EARLY SUCCESSIONAL HABITATS: THE PLANTS AND CRITTERS YOU’LL FIND IN YOUR WEEDY BACKYARD

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What is “succession” in ecological terms?

- The change in plant communities (species composition and structure) at a site over time.

- At each stage of succession, the plant community alters the soil and microclimate thus facilitating the establishment of the next group of plant species.
Two Types of Succession

• **Primary:** Establishment and development of plant communities occurs in a barren habitat with little or no soil at the beginning.

• **Secondary:** Development of biotic communities in a disturbed area where topsoil has been retained.
Primary Succession?

- Glaciation...

- Volcanic eruptions...
Secondary Succession?

- Old-field Abandonment...
- Fire... (wildland or prescribed)
- Mechanical clearing...
What is early successional habitat?

- Habitat with vigorously growing grasses, forbs, shrubs.

- Provides food and cover for specific types of wildlife.

- Requires disturbance to be maintained.
Early Successional Habitat

Secondary Succession

- **Pioneer Species**
  - Fire
  - 0 years
  - 1-2 years

- **Intermediate Species**
  - Annual plants
  - Grasses and perennials
  - Grasses, shrubs, pines, young oak and hickory
  - Mature oak and hickory forest
  - 3-4 years
  - 5-150 years
  - 150+ years

- **Climax Community**
Range of Early Successional Habitat in Virginia

- 0-1 year
- 1-2 years
- 2-4 years
- 4-6 years
Why is early successional habitat important?

- Represents and is comprised of remnant prairie flora and fauna.
- Increases regional biodiversity
- Important for Pollinators
- High quality early successional habitat is one of the rarest habitats in Virginia.
- Why?
How to create early successional habitat?
Active Habitat Creation
Cast of Characters?
Non-native Grasses

Tall Fescue (*Festuca arundinacea*)

Kentucky Bluegrass (*Poa pratensis*)
Non-Native Grasses

Timothy (*Phleum pratense*)

Orchard grass (*Dactylis glomerata*)
Broomsedge - Andropogon virginicus
Native “prairie” grasses

Little Bluestem (*Schizachyrium scoparium*)

Indian Grass (*Sorghastrum nutans*)
Herbaceous Species

Daisy Fleabanes (*Erigeron* spp.)

White Clover (*Trifolium repens*)
Herbaceous Species

Queen Anne’s Lace (*Daucus carota*)

Golden Ragwort (*Senecio aureus*)
Herbaceous Species

Blackeyed Susan (*Rudbeckia hirta*)

Common Milkweed (*Asclepias syriaca*)
Herbaceous Species

Butterfly Milkweed (*Asclepias tuberosa*)

Goldenrods (*Solidago spp.*)
Woody Species

Sumacs (*Rhus spp.*)

Shrubby St. Johns Wort (*Hypericum prolificum*)
Rare Woody Species

- Michaux’s Sumac (*Rhus michauxii*)
Insects-Pollinators

Butterflies (Monarch)

Bees
Swallowtails

- Large Butterfly
- Long Tail
- Slow graceful flight
Whites & Yellows

- Wide range in size
- Rapid, low flight
- Constantly on the move
Bees

Honey Bees

Bumble Bees
Bees

Carpenter Bees

Mason Bees
Reptiles

Black Rat Snake

Common Garter Snake
Reptiles

Box Turtle

Fence Lizard
Birds

Indigo Bunting

American Goldfinch
Birds

Carolina Wren

Towhee
Grassland Sparrows

Chipping Sparrow

Song Sparrow
Grassland Sparrows

Field Sparrow

Grasshopper Sparrow
Mammals-Small Fossorial

Meadow Vole

Short Tailed Shrew
Common Mammals
Resources - Field guides

Grasses: An Identification Guide
Lauren Brown

Wildflowers of the Eastern United States
Wilbur H. Duncan and Marion D. Duncan

Newcomb's Wildflower Guide
Lawrence Newcomb
Illustrated by Gordon Morrison
Resources - Field Guides

2. *Amphibians & Reptiles of the Carolinas and Virginia* by Mark D. H. Norris
3. *Mammals of North America* by Murray L. B. Storer
Selected Web Links

• Virginia Native Plant Society (http://vnps.org/)

• National Wildlife Federation Garden for Wildlife (http://www.nwf.org/Garden-For-Wildlife.aspx)

• Virginia Department of Game and Inland Fisheries (http://www.dgif.virginia.gov/habitat/)

• Virginia Department of Conservation and Recreation (http://www.dcr.virginia.gov/natural-heritage/nativeplants)
Questions?
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