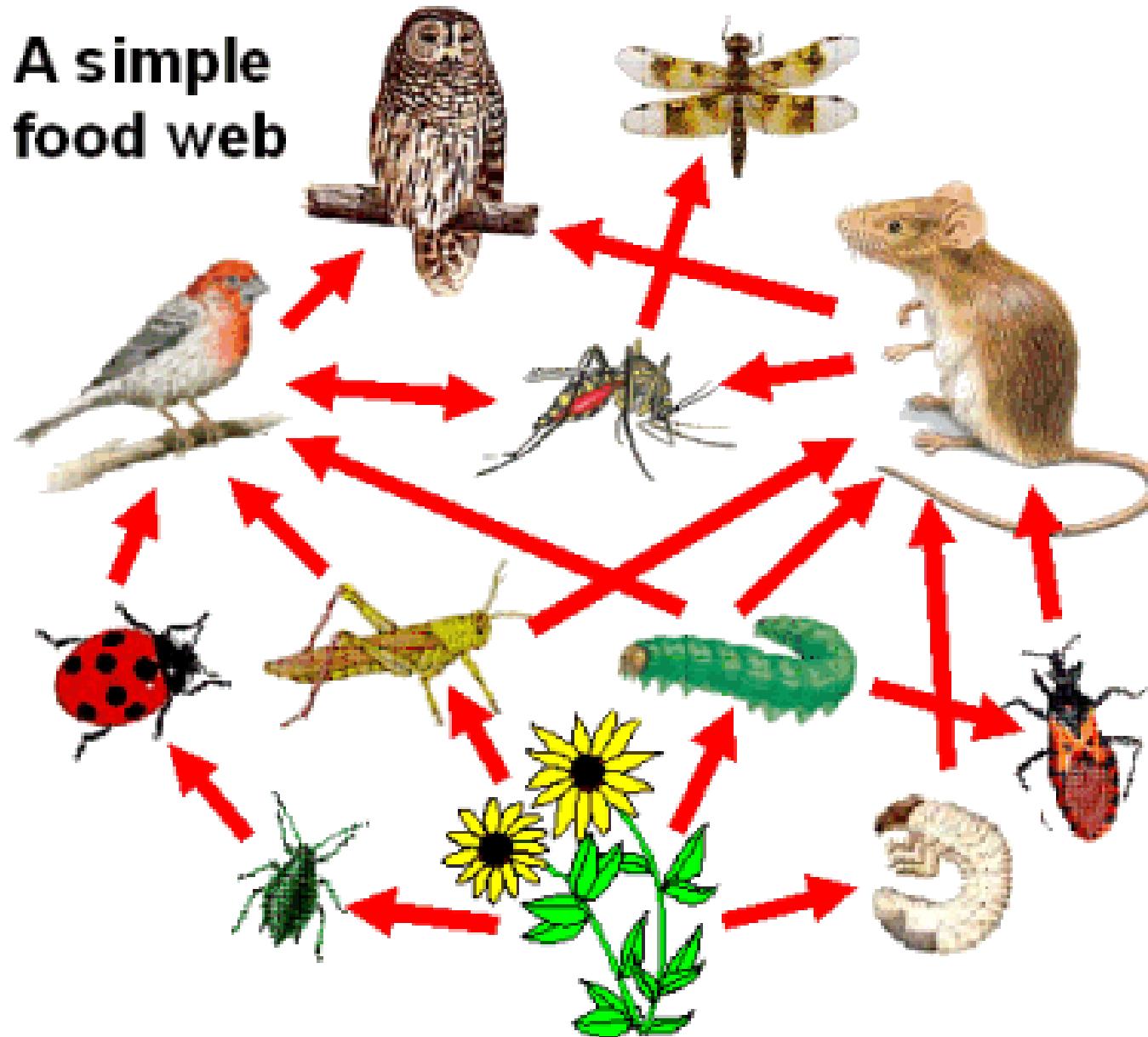
- **Compared native specie's wild types to cultivars**
  - Found leaves altered from green to red, blue, or purple deterred insect feeding

# **Nativars – Woody Landscape Plants**

- **Compared native specie's wild types to cultivars**
  - Insect herbivory is only one measure.

**Why Insects??**

## A simple food web



# Nativars – Herbaceous Flowering Plants

- Compared native species to cultivars
  - Insect pollination visits

# Nativars – Herbaceous Flowering Plants

- Compared native species to cultivars
  - Seven **native species** visited more frequently
  - Four **native species** were visited equally with **cultivar**
  - One **cultivar** was visited more frequently

# Nativars – Herbaceous Flowering Plants

- **Compared native species to cultivars**
  - Bees and moths/butterflies showed preference
  - Flies showed no preference

Native Species		Native Cultivars	
Benefits	Challenges	Benefits	Challenges
<p>Adapted to local soils &amp; climate conditions</p> <p>Preferred host plants for native insects and food source for native birds</p> <p>Promote biodiversity</p> <p>Promote conservation and stewardship of our natural heritage</p>	<p>Less predictable in the landscape</p> <p>Less uniform and in size/shape</p> <p>Aesthetic perception that they are “too wild” and “too weedy”</p> <p>Difficulty sourcing plant material</p>	<p>Unique ornamental traits (e.g. new flower or foliage color)</p> <p>More uniform in size/shape</p> <p>Some have more flowers and longer bloom times</p> <p>Easier to propagate</p>	<p>Loss of genetic diversity</p> <p>Less adapted to local soils &amp; climate</p> <p>May not be open-pollinated and will not self-seed</p> <p>May be less attractive and provide lower quality resources to pollinators</p>

Figure: A. White

# Natives versus Nativars

- **Woody plants** – less insect feeding on leaves altered from green to red, blue, or purple
- **Herbaceous flowering plants** – it depends

# **Natives versus Nativars**

- Native plants can be hard to find
- Native plants have greater genetic diversity!!
- Nativars can be bred to be resistant to disease

# Resources

- Baisden, E. et al. 2018. **Do Cultivars of Native Plants Support Insect Herbivores?** HortTechnology 28:5.  
<https://doi.org/10.21273/HORTTECH03957-18>
- **INTERVIEW: Natives and ‘Nativars’ with Doug Tallamy**  
A Way to Garden
- White. A. 2016. **From Nursery to Nature: Evaluating Native Herbaceous Flowering Plants Versus Native Cultivars for Pollinator Habitat Restoration.** U of Vermont Dissertation.  
<https://scholarworks.uvm.edu/graddis/626/>
- **VIDEO: How Native Plant Cultivars Affect Pollinators by Annie White**  
– Grow Native Massachusetts



# Questions?