

Creating a Wildlife-Friendly Landscape



The Woods in Your Backyard Workshop

What We'll Cover Today

- Elements of wildlife habitat management
- Creating or enhancing habitat elements
- Attracting wildlife to your property
- Planning your own wildlife enhancements



Messy is Okay!

- Natural areas will increase habitat
- New natural areas will attract wildlife that will increase wildlife-human conflicts (i.e. deer)
- Don't mow under trees or remove understory vegetation.



Wildlife/Human Interaction



www.lincolne.com

Where to Start??



The Basics Understand Size Requirements

- Grassland and forest interior species need BIG habitat blocks (10's to 1000's of ac)
- Young forest species
- Smaller properties can provide connectivity and habitat diversity



The Basics

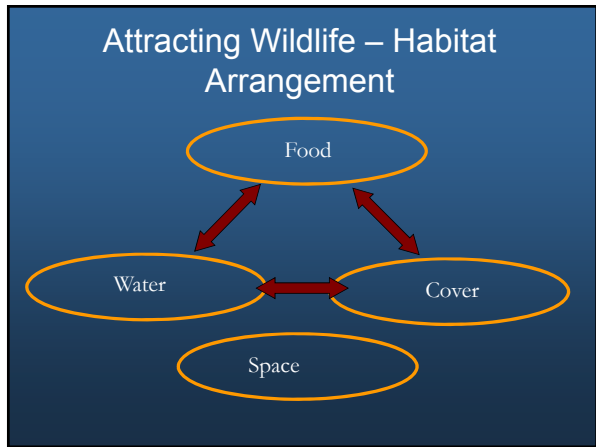
Understand Size Requirements

- Woodland, edge and 'successional' species can use smaller, more diverse habitat blocks
- Migratory birds use any good habitat as 'stopover' habitat
 - Forest interior bird
 - Young forest species

Magnolia Warbler
Dendroica magnolia

Map by Cornell Lab of Ornithology
Range data by NatureServe

Understand Habitat Requirements



Focus on Wildlife Habitat Elements

What is limiting?

- Cover** – caves & ledges; cavity trees; snags, tree tops; dense vegetation
- Food** – hard & soft mast; wolf trees; apple trees; food plots
- Water** – wetlands; riparian zones; spring seeps
- Space** – all elements in home range; landscape features present;

Providing and Enhancing Habitat Elements

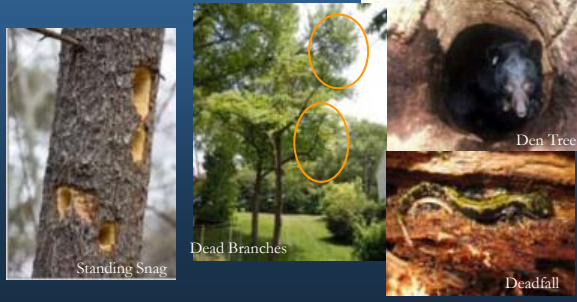
- ▶ Mast trees (produce edible fruits/nuts)
- ▶ Rocks (cliffs, outcroppings, piles)
- ▶ Snags (dead standing trees)
- ▶ Water (stream, pond, wetland, spring)
- ▶ Wolf trees (large, spreading, in the open)

Attracting Wildlife – Mast Trees

- Oak, hickory, walnut, beech
- Cherry, crabapple, hackberry,

Attracting Wildlife – Habitat Features

Wildlife Love Dead Wood!



Providing and Enhancing Habitat Elements

To increase the amount and/or variety of wildlife you host

- Brush piles
- Dense thicket
- Edge
- Forest openings



Building a Brush Pile

- Base - logs, rocks, fence posts – anything you have around
- 6" openings
- Top - finer brush and branches
- Near water and other habitat features



Attracting Wildlife – Habitat Elements



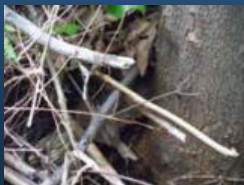
Create dense thickets

- Allow brush to develop in understory
- Only mow those areas that you need

Attracting Wildlife – Habitat Elements

Brush Piles

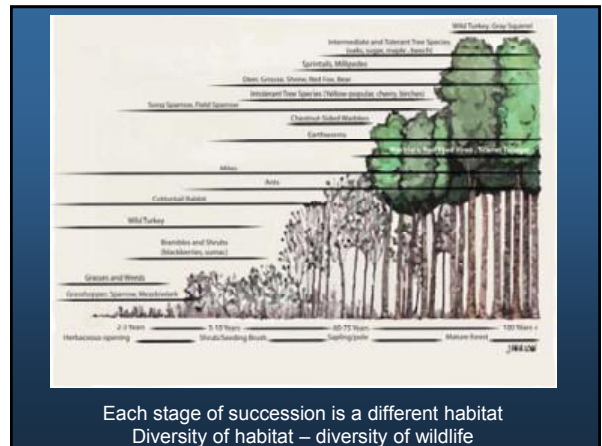
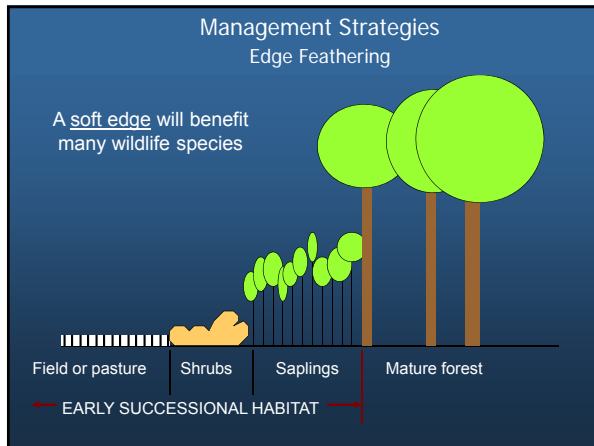
- Cover
- Nest Sites
- Loafing



Attracting Wildlife Understand Edge Effect

- Interface between two or more cover types
- Zones of high wildlife activity





Each stage of succession is a different habitat
Diversity of habitat – diversity of wildlife

Attracting Wildlife - Field Borders

- 50'-100' border strips provide cover & food
 - Between normal crop production or lawn and forest
 - Create on forest side or field side
 - Little reduction in productivity
 - Can easily be returned to production

The diagram shows two field layouts, labeled 'a.' and 'b.'. Both show a field with a border strip. A legend indicates that the light brown area represents 'Row crops' and the dark brown area represents 'Field border'. In layout 'a.', the border strip is on the left side of the field. In layout 'b.', the border strip is on the right side.

Managing & Creating Edge

This section contains two photographs. The top photograph shows a field with a dense line of trees and shrubs along its edge. The bottom photograph shows a forest edge with a large pile of cut logs and branches, illustrating a managed edge habitat.

Create Edge Habitat in Fields

Mow every 3 years in strips - habitat for turkeys, quail, etc

This section includes four photographs. The top-left photo shows a field with mowed strips of tall grass. The top-right photo shows a field with a dense line of trees. The bottom-left photo is a close-up of a bird's nest in a grassy area. The bottom-right photo shows a person standing in a field, likely managing the habitat.

Habitat Requirements Nesting Habitat

Large blocks / wide buffers are best

Nest at base of "bunch grasses"

The photograph shows a field with a large area of tall, dry grass. A red arrow points to a nest located at the base of a 'bunch grasses'. Another red arrow points to a large block of grass with a wide buffer zone. A small inset photograph shows a person in a field.

Attracting Wildlife – Habitat Features



Water is a Huge Draw – especially running water



Maintain Existing Old Field Succession

- Many existing old fields can be maintained by killing trees that establish themselves. Provides unique habitat



Habitat Changes with the Season!



Abundance & Home Range of Common Eastern Wildlife

Animal	Abundance	Home Range
Robin		1320' around nest
Black Bear	~70 per 100 sq mi	Female: 6-19 sq mi Male: 60-100 sq mi
Chipmunk	2-4 per acre	0.5 acre
Rabbit	Several per acre	10-25 acres
Raccoon	~1 per 10 acres	380-1150 acres
Red fox	~1 per 100 acres	640-1280 acres
Skunk	Up to 31 per sq mi	160-320 acres
Squirrel	1-5 per acre	Up to 10 acres
Turkey	10-100 per 1000 acres	600-1000 acres

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Attracting Wildlife – Stay on Top of Invasives

- Always control invasives first
- Fill in behind with natives or encourage natives to grow
- Requires ongoing maintenance



Japanese Honeysuckle



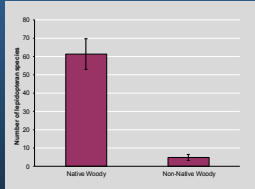
English Ivy

Common Lawn & Pasture Invasives

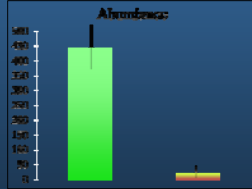


Native Plants Just Produce More Food for Wildlife

From: *Bringing Nature Home*
Doug Tallamy



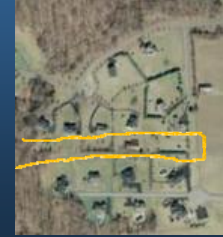
Many more caterpillar species on native woody plant genera in the mid-Atlantic states



Uninvaded Invaded
22 times fewer caterpillars in the invaded hedgerows

Attracting Wildlife – Think Connectivity

- Wildlife need connected habitats to safely disperse, breed, forage, maintain genetic diversity - survive
- Stream corridors are ideal
- Small properties can buffer larger blocks of habitat



Attracting Wildlife - Create New Habitat

Plant native trees that are good for wildlife – think flowers, berries, fruits or nuts

- Dogwoods
- Hollies
- Spicebush
- Sumac
- Serviceberry (early spring berries for migrant birds!)
- Viburnums (deer resistant!)
- Oaks, Hickories, Walnuts
- Black Gum



Build onto existing forest and stream corridors



Attracting Wildlife - Create New Habitat

Encourage Natural Tree Recruitment

- Park the mower
- Allow new trees to come up in natural areas

Convert Lawn to Natural Cover

- Even small areas can attract lots of wildlife



Attracting Wildlife - Create New Habitat

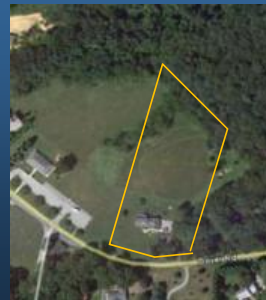
Create Habitat Islands

- Adds diversity of niches
- Provides escape cover



Attracting Wildlife

Variety of options exist for lawn or field conversion.



Keep or Create Snags

- Most woodlots have them – keep them around
- Can create snags if they are under-represented:
 - Mechanical girdling –at least ½" groove for small trees, 1-1.5" groove for larger trees; or
 - Herbicides



Local Application of Herbicide Effective

Cut Stump



Hack 'n Squirt



50% mixture of Roundup, Garlon, 2,4, D. Use a good ax



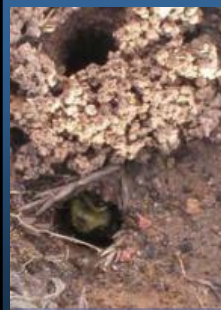
Attracting Wildlife - Pollinator Habitat

Pollinators Need:

- A diversity of native plants that flower all season
- A place to nest and lay eggs nearby
- Maintain old field areas



Pollinator Nest Types



Faced east into the morning sun



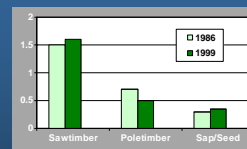
70% of native bees nest in the ground – 30% nest in wood

What should you Manage for?

- Landscape perspective + your own interests will help you determine what types of wildlife to manage for
- Easier to manage for habitat than individual species
- Cannot manage for everything
- Avoid attracting deer!

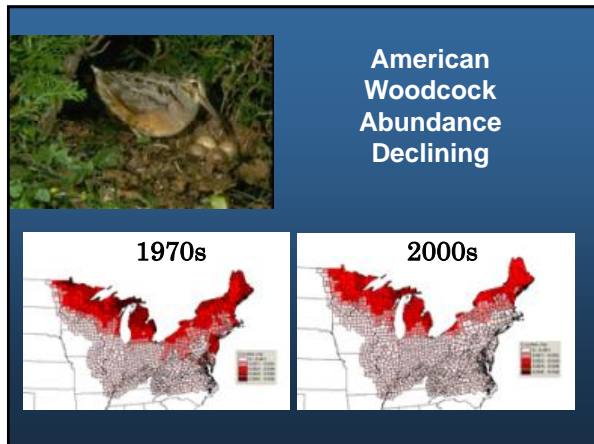


Young Forest Structure Declining



- ▶ Forest maturation/natural plant succession
- ▶ Decline in farmland abandonment
- ▶ Increased suppression of wildfires
- ▶ Impact of invasive plant species





Cooperate with your Neighbors

Together you can provide more habitat niches, larger blocks of habitat and increased connectivity

Create A Plan

- Draw a Map with habitat areas
- Determine habitat needs of groups of species you are interested in.
- Identify some projects that will change the habitat

How would wildlife change on these properties?

Keeping Wildlife Safe

Keep cats indoors!
 outdoor and feral cats kill 100's of millions of birds and billions of small mammals each year

They are NOT a natural predator

For more information: www.abcbirds.org

Enhancing Recreation & Aesthetics

Creating a Trail or Road

- Visually interesting and variable terrain
- Follow natural contours and meander
- Use BMP's to reduce erosion potential
- Lay it out first with ribbon and then adjust before cutting



Build The Trail and Tell The Tale

- Access
- Sanctuary
- Campfire or camping areas
- Wildlife viewing areas
- Aesthetically pleasing areas



Trail Design for Small Properties, University of Minnesota publication

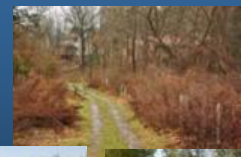


Privacy and Shade

- Vegetation visual & acoustic buffers
 - Vegetation performs poorly as an acoustic buffers
- Shade can significantly reduce
 - temperature (10-15 degrees)
 - cooling costs (10-80%)
- Shade can direct/block cooling breezes



Trees, Old Fields, Privacy Screens



activity 12
How Could You Improve Your Natural Area's Aesthetic Appeal?

Management goal	Notes	Wildlife and habitat	Recreation	Aesthetics
1	no	Large old and young trees. Many trees provide habitat for wildlife. Lack of ground vegetation due to deer browsing.	Small footpaths for hikers and hounds. No utility trails. Rubber mats on trails.	Good view of water. Older utility lines. Edge between water and woods is hard to look over. Includes trees and shrubs that flower and have great fall color or provide soft edge along trail.
2	no	Young trees in early succession. Better as canopy closes and ground vegetation develops.	Small footpaths. Many deer trails.	Shady for water. Many open trees.
3	no	Cluster of well spaced trees of different heights and species. Some trees have large shade along trail. Other trees are open woodlands and other birds.	Small footpaths. Many deer trails.	Large trees are present and provide lots of canopy cover. Some shrubs and small trees with open canopy provide for a natural fence for wildlife.
4	no	Edge of woods is a small area of open woods with few trees. Some of the trees are old. Tall shrubs and trees are growing along the edge.	Use the open area for trails. Use old logs and stumps for trails. Use old logs and stumps for trails. Use old logs and stumps for trails.	Shrub in grass. Full view mostly. Full view mostly. Full view mostly. Full view mostly.
5	no	no	Trail paths with logs and stumps.	Open grassy area with logs and stumps. Plant some of stumps to trees for more privacy.

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Workbook

Wildlife Recreation & Aesthetics

Add comments you may have

Questions???

