

Promoting Wildlife Diversity in your Woodlot



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Introduction

- Importance of private woodlots in southeastern Ontario
- Habitat for wildlife
- Silvicultural methods:
 - Selection
 - Group selection
 - Shelterwood



A photograph of a forest with a yellow logging machine in the background. The forest floor is covered with fallen leaves and logs. Several text boxes are overlaid on the image, highlighting key aspects of forest management.

Diversity

Structure

**Good
silviculture**

**Supercanopy
trees**

**Sensitive
habitats**

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Diversity

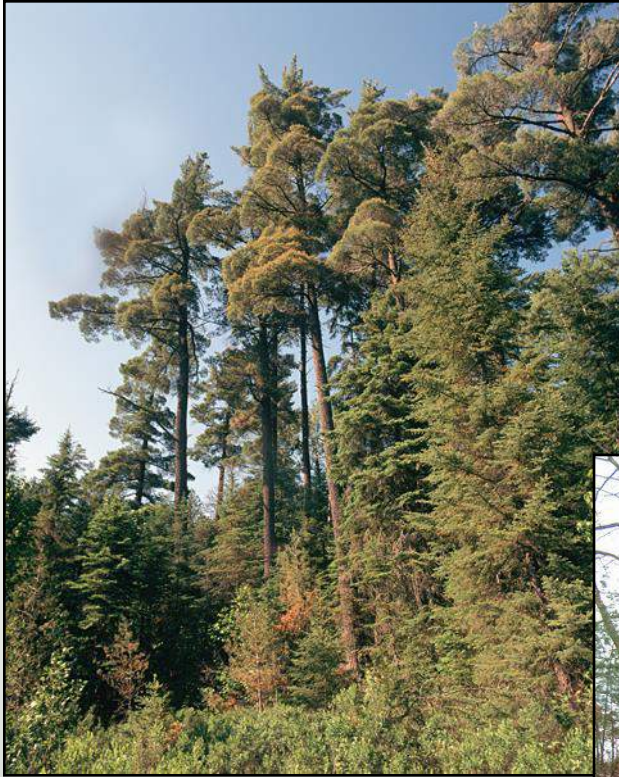
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Do it right!



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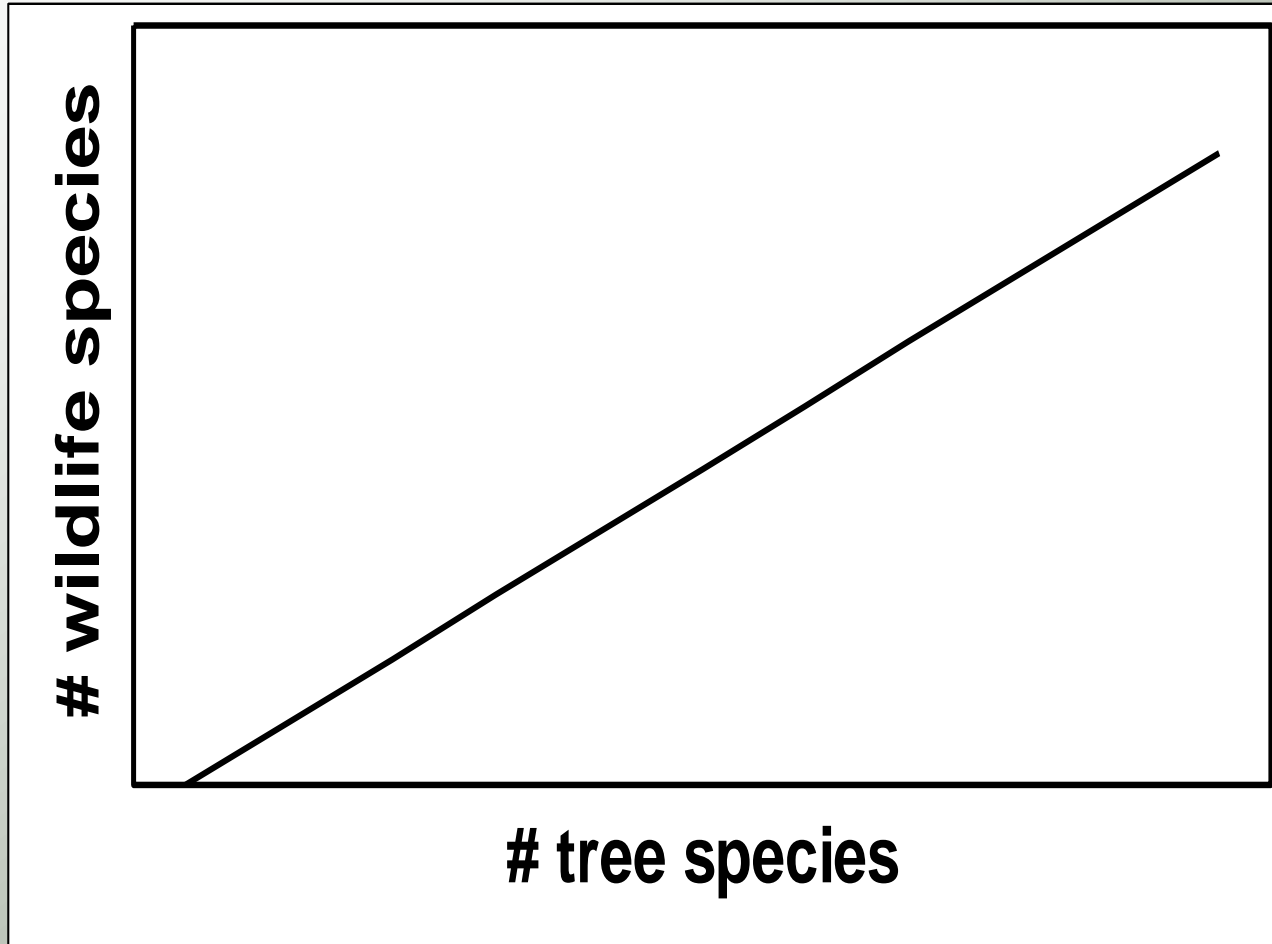
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Diversity is the spice of life



Keep it natural

Diversity in species and structure

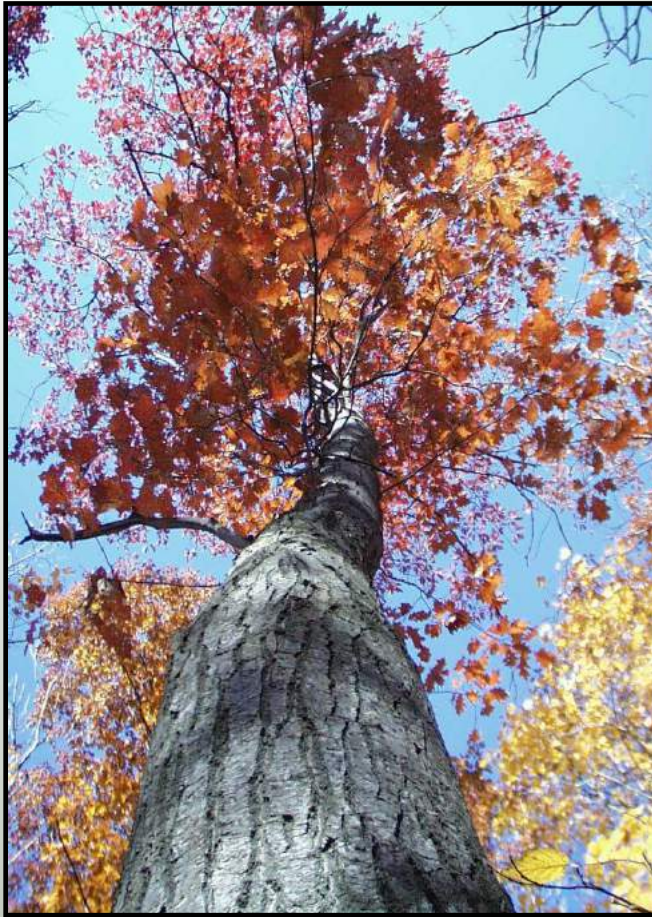


Tree species diversity

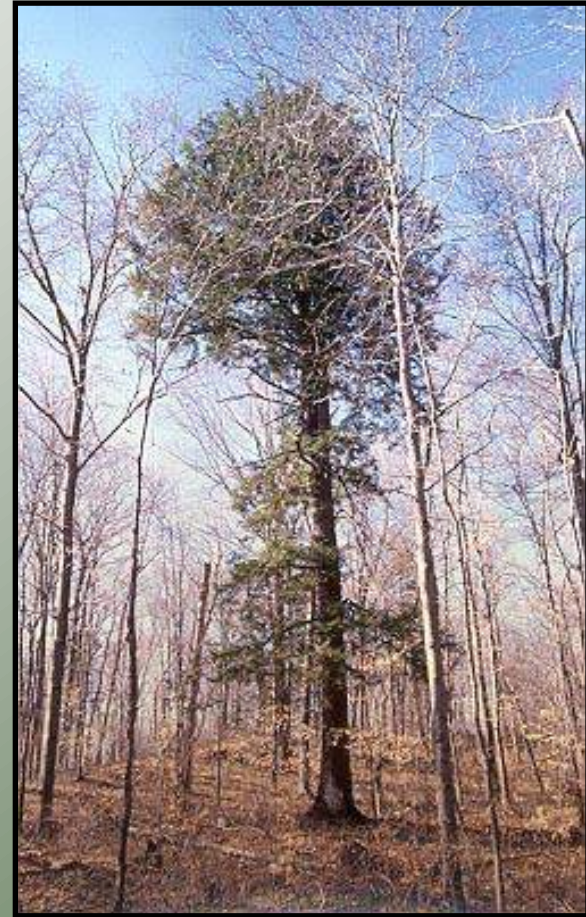


“When selecting among trees of similar quality or spacing, favour retention of less common species”

Trees of special importance to wildlife



Mast trees



Scattered conifers

Mast trees



Oaks



Beech



Cherry

Mast trees



Hickory



Basswood



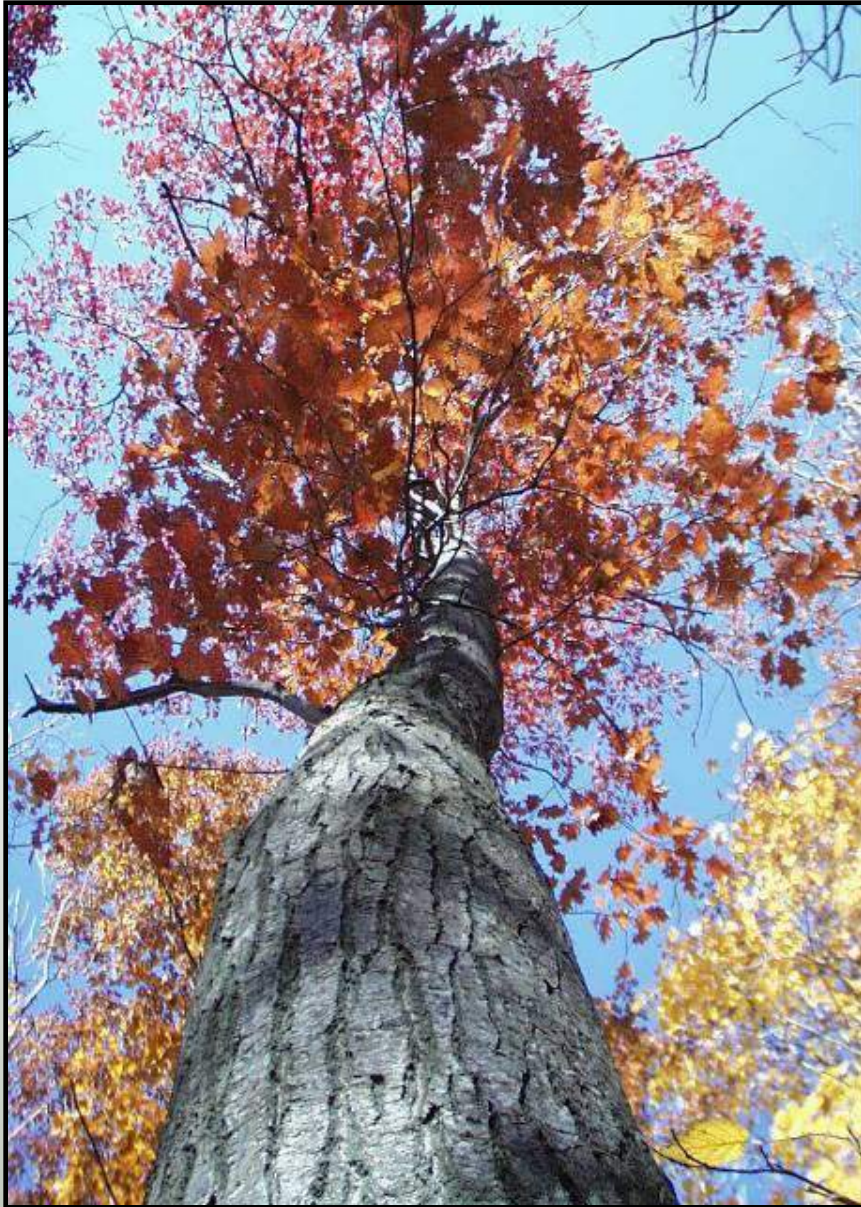
Walnut



Ironwood

Mast trees





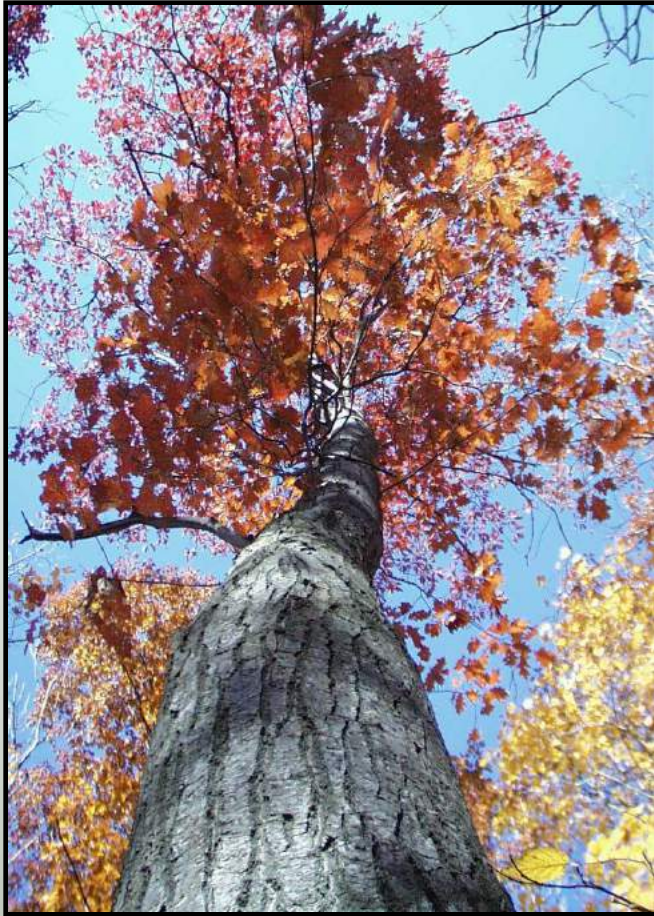
Mast Trees

- 10 mast trees/ha

Mast Tree Use by Species

Wildlife	Oak	Beech	Cherry	Hickory	Basswood	Walnut	Ironwood
Deer	***	+		+			
Black bear	***	***	***	+			
Raccoon	***		*	+			
Red squirrel	**	**	*	***	+	*	+
Grey squirrel	***	**	+	***	+	*	
Chipmunk	**	**	*	**	**		
Mice	**	+	+	+	+		+
Wood duck	***	*		**			
Ruffed grouse	***	**	**				
Wild turkey	***	*	+	*			
Downy woodpecker	+	+					+
Rose-breasted grosbeak	+	*	**	*			+
Cedar waxwing			***				
White-breasted nuthatch	***	+		+			
Blue jay	***	*	+	+			

Selecting mast tree species



White oak

Red oak

Beech

Cherry

Hickory

Basswood

Butternut

Walnut

Ironwood

Selecting mast trees



- Large trees
- Dominant or co-dominant
- Healthy
- Evidence of mast production
- Evidence of wildlife use

Scattered conifers





Scattered Conifers

- 10 conifers/ha

Selecting scattered conifers



Hemlock

Red spruce

White pine

Cedar

White spruce

Balsam fir

Selecting scattered conifers



- Large trees
- Dominant or co-dominant
- Healthy
- Dispersion

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Decaying, dead, & downed



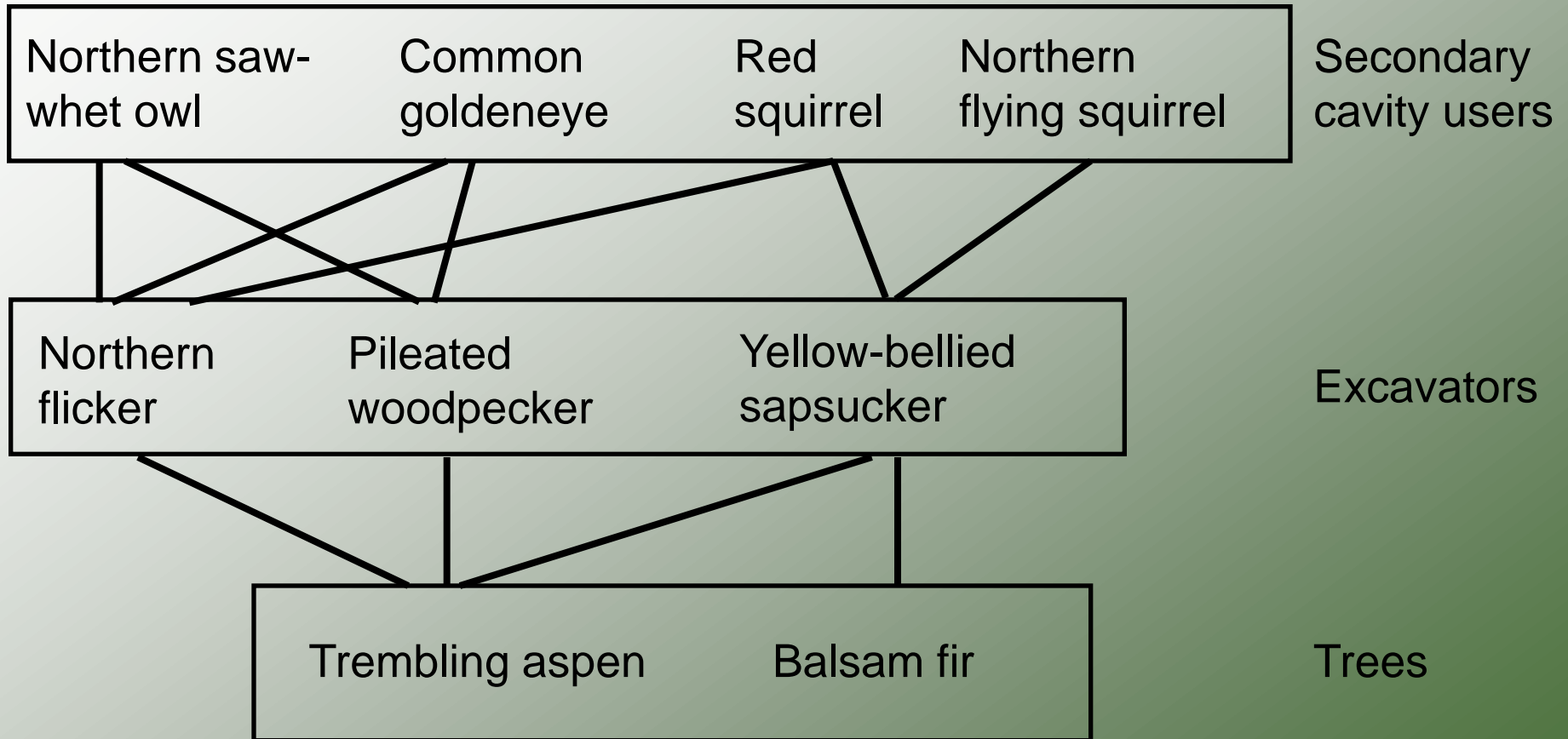
Negatively affected by aggressive stand improvement

There's life in dead wood



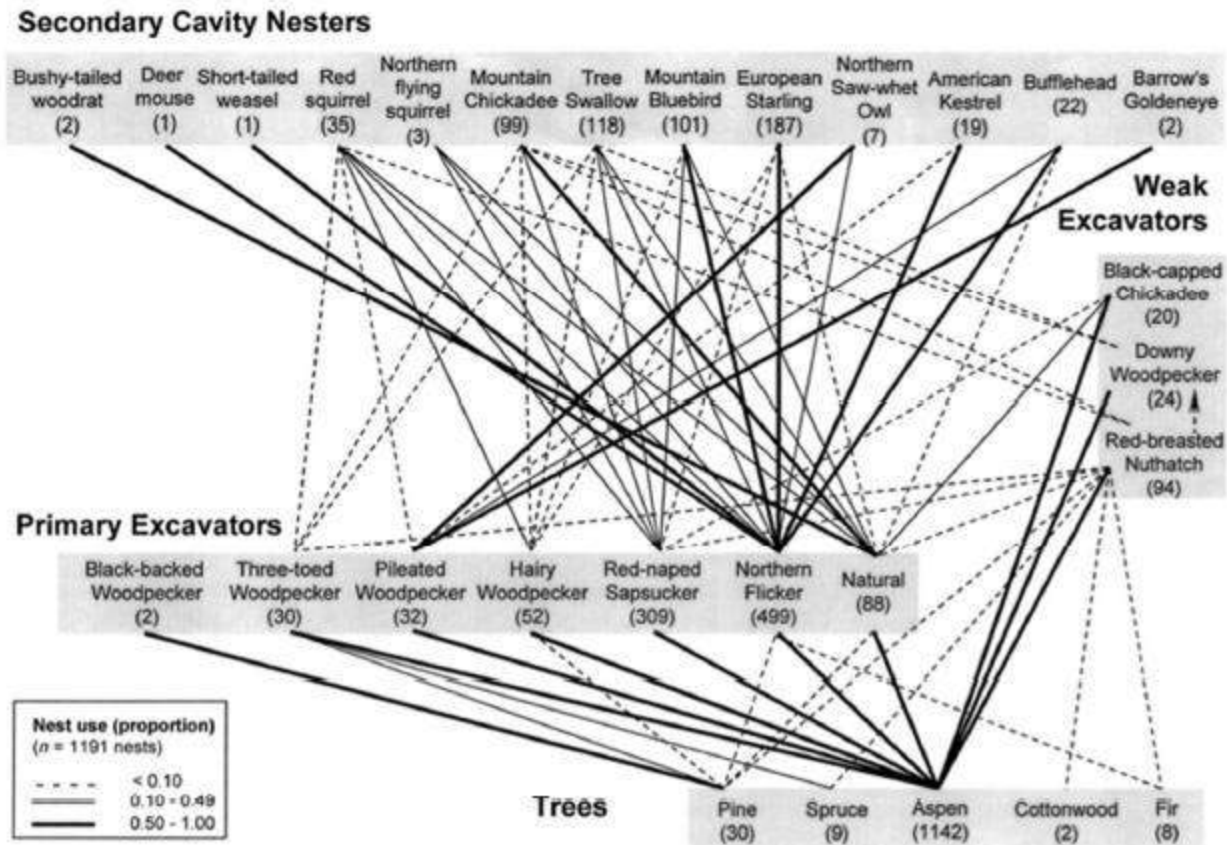
Cavity tree nest web

Boreal mixed wood example



Cavity tree nest web

Boreal mixed wood example



Martin et al. 2004

Selecting cavity trees



Pileated woodpecker roost

Pileated woodpecker nest

Other woodpecker nest

Natural cavity

Escape cavity

Woodpecker feeding excavations

Potential to develop cavities

Selecting cavity trees



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**Woodpecker feeding
excavations**

**Potential to develop
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Woodpecker feeding excavations

Potential to develop cavities

Selecting cavity trees



- Large trees
- Risk and vigour
- Species of tree
- Dispersion
- Multiple wildlife benefits

Cavity Trees

- 10 living cavity trees/ha



How to find tree cavities?



**Look at the trees from
a distance**

**Mostly in hardwood
trees**



**Check dead lateral
branches**

Look for wood chips on the ground
Listen for birds calling



Dead trees/limbs are valuable but can be hazardous



Down but not out!



Time to re-invest



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Supercanopy trees

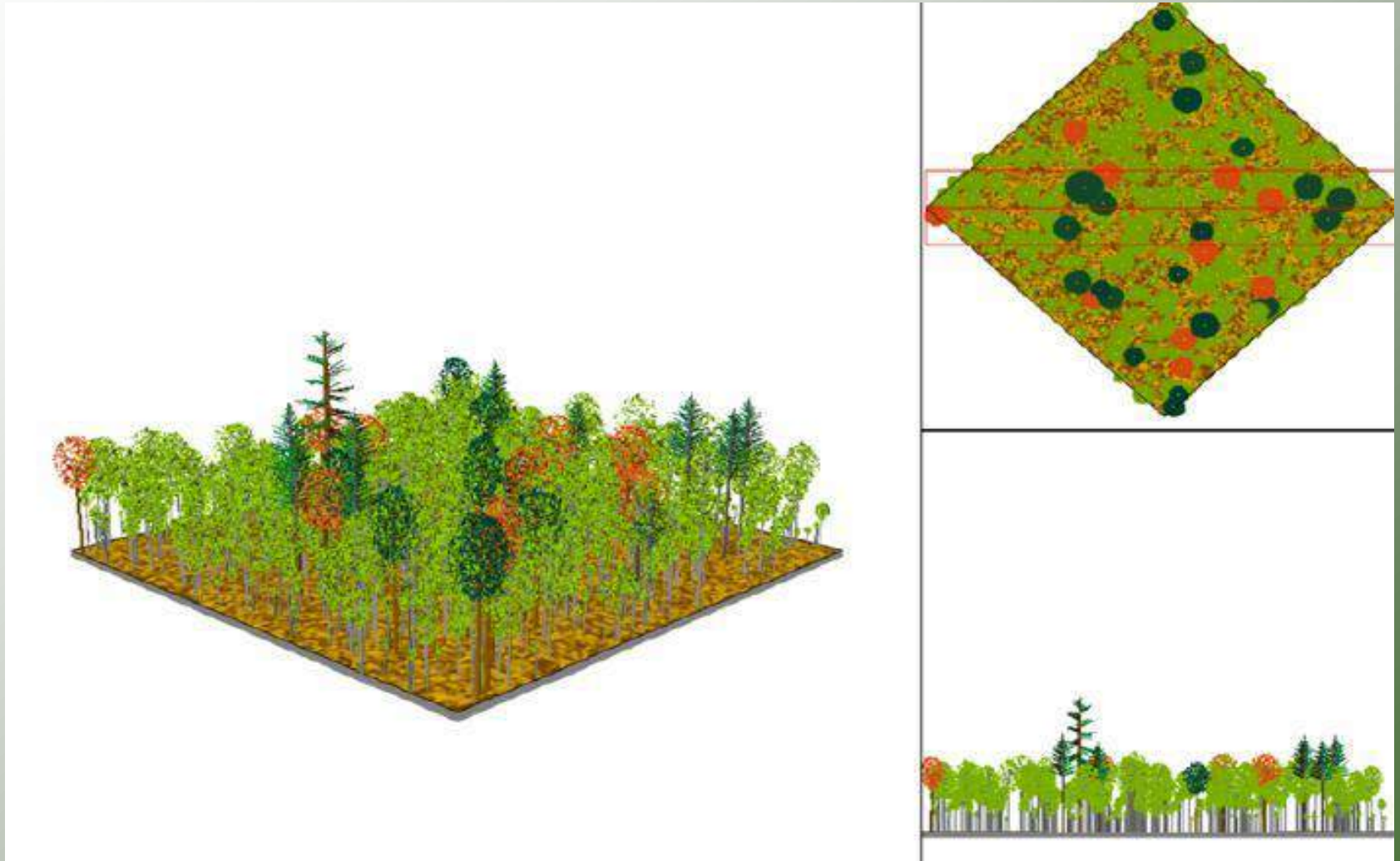


Supercanopy Trees



- retain 1 per 4 ha
- long-lived species

Single-tree selection in tolerant hardwood



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Stick nests



Bigger nest = more effort
...more likely to be reused



Bushel basket rule

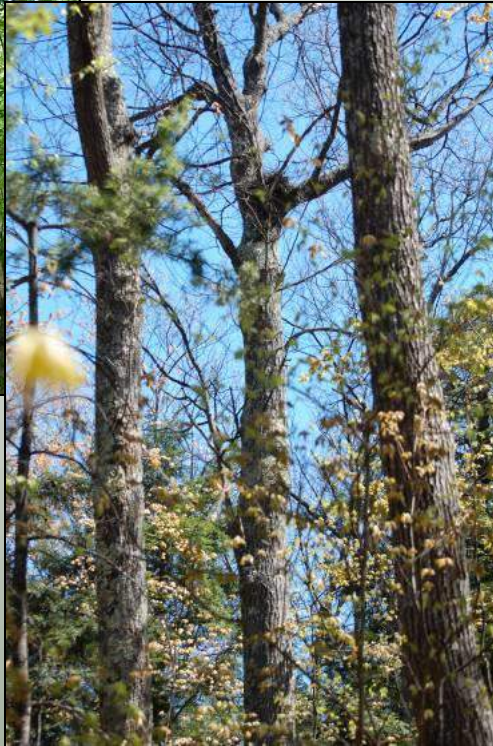
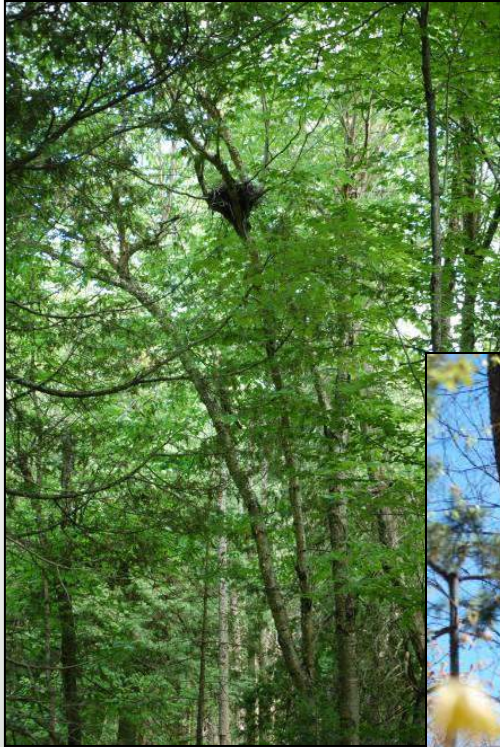


Large ≥ 75 cm



Small < 75 cm

Protecting nests



- Common species:
 - Small nests: leave nest tree
 - Large nest: leave nest tree and 20 m buffer
 - Forestry operations around occupied nest: Refer to Stand and Site Guide for AOCs
- Uncommon species: Refer to Stand and Site Guide

Uncommon species



How to tell nests apart?

- diameter of nest
- depth of nest
- height of nest in tree
- size of sticks
- density of nest
- species of tree
- type of forest



Woodland pools



Protecting woodland pools



- Maintain forest canopy over the pools (within 3 m)
- $\geq 50\%$ crown closure of trees $> 10\text{m}$ tall within 15 m
- If accidentally fell trees in pool, do not remove
- No skid trails or landings

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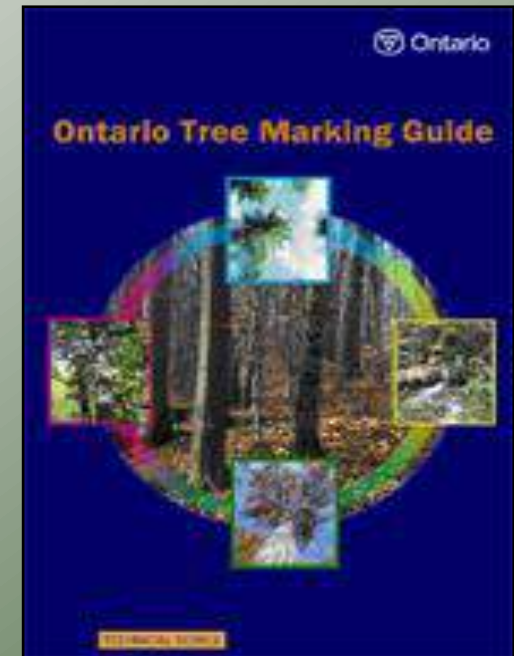
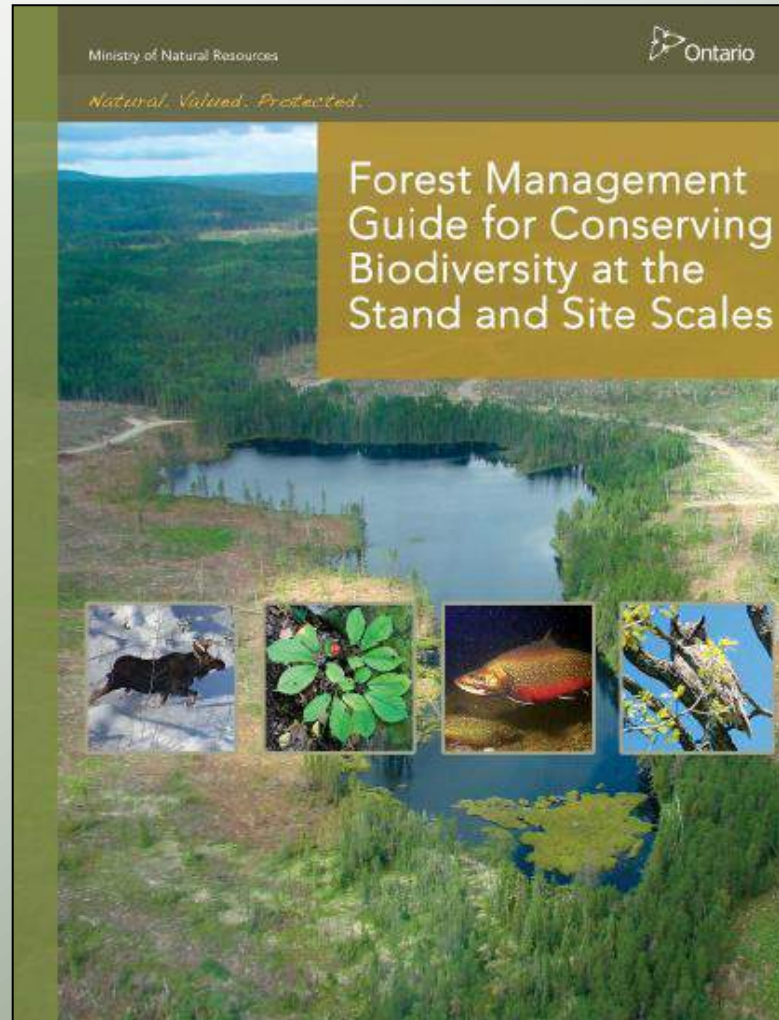
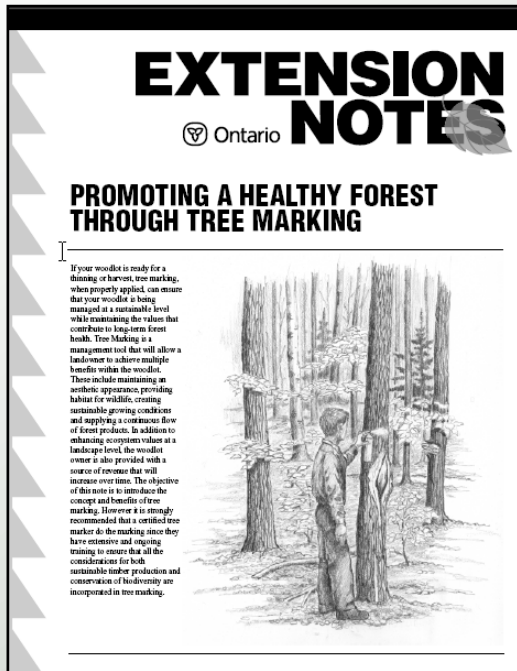
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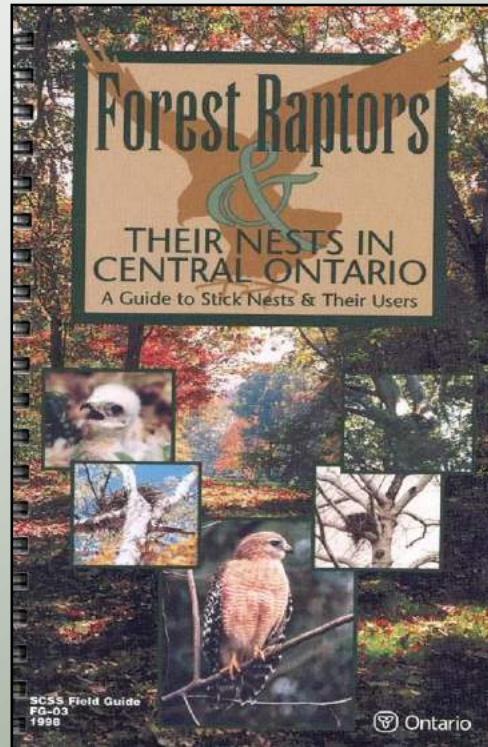
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Resources



<https://www.ontario.ca/page/forest-management-guides>

Resources



<https://www.ontariowoodlot.com/publications/owa-publications/landowner-guides>