

## **Integrating Forest and Wildlife Management**



**Master Tree Farmer 2002  
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### **What We'll Cover...**

- **The Basics**
- **Edge Management**
- **Timber Management**
- **Prescribed Fire**
- **Herbicides**
- **Dead Wood**

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### **Objectives?**

- **Where does wildlife rank in list?**
- **Wildlife management costs money.**
- **How much money to spend?**
- **What is my resource (soil, acreage, forest types, etc.)?**
- **What are my target species?**

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**Management Plan**

- Designed to meet objectives
- Consistent guidelines
- Maps and (projections)
- Forestry Consultant and State Biologist
- Forest Stewardship Program

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**Basic Needs**

- Food (Quantity and Quality)
- Water (Usually available)
- **Cover**  
– often limiting factor
- Distributed across your property



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***NO single forest stand can provide quality habitat for all wildlife species!!***

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***Food Plot Management Does  
Not Equal Wildlife  
Management!!***

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**Native Plants**

- Native animals adapted to native plants
- Many exotics become invasive and replace important natives
- Wildlifers lead the search for the silver bullet
- Must think long term



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**Two Basic Principles**

- **Plant Diversity = Wildlife Diversity**
- **Structural Diversity = Wildlife Diversity**
  - vertical
  - horizontal

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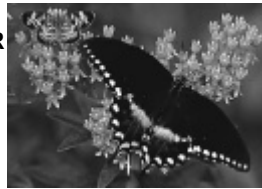
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## **Plant Diversity**

- Butterfly larva are host plant specific
- Manage for Ferns, Vines, Shrubs, Grasses, Trees
- High plant diversity
  - presence of BUFFER foods
  - *SEASONALITY*



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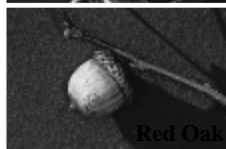
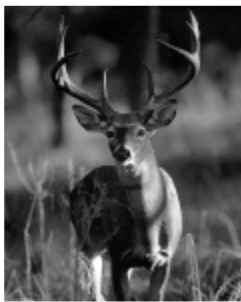
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## **Buffer Foods**



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## **Seasonality**

- Mulberry in Spring
- Black Cherry in Fall
- Holly in Winter



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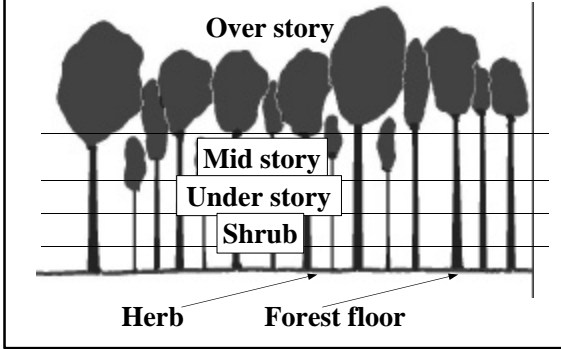
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### Vertical Structure



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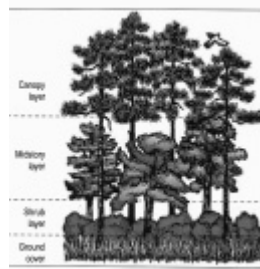
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### Vertical Structure

- Birds segregate vertically
- ↑ shrub cover
- Ground/shrub cover important for many wildlife (Gravity)
  - deer, quail, rabbits



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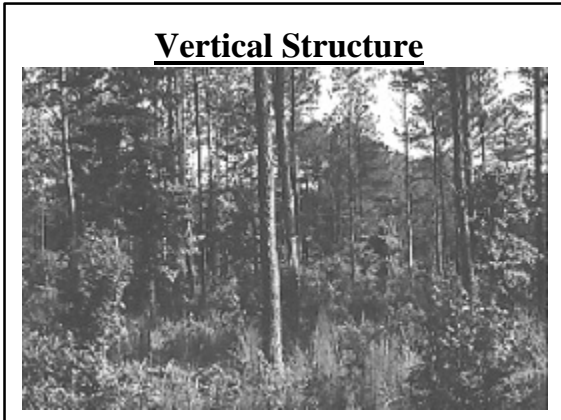
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### Vertical Structure



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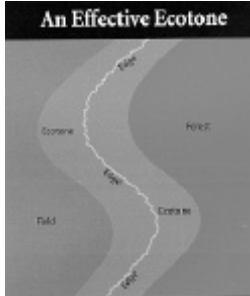
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## Horizontal Structure



- Edges = horizontal structure
- Access to 2 Habitats
- Unique conditions
- High vertical structure

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## Edges & Predators

- May concentrate travel along edges
- More prey?
- Reduced nesting success



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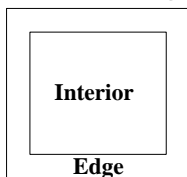
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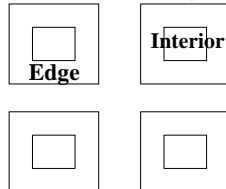
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## Small Stands

3,600 Ft<sup>2</sup> of edge



6,400 Ft<sup>2</sup> of edge



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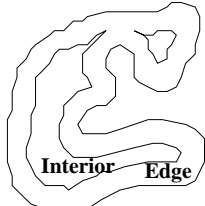
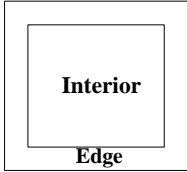
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## Irregularly-shaped Stands

3,600 Ft<sup>2</sup> of edge



6,000 Ft<sup>2</sup> of edge

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## Edge Management

- Thin timber more heavily near edge
- Disk 30-50 ft. strips at stand edges
- Disk every 1-3 years
- Fire breaks
- Logging Roads
  - Daylight roads



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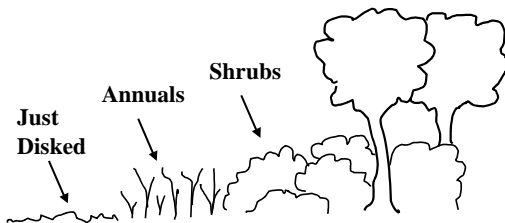
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## Feathered Edge



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### Timing of Disking

Ragweed



- **Spring disking**
  - grasses (panic grass)
- **Summer disking**
  - variety of vegetation
- **Fall/Winter disking**
  - heavy seeds (ragweed, doveweed, partridge pea)

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### Timber Management

- **A Wildlife Manager's BEST tool**
  - Forest harvest and regeneration
  - Site preparation
  - Intermediate stand treatments
  - Other practices
- **Before any silvicultural practices are conducted, special habitat components should be inventoried and protected**

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### "Unique" or Special Habitats

- **Vernal Ponds**
- **Wetlands (shallow water)**
- **Old Home Sites**
- **Oak Groves**
- **Blackberry thickets**
- **Rock outcrops**



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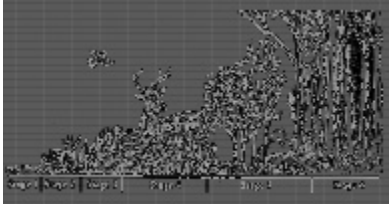
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## Succession

- Different animals prefer different forest ages



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## Timber Harvest/Regeneration

- Even-aged Systems
  - Clearcut
  - Shelterwood/Seed Tree
- Uneven-aged Systems
  - Group selection
  - Single-tree selection

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## Clearcuts

- Benefits many game species
- Benefits many songbirds/rodents
- COVER
- Abundant seed & fruit
- Irregular shape ↑s edge
- Keep most <50 acres



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### Shelterwood/Seed Tree

- Wildlife benefits similar to clearcuts
- Same guidelines as clearcutting for size, shape, and arrangement of harvests
- Maintains canopy
  - mast trees
  - raptor perches



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### Group Selection

- 'Miniature clearcuts' (1 - 2 acres)
- Increases edge, plant diversity & vertical structure
- High wildlife diversity
- Maintains canopy
- Maintains mast
- Use in SMZs



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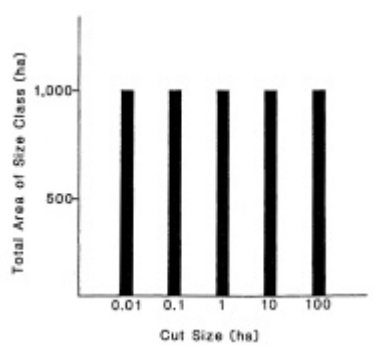
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### Optimal Area Distribution by Cut Size



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