



Wildlife and your Western Washington Woodland

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We love the forest

A photograph of a dense forest. A gravel path leads from the bottom right towards the center of the image, disappearing into the distance. The forest is filled with tall, slender trees, likely deciduous, with vibrant green leaves. The ground is covered in a thick layer of green ferns and other low-lying vegetation. Sunlight filters through the canopy, creating dappled light on the path and the forest floor. The overall atmosphere is peaceful and natural.

Our habitat

ATTENTION

Wildlife
←

Seattle
Public
Utilities

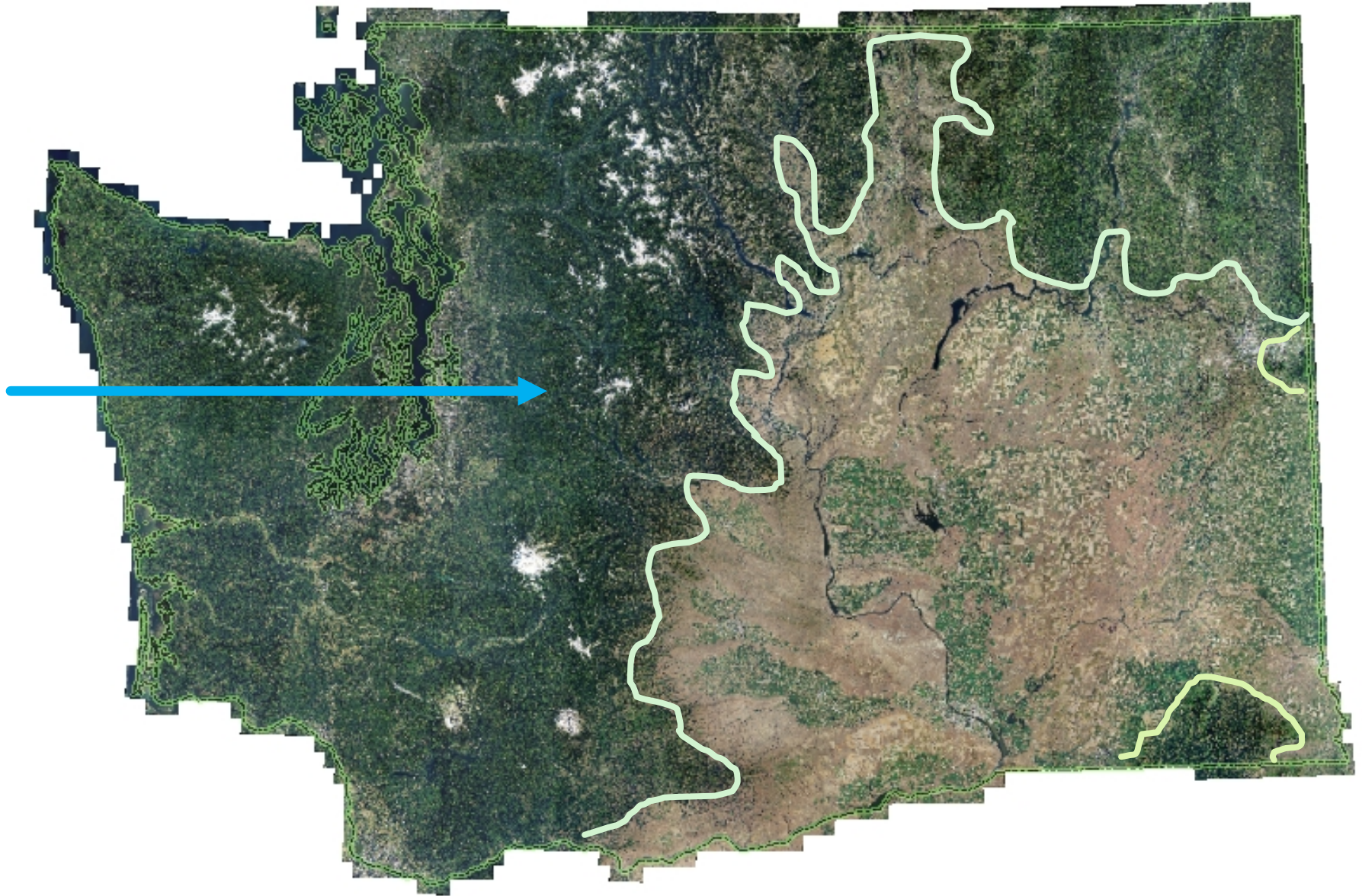


Watershed
Management
Division

Ecosystems Section
Cedar River Watershed
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21334-0000

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Washington state

Over 400 species of wildlife live in Washington's forests



Wildlife has 4 basic needs –
vary by species. Different limiting factors

Food

Water

Cover

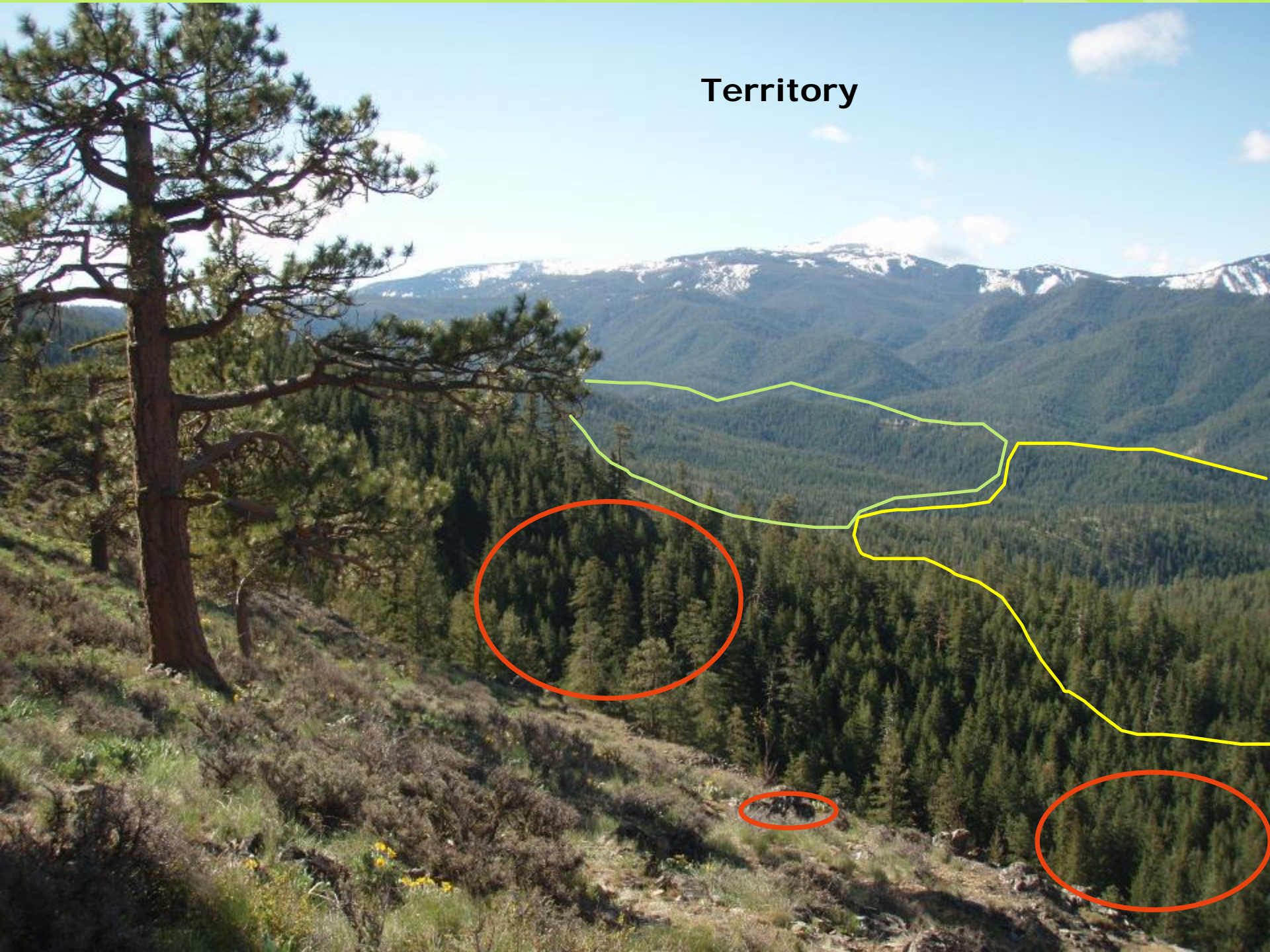
Territory





Cover

Territory



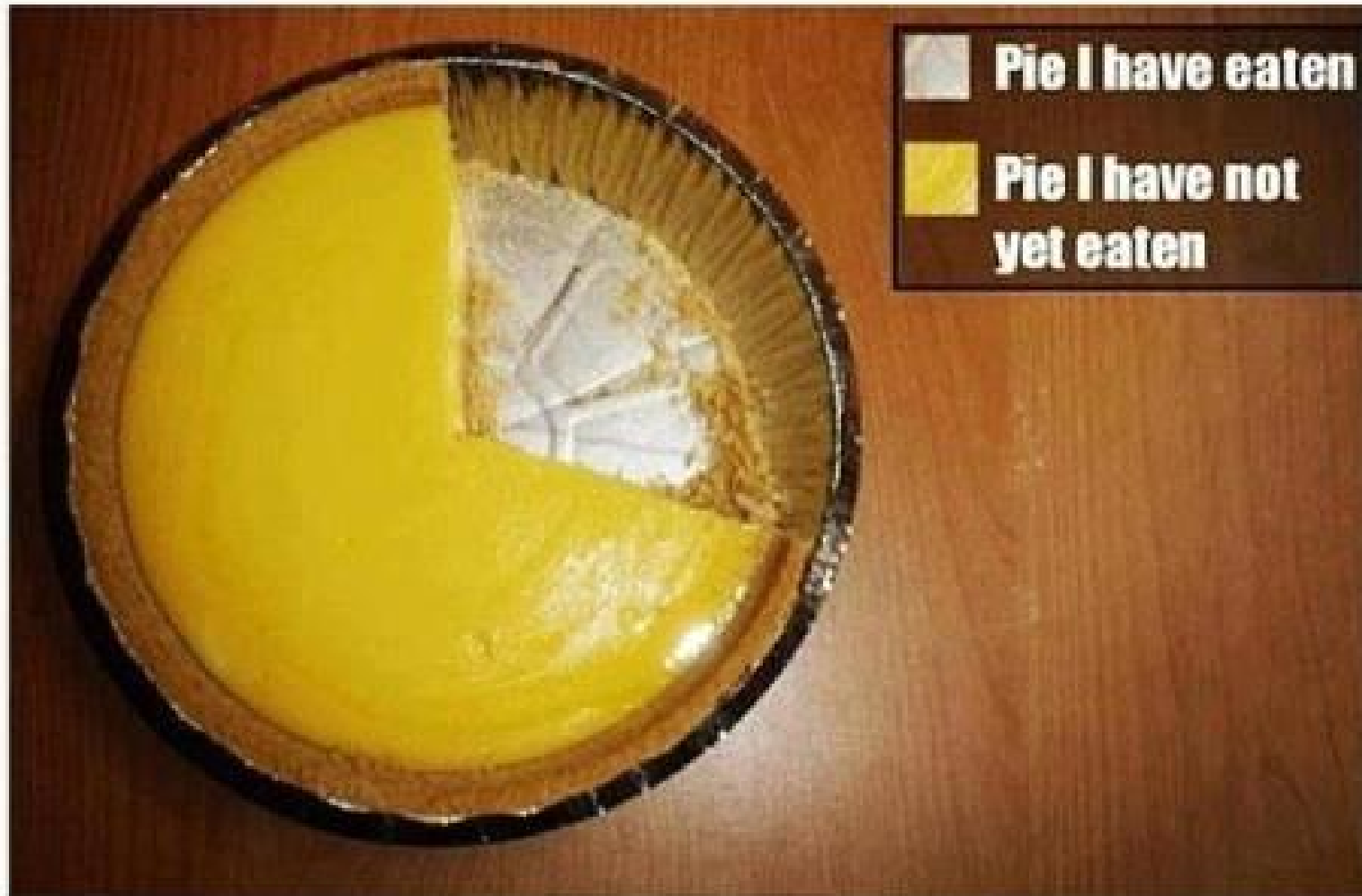


**Territory
Size can be
limiting**

Hypothetical
Pileated
territory

World's Most Accurate Pie Chart

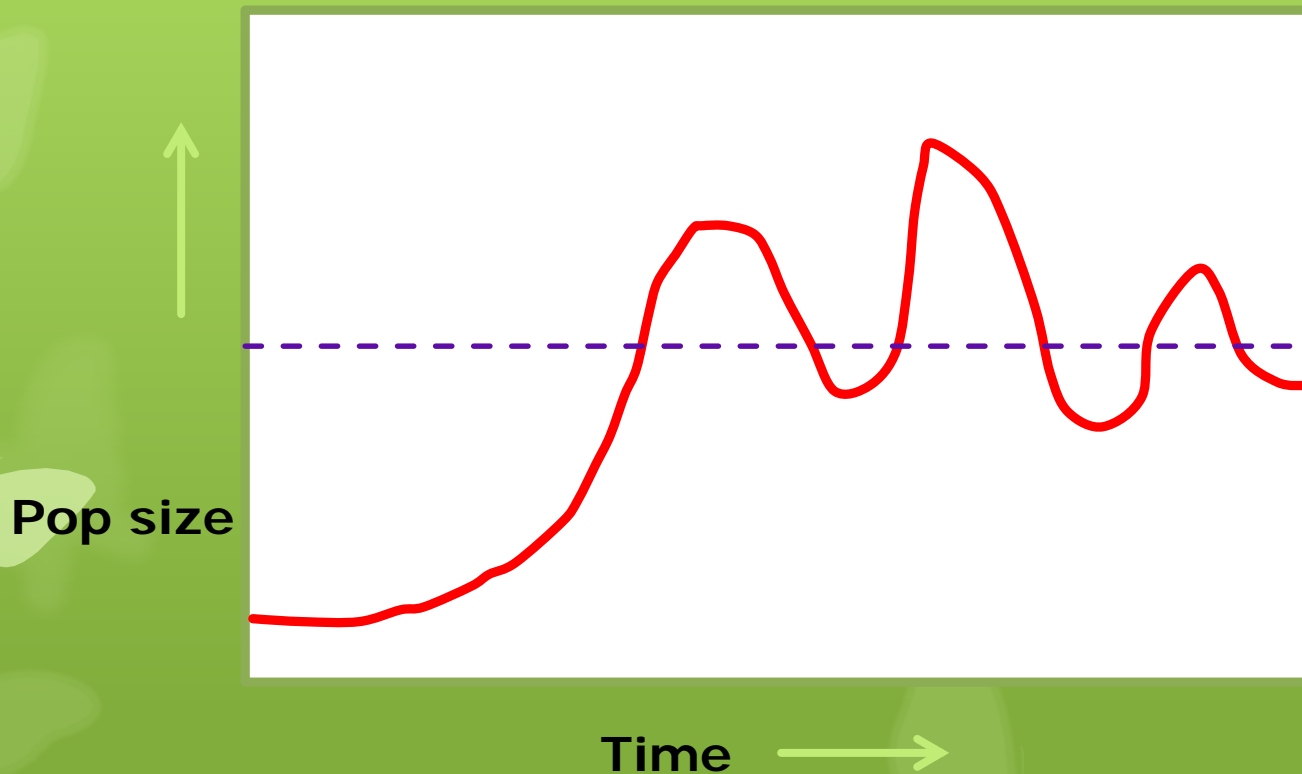
Science
Stuff



Wildlife Management in one slide

Population Dynamics

Population Size
determined by **Limiting Factors**



Limiting Factor Examples:



Great Blue heron – need large trees near water for nesting

Limiting Factor Examples:



Pileated needs dead wood

A photograph of a dense forest, likely a temperate rainforest, showing various layers of vegetation. The image is used to illustrate the complexity of forest habitats. Labels are overlaid on the image to identify different parts of the forest structure.

All Forests are

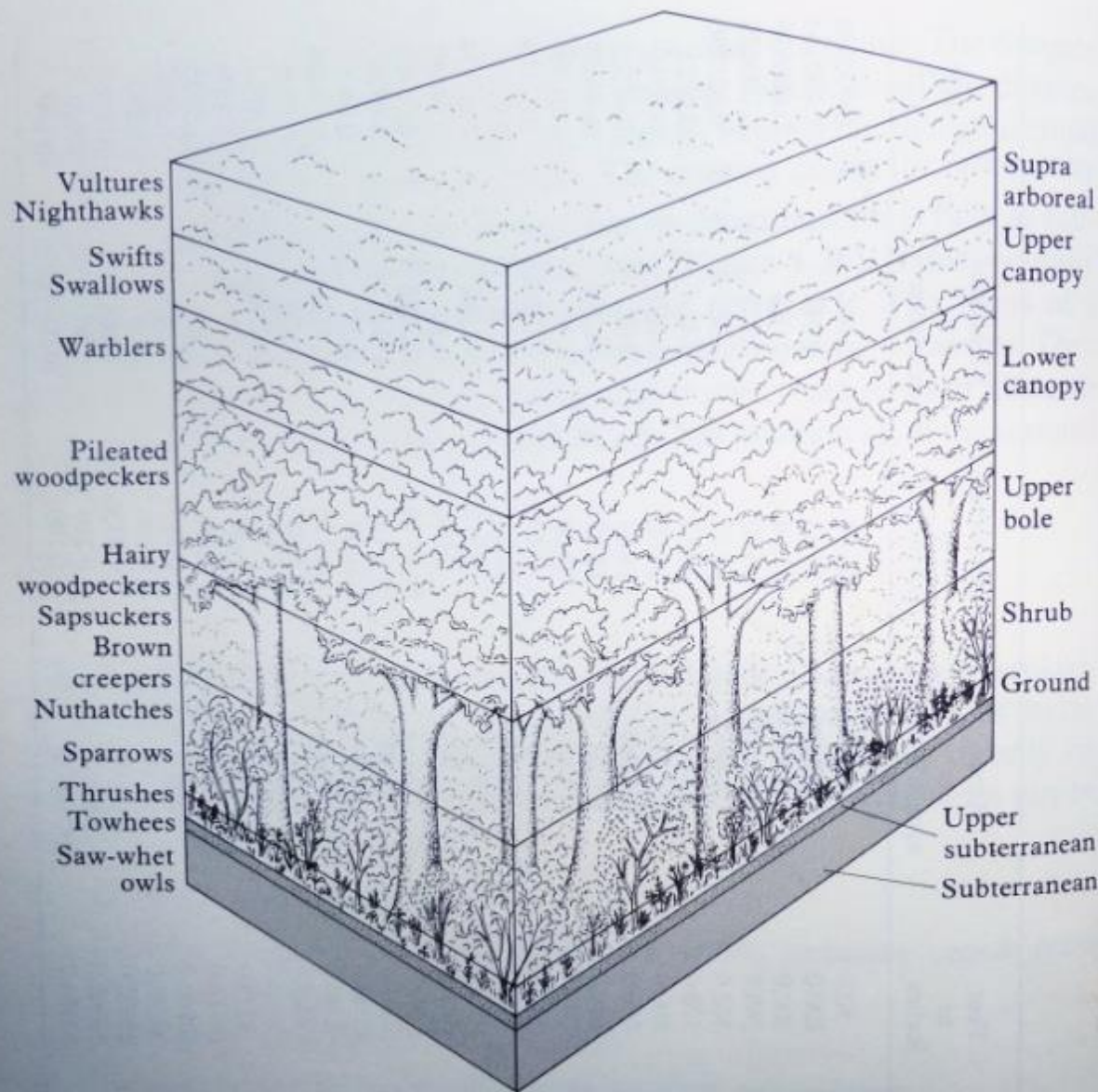
Canopy

Stem

Understory

Ground

**Complex Habitats
Full of Niches**



Habitat Niches

From
College Text
"Wildlife
Management"
R. Giles, 1978

FIGURE 4-4

Schematic of nine layers of an advanced forest, with the birds that typically inhabit each. Some layers may be lost as a result of fire or practices such as grazing. Rock or soil type may reduce the potential soil layers.

Feature Species:

Blacktail/Mule deer Size: 3-3.5 ' tall

Weight: 100 -400 lbs

Food: Browse shrubs

Habits: Wide variety
Of habitats. Black tails/mulie
Are considered subsp.
Forked antler tines
Migrate elevationally
Can live in towns.



Hairy Woodpecker



Size: 9.5"

Food: insect larvae

Habits: Primary cavity
Excavator,
Non-migratory
Drums and calls
Widespread in conifer
forests

Douglas squirrel



Size: 10" body

Food: cone seeds
Fungus, some meat

Habits: Territorial
Resident of conifer
Forests. Cone caches
Loud territorial displays
Scolds us in woods
Cavity user and builds
nests

Vole – (approx 8 spcs in WA)

Size: 4-6"

Weight: ½ oz

Food: Grass, roots, fruits

Habits: Tunnel underground
In summer, winter make
Burrows under snow at surface
Like to live in grassy areas
Major prey item for many
Raptors and other predators
"Meadow Mouse"



Western tanager



Size: 7"

Food: Insectivorous

Habits: Neo tropical
Migrant

Winters as far south
As Costa Rica

Summer nesting in WA
Beautiful black,
Yellow and orange

Black bear



Size: 5' – 6' long
2' -3' shoulder ht.

Weight: 200 – 475 lbs

Food: Omnivorous

Habits: Nocturnal
Semi-hibernates,
Seldom aggressive
Ranges 15 miles
Color varies from blonde
To black.



INTERESTING WILDLIFE!

Old forests





Today Forests





Today Forests

Logging history shaped current stands







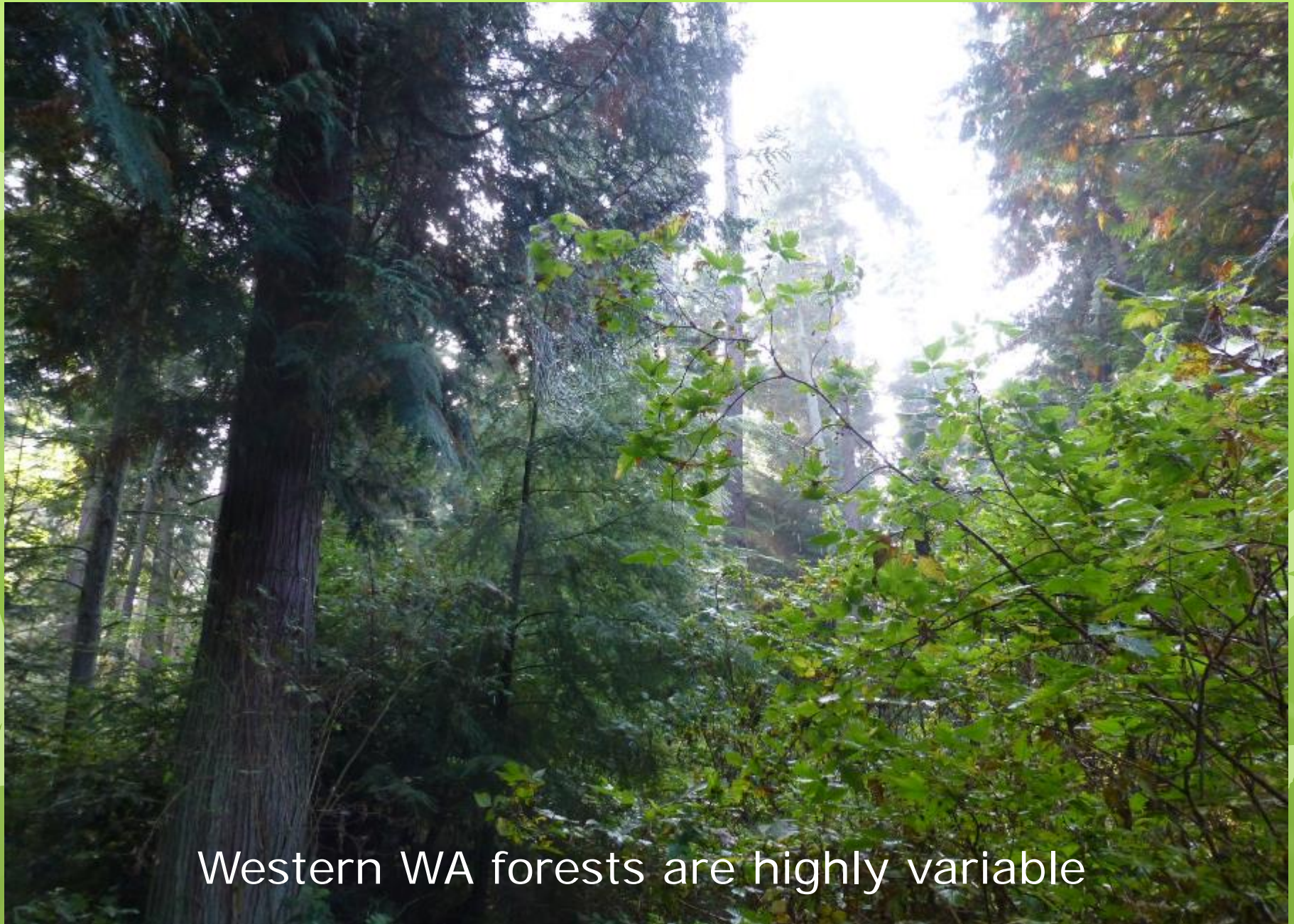
Logging History



12-88.
LOGS ENROUTE TO CANTON SPAN, MOUNTAIN
WITH CABLE DRIVE. TUMBLE, COFFEE, FOUNTAIN
TUMBLE, VIEW OF CANTON.



14819



Western WA forests are highly variable



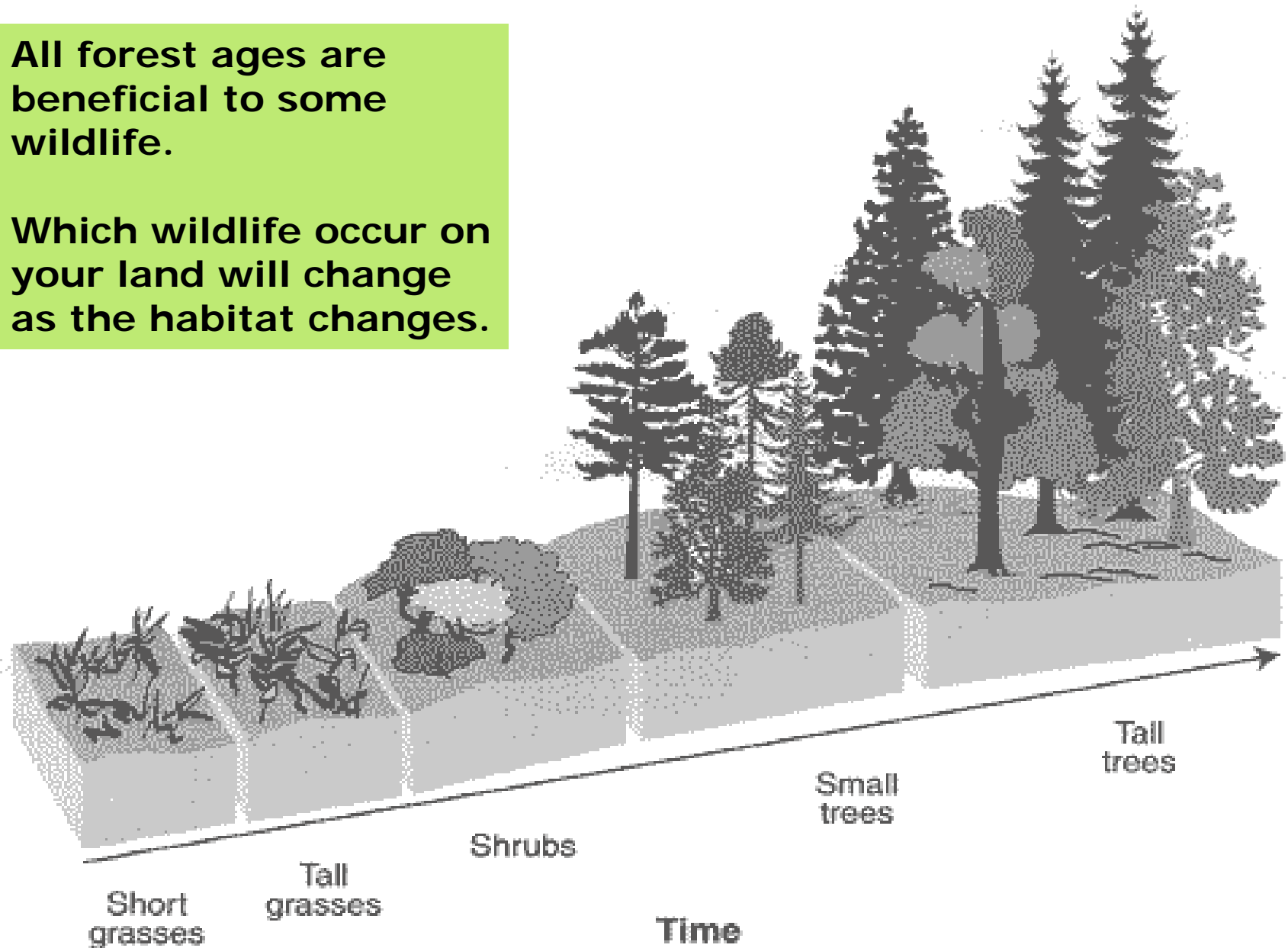
Washington state



Forest Ecology

**All forest ages are
beneficial to some
wildlife.**

**Which wildlife occur on
your land will change
as the habitat changes.**



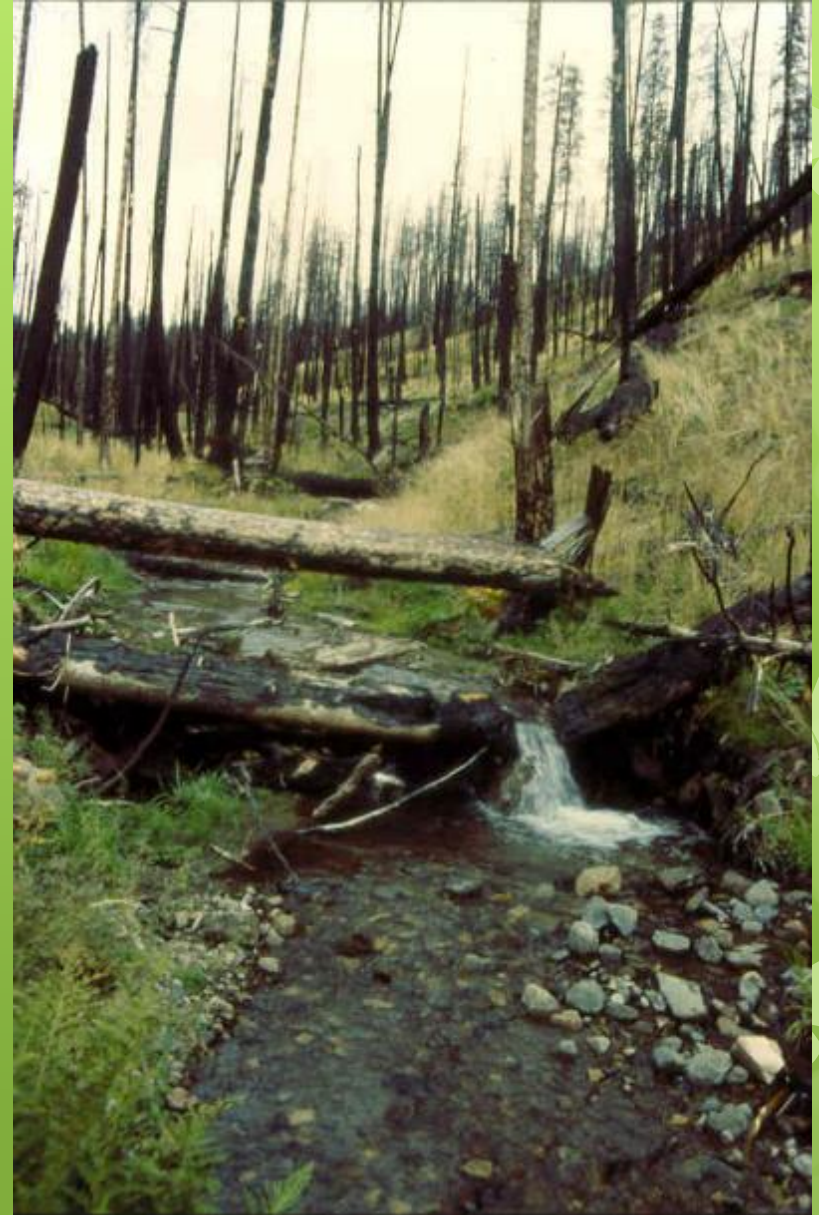
What is a tree?



Forest Ecology



“Disturbance” leaves wood



wind throw

APR 10 2002



Logging is like a windstorm (disturbance wise).





Results of crown fire 1990

Point: WOOD always Persists.

Hard snags



Become soft snags with time



Life cycle of dead trees

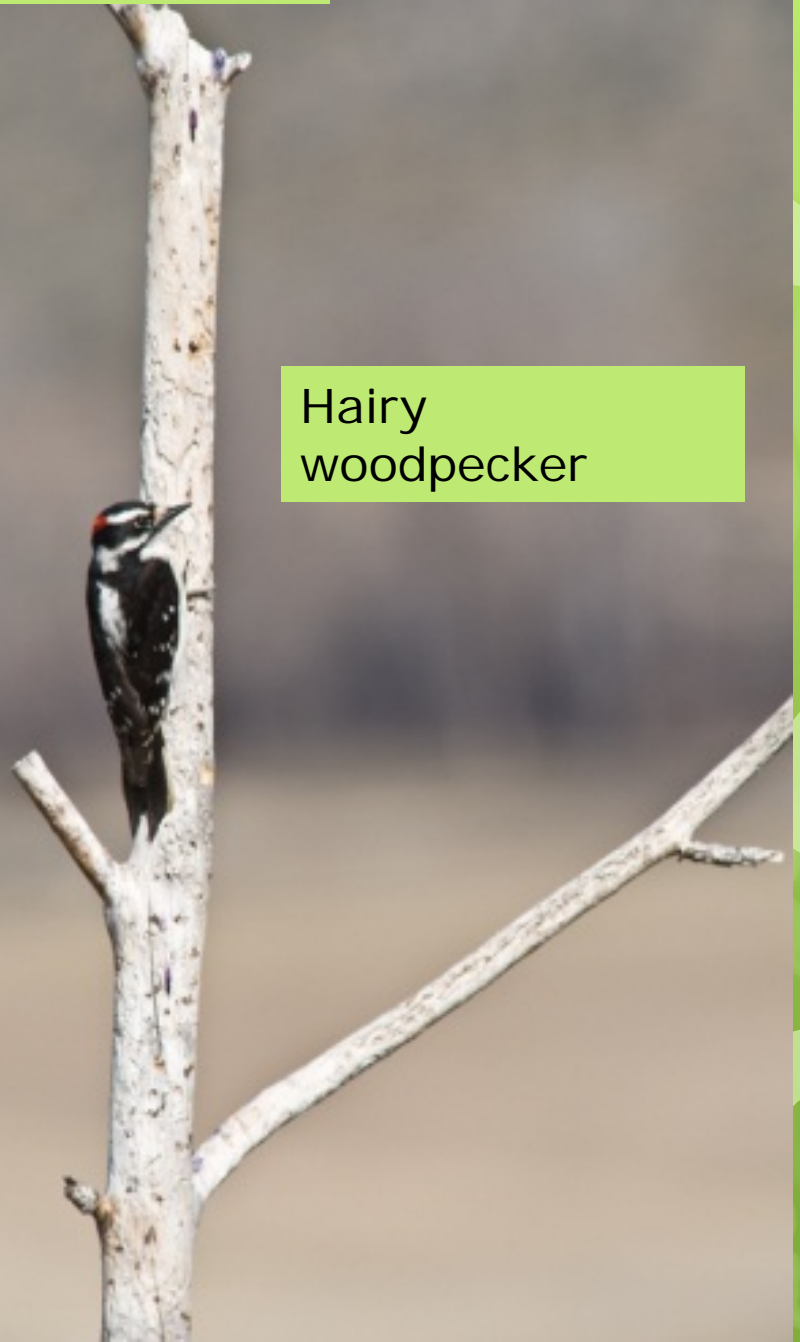


Primary Cavity Excavators

Sapsucker



Hairy
woodpecker



Primary Cavity Excavators

Downy woodpecker



Pygmy
nuthatch

Pileated Woodpecker




Nest cavities





Pileated
Woodpecker Nest
Cavity

A close-up photograph of a weathered wooden surface. A large, dark, circular hole is visible on the left side, surrounded by a lighter, textured ring. To the right, a wooden knot is visible, showing the grain of the wood. The text "Prime Real Estate" is overlaid on the right side of the image.

Prime Real Estate

Secondary Cavity Species



Bluebirds



Tree swallows





Chickadee and
nuthatch



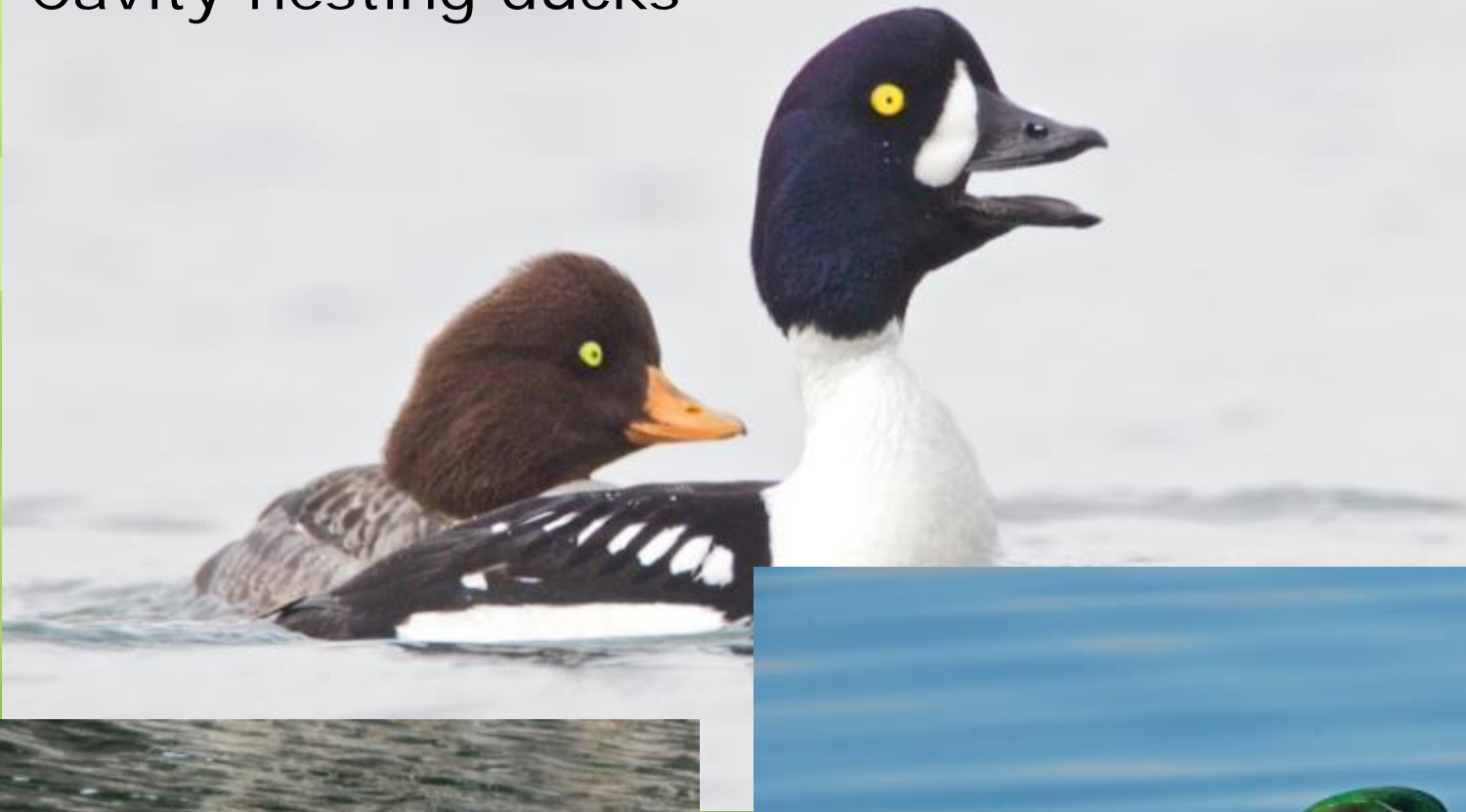


wren

Saw whet owl



Cavity nesting ducks



Mammals in cavities



Flying squirrel
& bats



Down Logs are
Great habitat



Thanks

!





Rotting wood
Feeds everything





Log users



Long toed salamander



Red backed vole



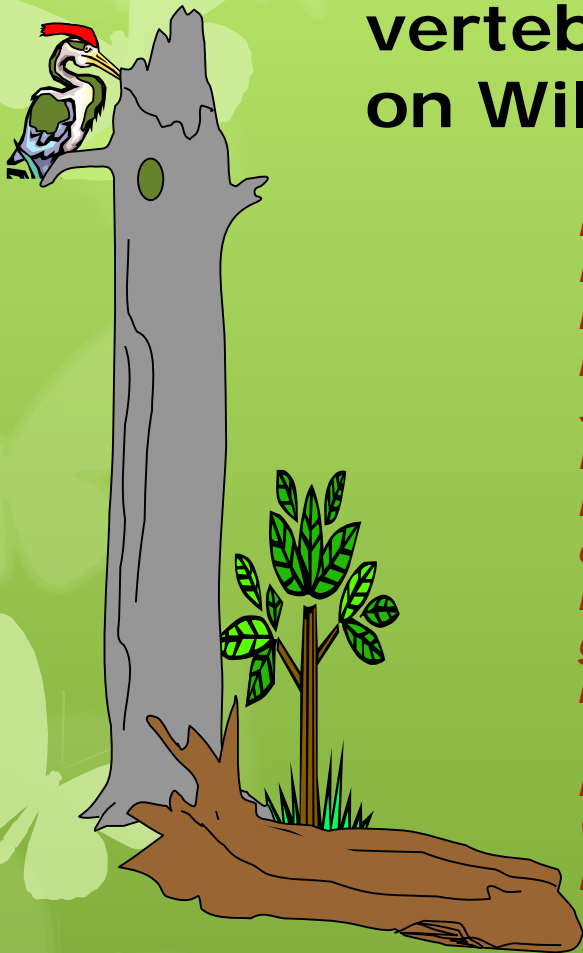
Rubber boa

Moist!



Wildlife Tree Associated Species

Almost half (40%) of forest vertebrate species are dependent on Wildlife Trees!!!

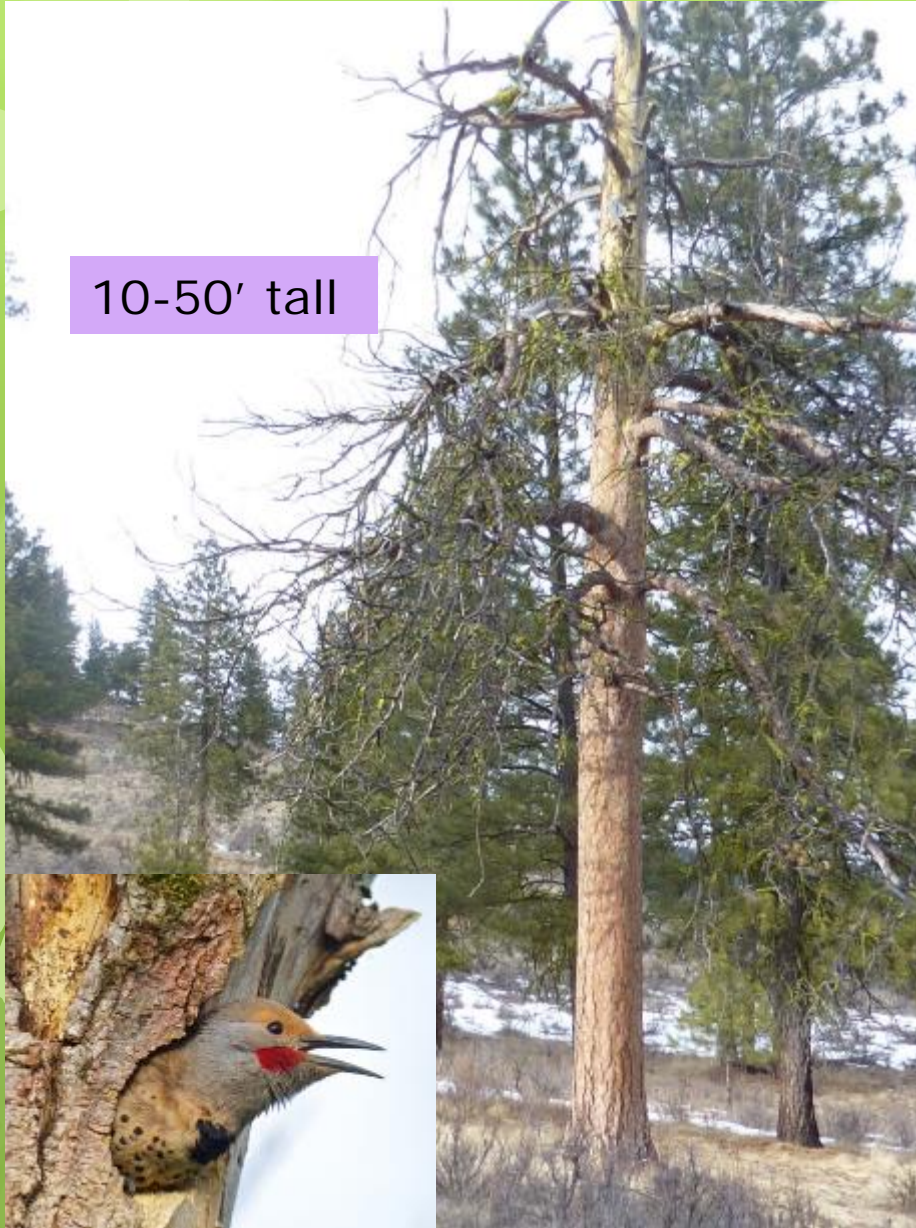


Pileated woodpecker, flying squirrel, Douglas Squirrel, pygmy nuthatch, red tree vole, marten, Little brown bat, bald eagle, goshawk, barred owl, Screech owl, Red breasted sapsucker, N. flicker, Vaux's swift, ruffed grouse, blue grouse, Black-capped and Chestnut-backed chickadee, Brown creeper, House wren, marbled murrelet, Bufflehead, Barrow's goldeneye, Mountain and Western bluebird, Cooper's hawk, W. red backed Salamander, Rough-skinned newt, rubber boa, Raccoon, black bear, Long tailed weasel, Bushy Tailed woodrat, deer mouse, Townsend's chipmunk, Ermine, sasquatch, California myotis, Yellow pine chipmunk, Tree swallow, And many more.....

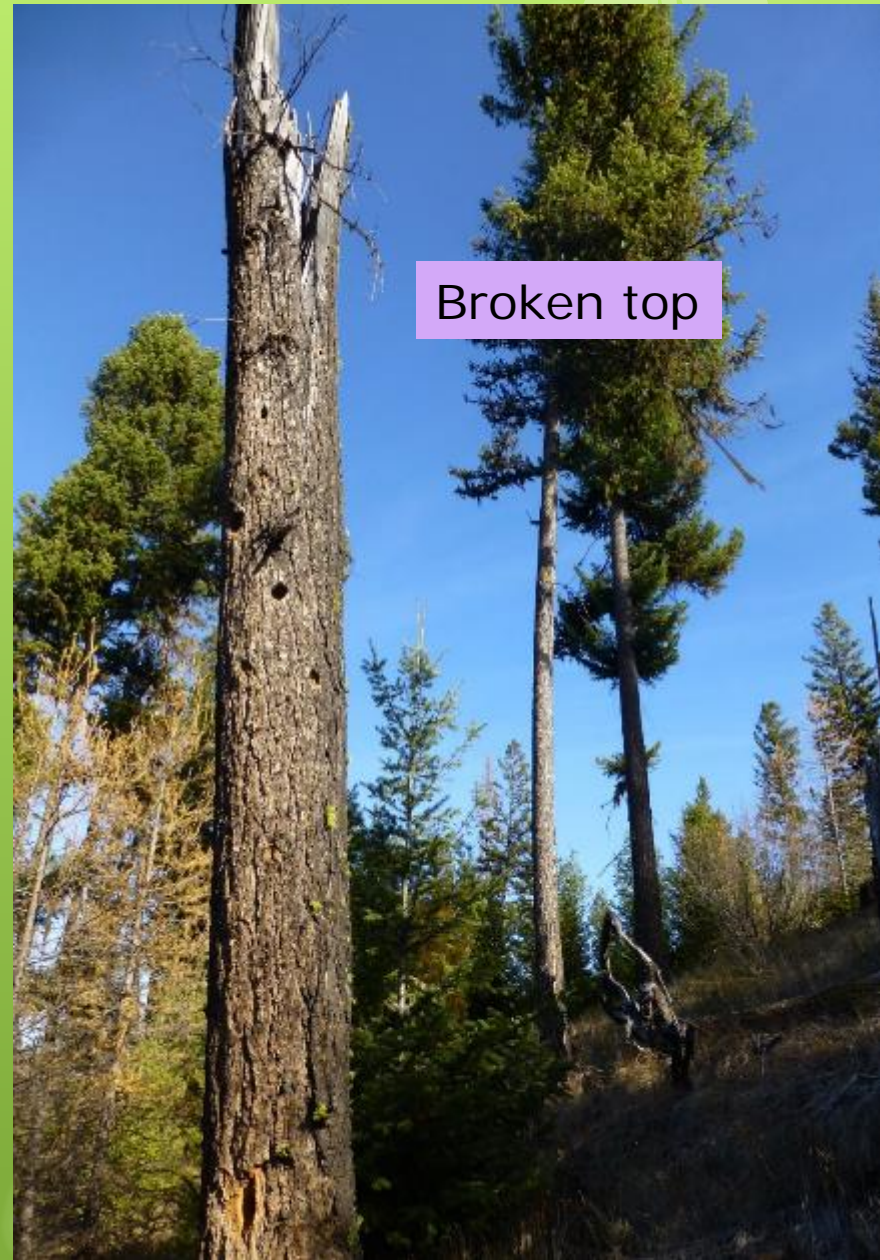


The Best Snags

10-50' tall



Broken top





***Dead Wood =
Great habitat!***

What can you do with your forest?



A photograph of two men standing in a field of tall green grass, with a forest in the background. The man on the left is wearing a light blue shirt, blue pants, a tan cap, and an orange safety vest. The man on the right is wearing a green jacket, khaki pants, black boots, and a green hat. They are both looking at each other and appear to be in conversation. The man on the right is gesturing with his hands. Two yellow text boxes are overlaid on the right side of the image. The top box contains the text "What do you want?" and the bottom box contains the text "OBJECTIVES!".

What do you want?

OBJECTIVES!

What are you starting with?



Is your
forest
Uniform?



A photograph of a forest floor covered in moss and fallen branches. In the foreground, a large, moss-covered tree stump is visible. The background is filled with numerous thin, moss-covered tree trunks and dense foliage. A text box in the upper right corner contains the text "Young and brushy?".

Young and brushy?

A photograph of a dense forest. The scene is filled with tall, slender trees and a thick canopy of green leaves. Sunlight filters through the foliage, creating a dappled light effect. The forest appears to be mature and multi-layered, with various tree species visible. A text box is overlaid on the upper right portion of the image.

Mature and multi-layered?

Where do I begin?



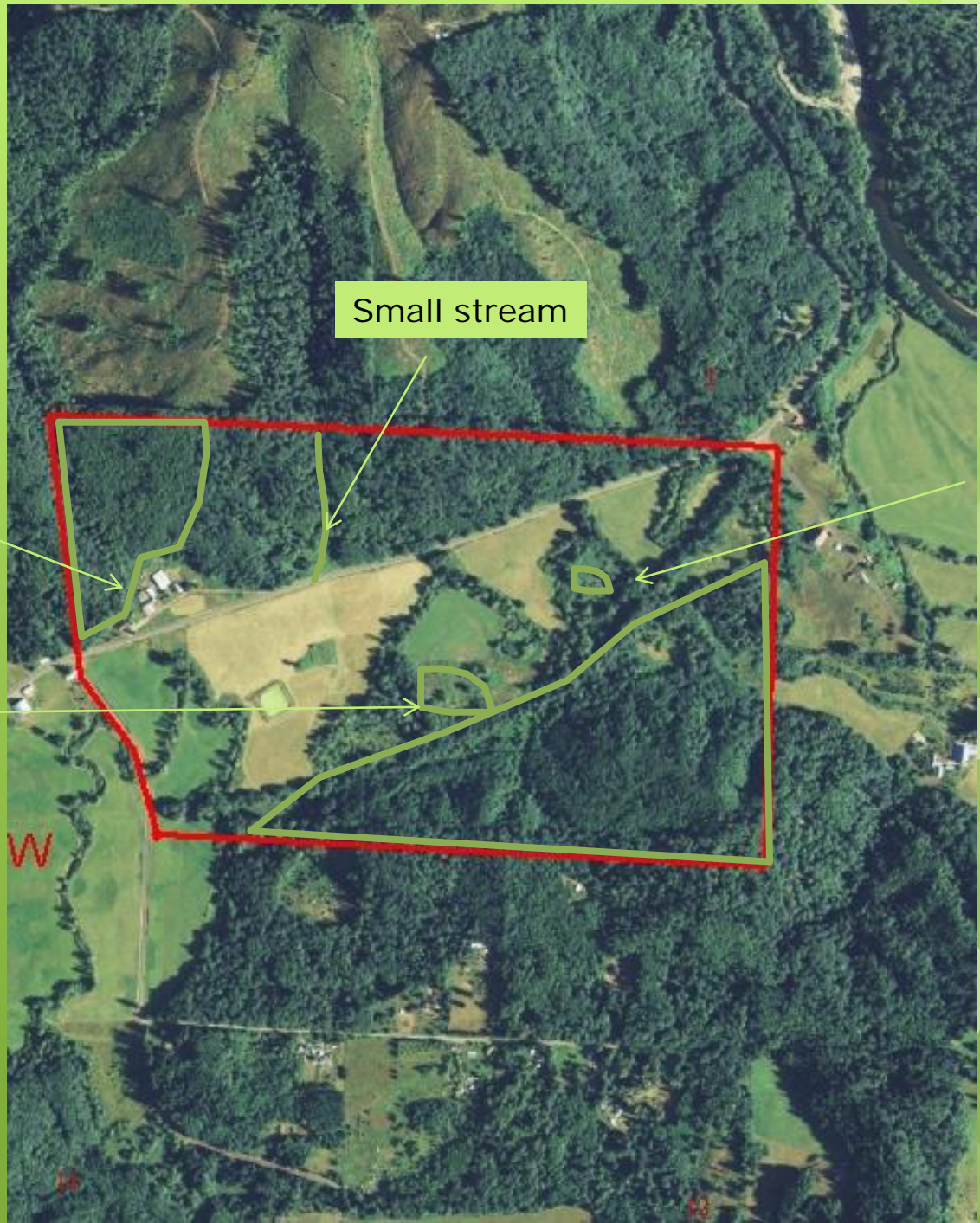
Gather Info: Inventory Your property For habitat features

Young stand
w/ no snags
Or logs

Wet Area

Small stream

Snag
patch



Gather Info: Record Observations

Systematic by season – species, approx numbers,
Behaviors
Location on your property

There's one!



Gather Info:
Remote Cameras



What can you do for Wildlife Habitat on your place?

#1. Protect existing habitats

- Special features (esp. wet areas)
- Snags and Logs
- Big and “defective” trees
- Shrubs



Manipulate Habitats

- Thin
- Plant
- piles
- Seeding
- Nest boxes



Started from nothing



Habitat Management on Your Forest lands

Protect existing important features



Bald eagle
nest



Legacy wood
- snags, stubs,
stumps, logs



These persist



Legacies will persist



Whidbey Island – cedar stump about 100 years old



Protect snags



Esp. bigger ones

Protect Cavity Trees



Live Cedar



Live Maple

Protect Old Logs





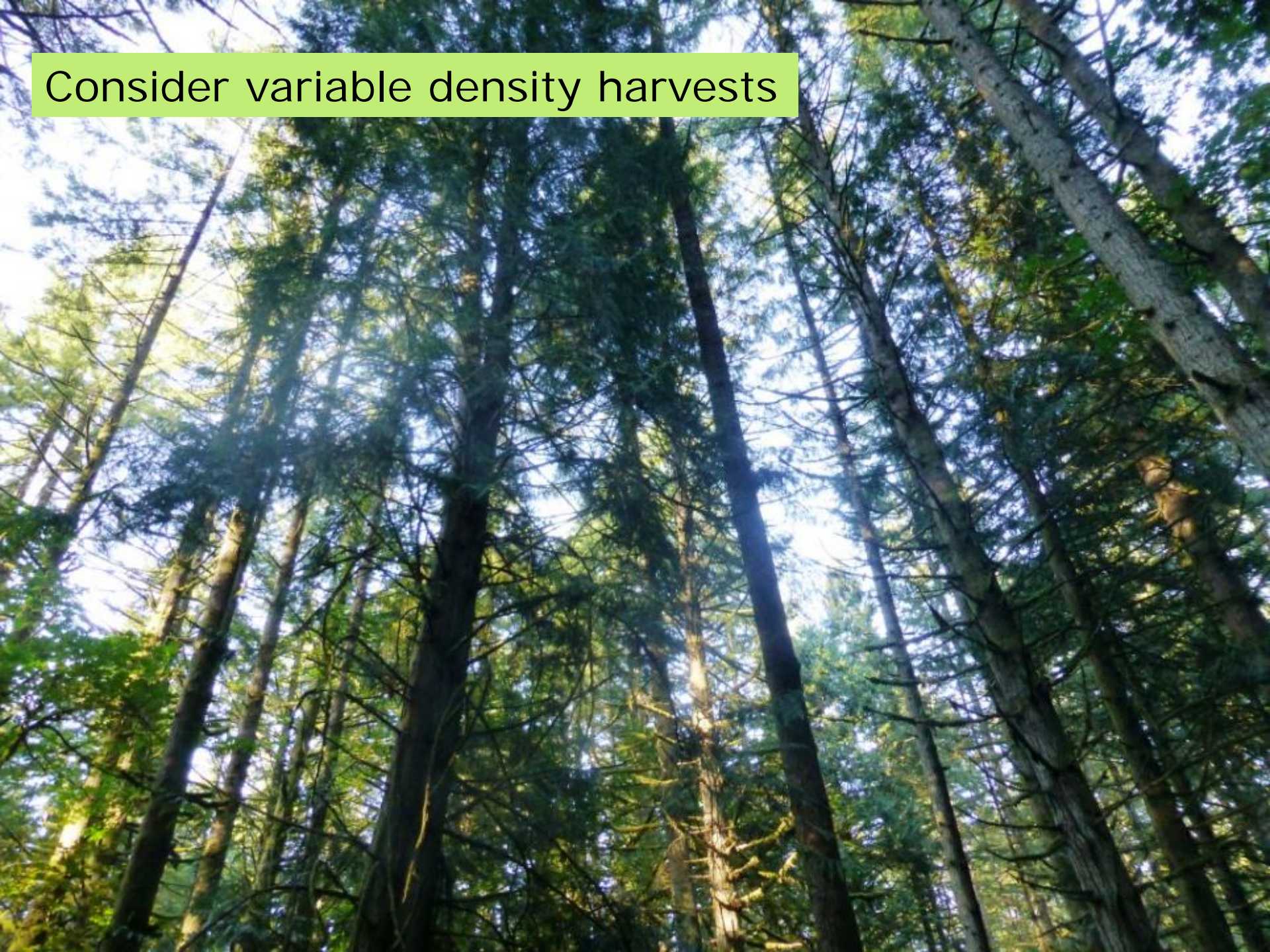
Thinning is often appropriate

Closed canopy plantations are not
Good habitat – lack diversity

Thin carefully to avoid blowdown



Consider variable density harvests



Variable Density with Skips



Opening



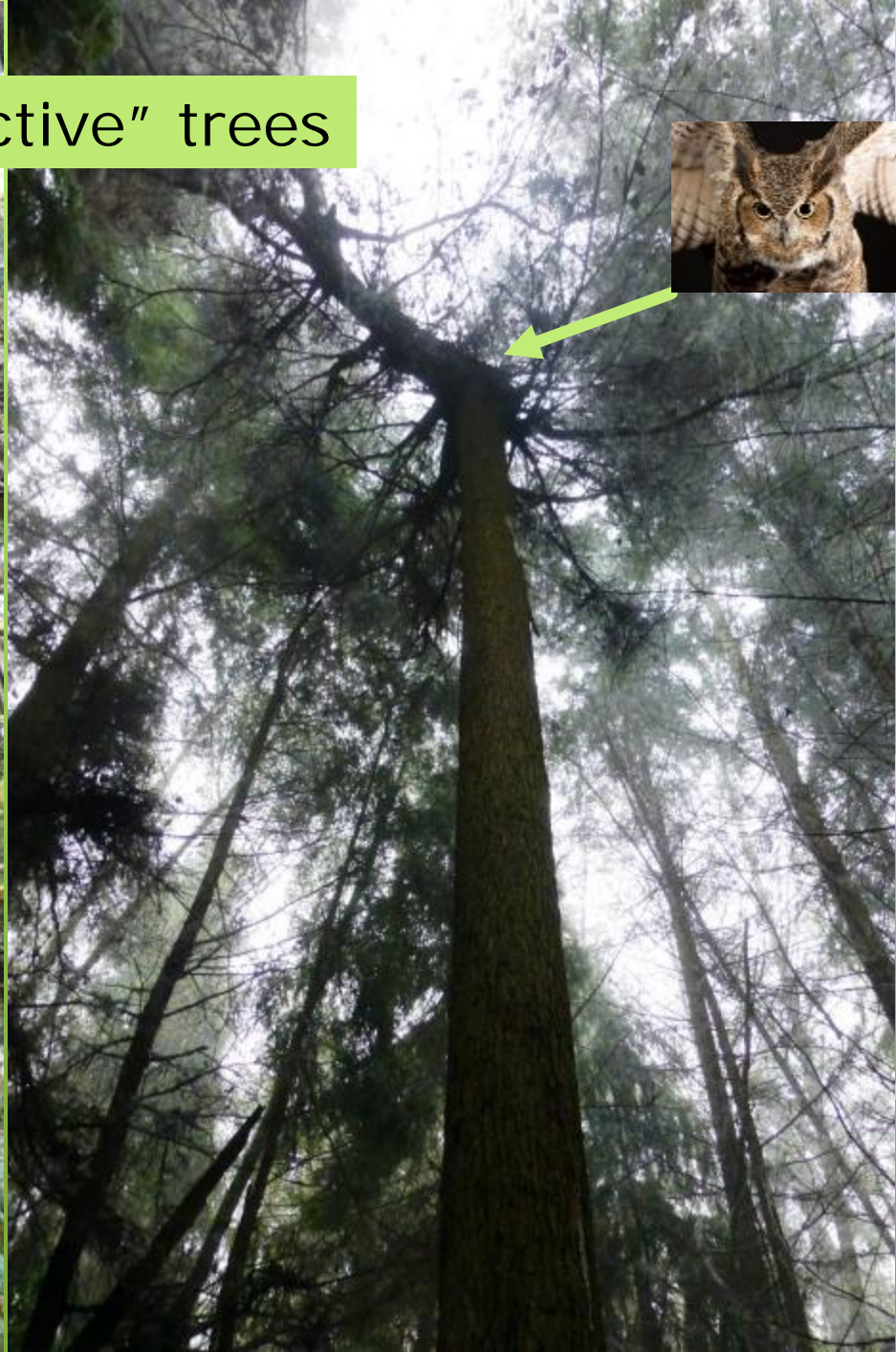
Gather firewood as a part of thinning



Keep big trees
And some hardwoods



Keep "defective" trees



Create Snags



Girdling





2014 my house



Snag Creation with Machine



Snag Creation





Bluebird nesting in
Snag created by felling
machine
(13 years prior)



**" A Tall stump is
a short snag"**



Water



Shrub Layer



Favor Plants that bear fruit

Cascara

Currant

Elderberry

Serviceberry

Chokecherry

Hawthorne

Huckleberry

Salmonberry



Fruiting Shrubs are wildlife favorites



Find your best local shrubs
- Like elderberry



the good stuff



Shrub enhancement and underplanting



Seed mixes on disturbed soils



Tree swallow



Nest Boxes



Mountain
bluebird





**Wood duck boxes near
Small wetland**



Maintain Nest Boxes!

Nest box installed 1990

Photographed 2013

Not cleaned out in 5+ years



Go for it! (make them the same)



Habitat Piles





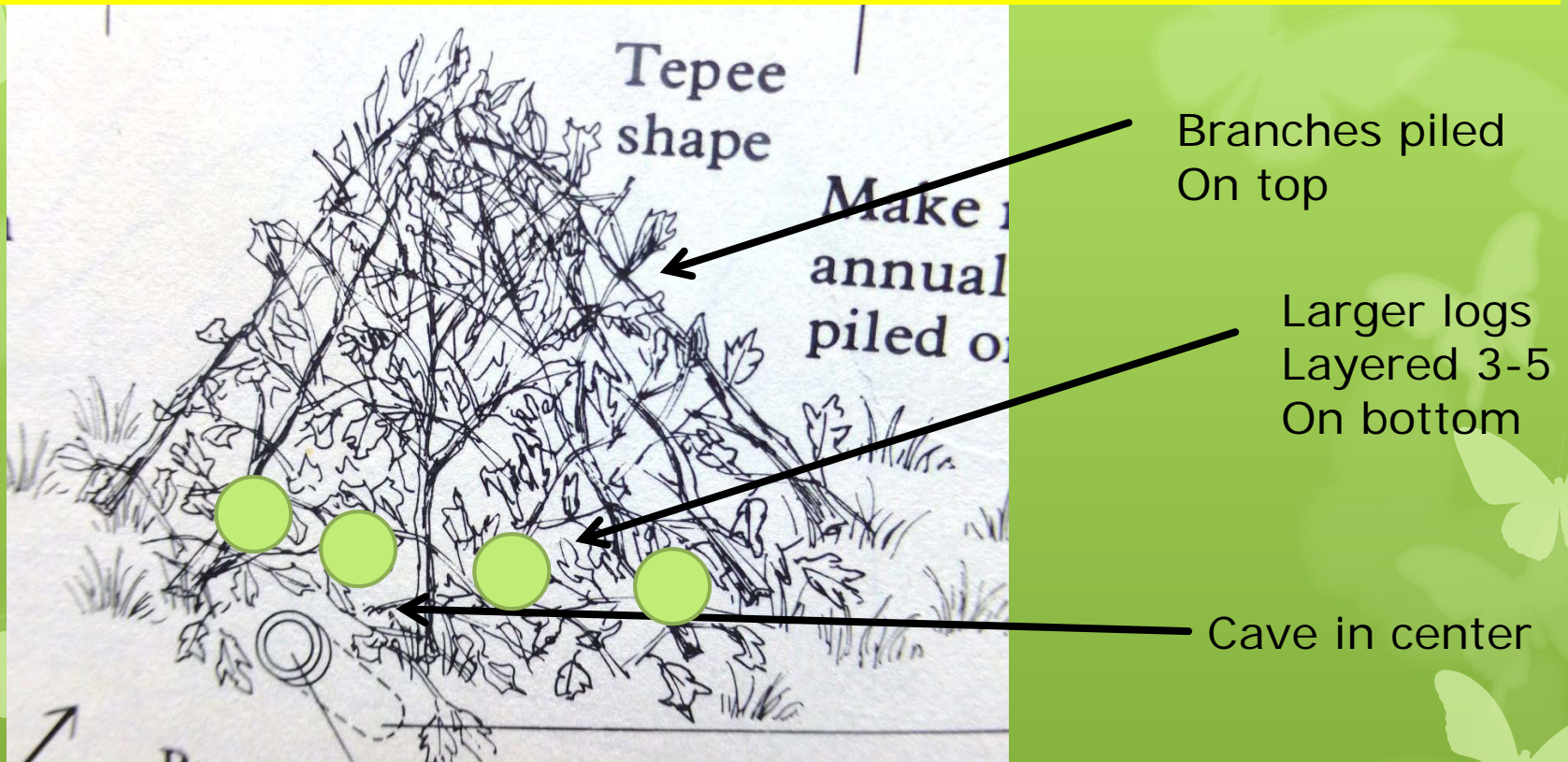
ATTENTION

Wildlife

South
Parks
Unit
Watershed
Management
Division
Ecosystems Section
Cedar River Watershed
(906) 223-1515

Habitat Pile

*** Easy and Valuable to many species ***





What were those things again?

Protect Existing Habitats

- Wet areas
- Snags/logs
- Big/defective trees
- Preferred shrubs

Manipulate/ Enhance

- Thin
- Make snags
- Seeding
- Nest boxes
- Piles



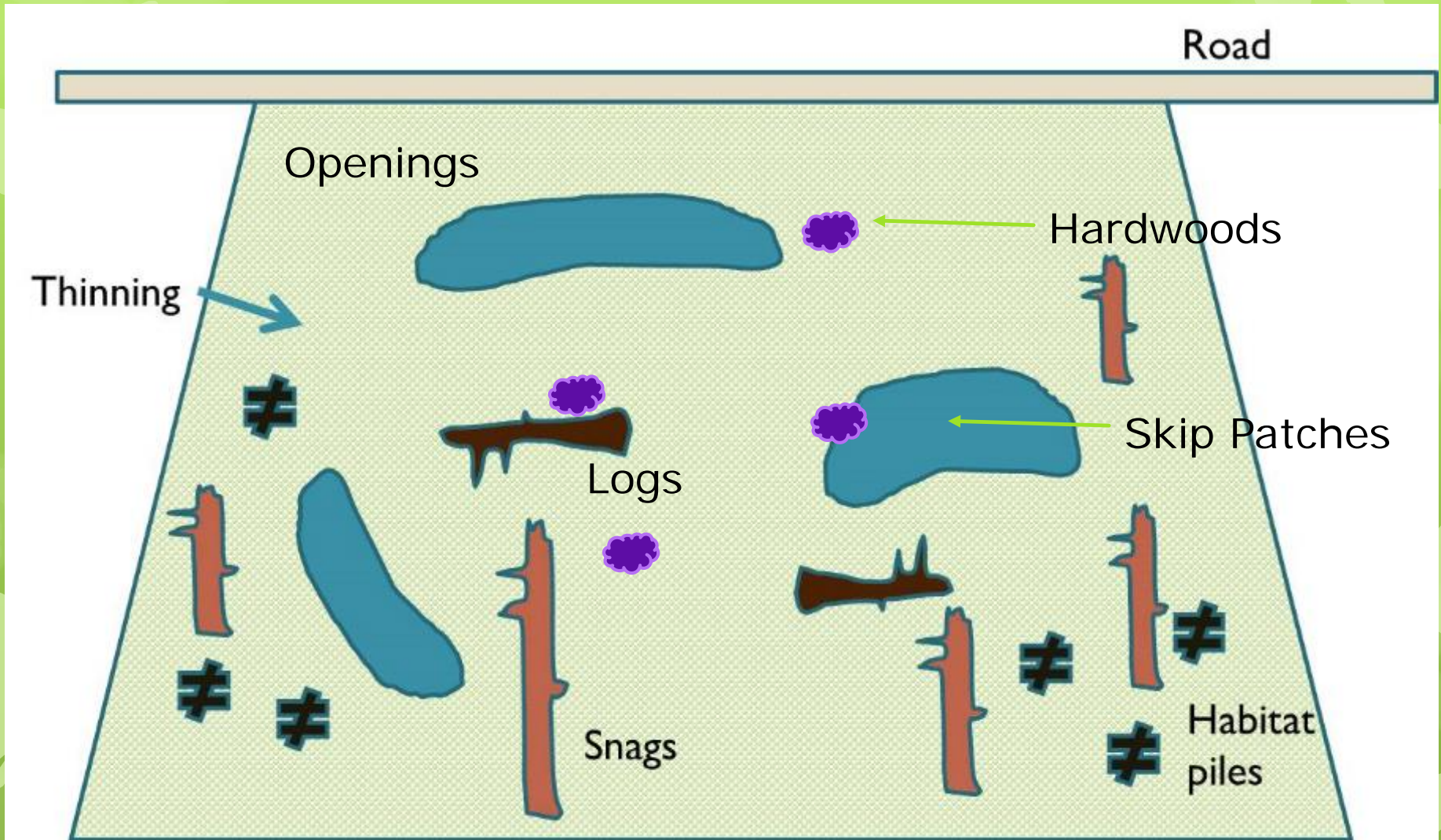


Watch out for dangerous wildlife!

NOW WHAT?



Hypothetical Variable Density Treatment



Habitat elements everywhere, 10-20% skips, openings or hardwoods

Now What?



A photograph of a lush garden. In the foreground, there is a green lawn. In the middle ground, a small waterfall flows over rocks into a small pond. The garden is surrounded by various shrubs and plants, including a large yellow-green shrub on the left. In the background, a dense forest of tall evergreen trees rises. The sky is overcast.

What does it need?

Native shrubs,
snags, water

A photograph of a forest scene. The foreground is filled with a dense carpet of green, leafy plants. Several tall, slender tree trunks rise from the ground, some with thin, bare branches. In the background, more trees are visible, creating a layered effect. The lighting suggests a sunny day with dappled light filtering through the canopy.

What does it need?

Thinning

A photograph of a dense forest. In the foreground, there are several large, moss-covered tree trunks and a thick layer of green ferns and other undergrowth. The background is filled with tall, slender trees reaching up towards a bright, overcast sky. The overall atmosphere is lush and verdant.

What does it need?



What does it need?

Shrubs and trees

Snags Created by feller-buncher



What does it need?

Depends on...

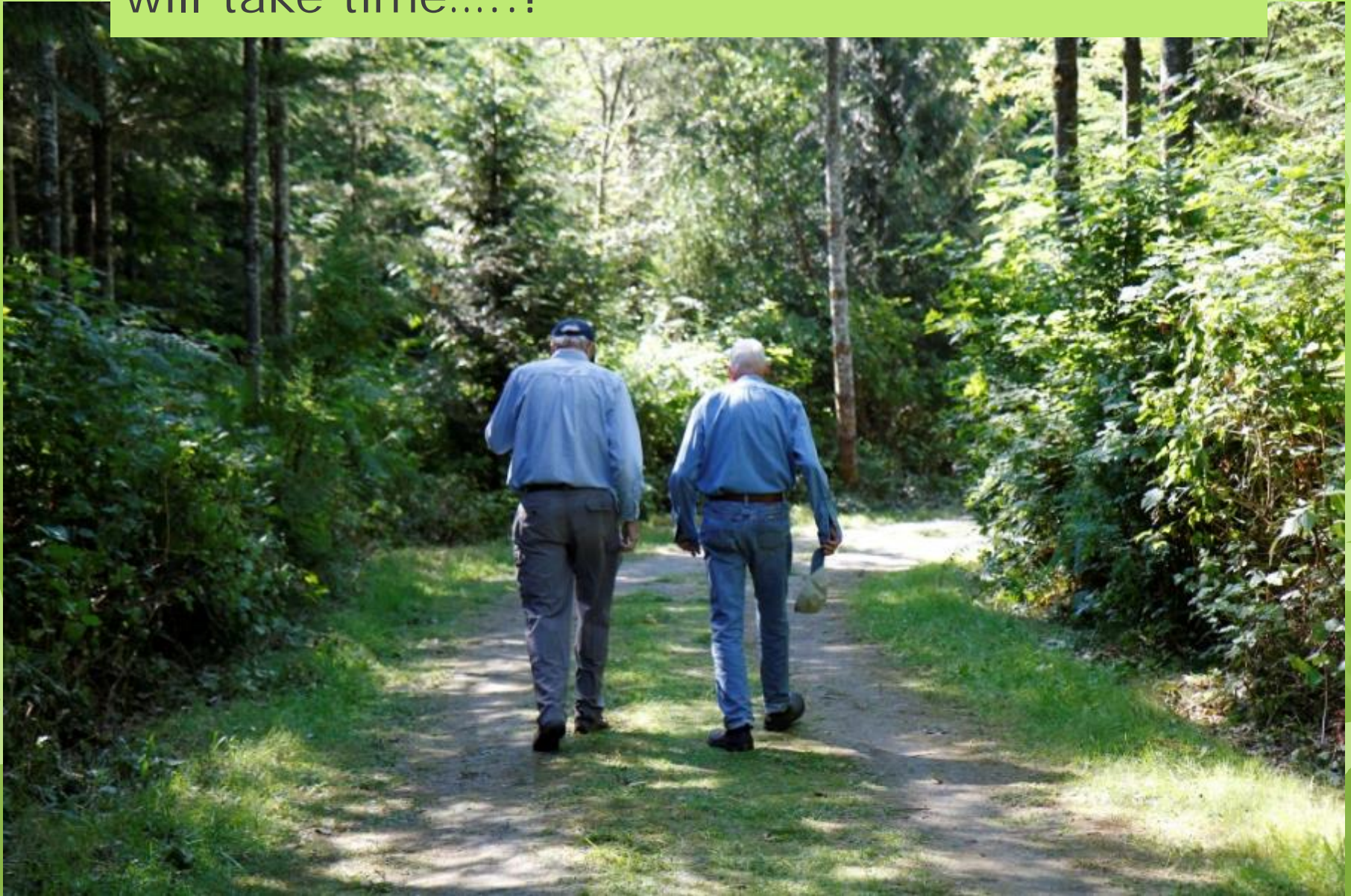
What does it need?



Goal: Diverse Stand meeting
your objectives



You decide how to get there. Remember it will take time.....!



Enjoy your Forest!!



THANKS FOR
CARING



A vibrant rainbow arches across a cloudy sky, spanning from the left edge of the frame to the right. Below the rainbow, a valley is filled with trees in various stages of autumn, with some showing bright yellow and orange foliage. In the distance, rolling hills and mountains are visible under a soft, overcast sky. The foreground is dominated by a dense line of evergreen trees, their green needles contrasting with the autumnal colors. The entire scene is framed by a bright green border at the top and bottom, with a white butterfly silhouette in the top right corner.

Thank you.



King of the Woods

I'm a woodpecker
King of the trees
I've got padded brains
I do as I please
Hey Hey
I'm the King of the woods

I'm a crazy red hammer
I make cavities
Homes for you
And homes for me
Hey Hey
I'm the king of the woods



I climb up the trees
Going tappy tap
Lookin for the insect cave
When I find em
I ax my way in
And Git em with my sticky
Sticky tongue
Yum!



I'm a woodpecker
King of the trees
I've got padded brains
I do as I please
Hey Hey
I'm the King of the woods

I'm a crazy red hammer
I make cavities
Homes for you
And homes for me
Hey Hey
I'm the king of the woods



I got rhythm in my bones
Going rappy rap
I drum in the highest
Place I find
I tap with my beak
I'm sychronized
And sometimes I sing
Just for fun!
Yeah!

(Break!)



I'm a woodpecker
King of the trees
I've got padded brains
I do as I please
Hey Hey
I'm the King of the woods

I'm a crazy red hammer
I make cavities
Homes for you
And homes for me
Hey Hey
I'm the king of the woods

**I'D LIKE TO
LITTLE
SONG**

SING A

ABOUT A GUY I ATE



True Bear

I been sleepin'
For four months
Man, I'm kind of a mess
Gotta get above ground
Gotta find somethin' to eat
I'm hungry
Hungry as a bear



**Got little round
Eyes and ears
A sleek
Shiny black coat**

**Yeah I look kinda cute
But I'm really ornery
And mostly
I keep to myself**



**Cuz I'm a bear
A black bear
The American bear
The True Bear**

**Ursus americana
I ain't no horribilis
Don't eat no bamboo
Don't sleep on the ice
Don't do no circus tricks**

**Cuz I'm a bear
A black bear
The American bear
The True Bear**





Ya'll got Yogi and Smokey
I don't look nuthin like them
They're in cartoons
Yeah, I go in the woods, (It's true)
Cuz I'm a bear
And I don't care

Crusin in the autumn sunshine
Lookin for something to eat
Old rotten carcass
Dry choke cherries
I don't care
Cuz I'm a bear

Ursus americana
I ain't no dang grizzly bear
Don't eat no bamboo
Don't sleep on the ice
Don't do no circus tricks

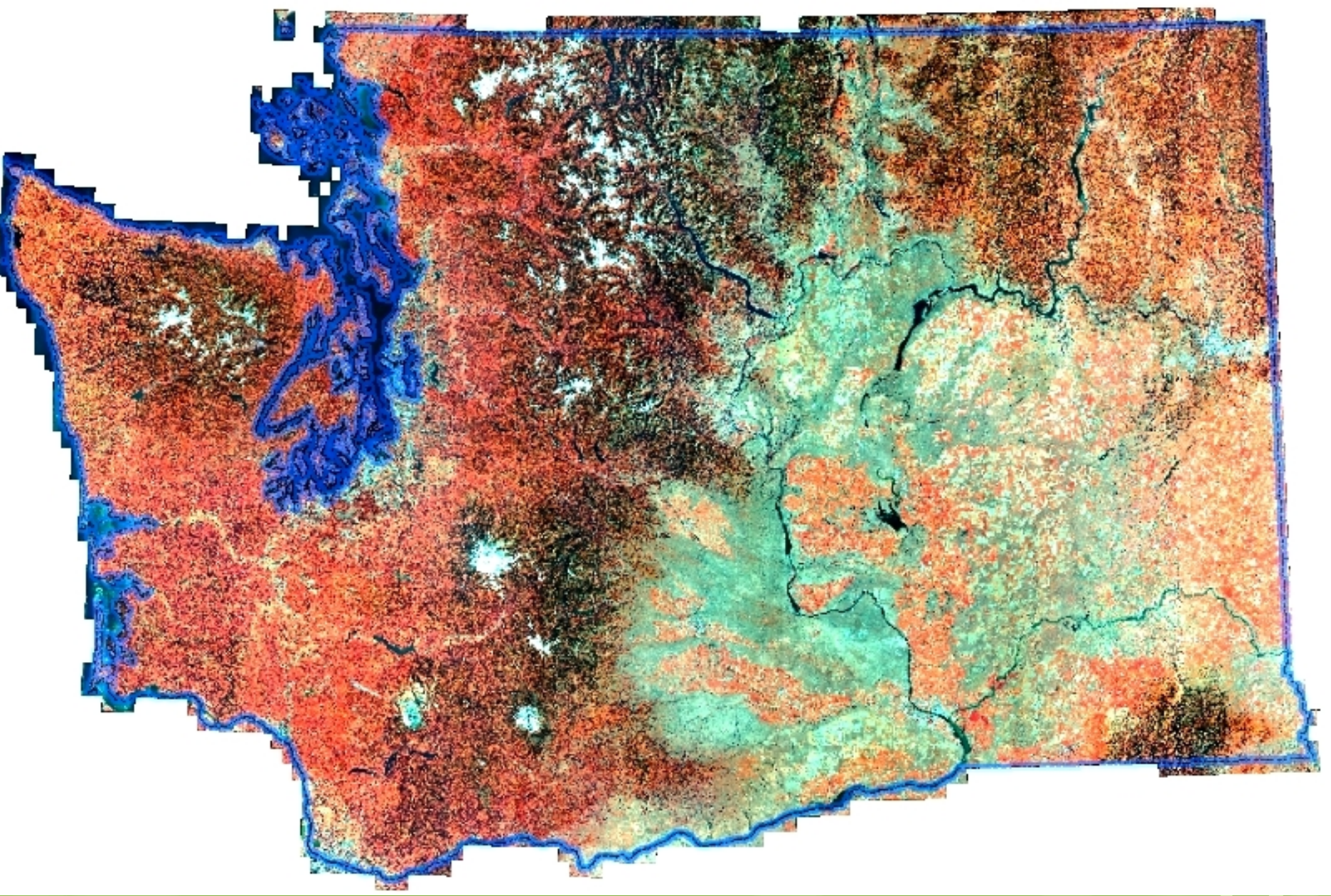
Cuz I'm a bear
A black bear
The American bear
The True Bear





Thank you





Washington state



Science!



Complex and diverse
habitat

Favor Plants that
bear mast (fruit)



Blackberry



Wild Rose

Wildlife Tree Case Examples

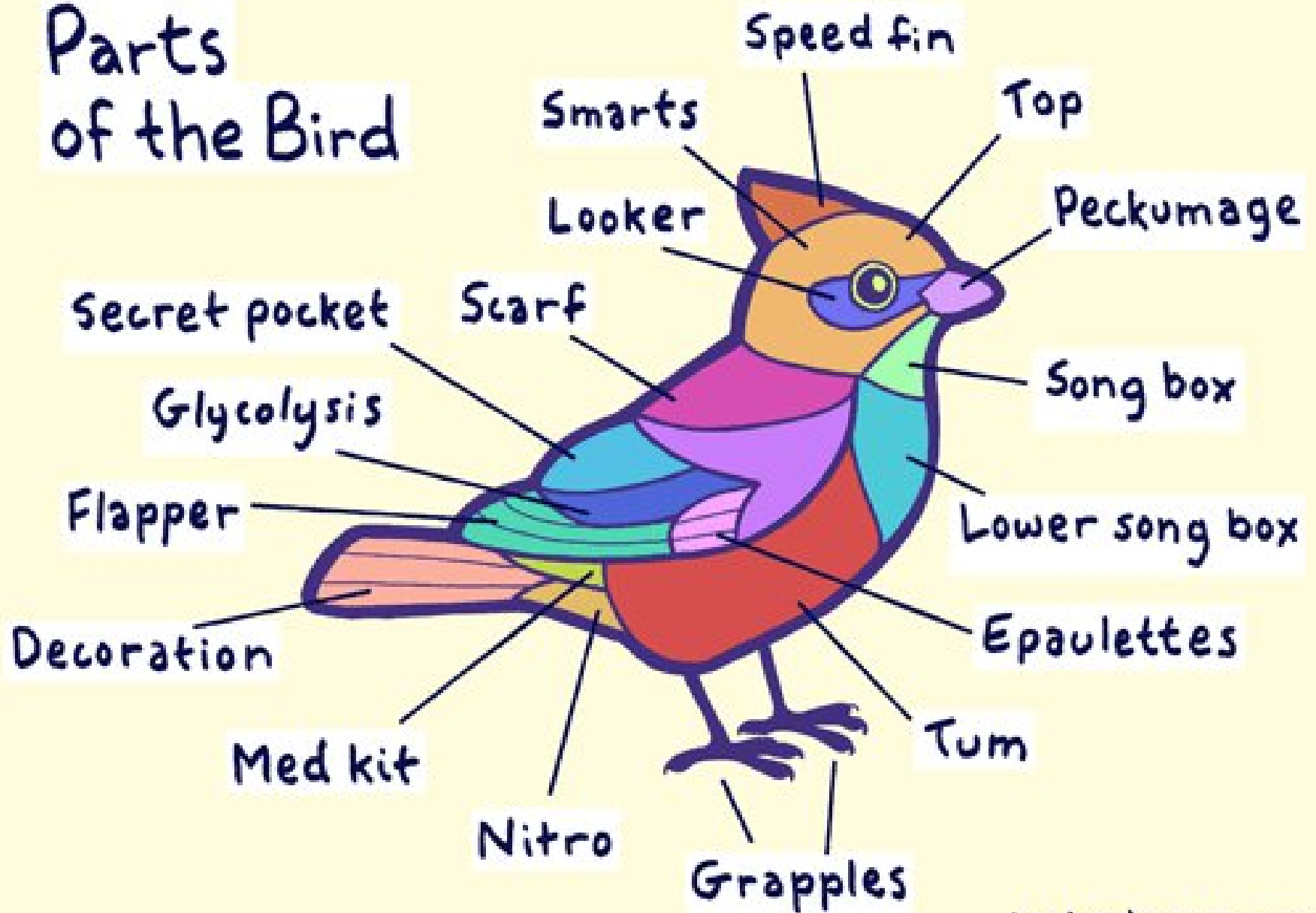


Millersylvania State Park

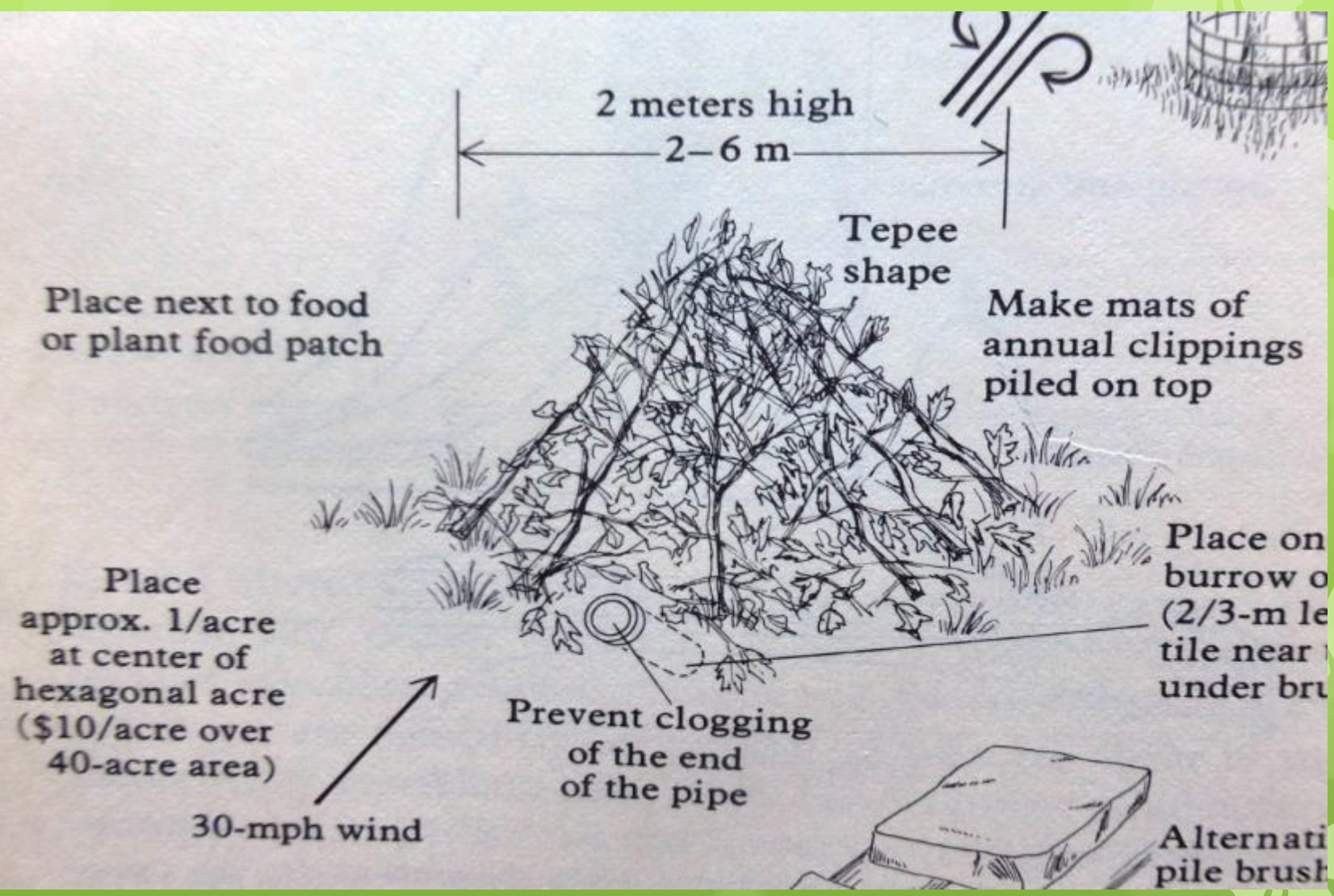


N. Cascades National Park

Parts of the Bird







Place next to food or plant food patch

2 meters high

2-6 m

Tepee shape

Make mats of annual clippings piled on top

Place approx. 1/acre at center of hexagonal acre (\$10/acre over 40-acre area)

30-mph wind

Prevent clogging of the end of the pipe

Place on burrow of (2/3-m le tile near under bru

Alternati pile brush



Whitetail deer

Size: 3' tall

Weight: 80 – 250 lbs

Food: Browse shrubs

Habits: Prefer dense mixed habitats. Brown on top, Bright white tail underneath
Single antler tines
Mostly non-migratory
Small home ranges.

**Thin appropriately, usually from below
– retain overstory trees**





Some "Wild Life" are dangerous!



Douglas fir



Dry - Eastern WA Ponderosa Pine and Douglas fir

Nuisance Wildlife

Two categories

Love em! Gimme More!



**Ick. Get rid of em
(or keep em out)**

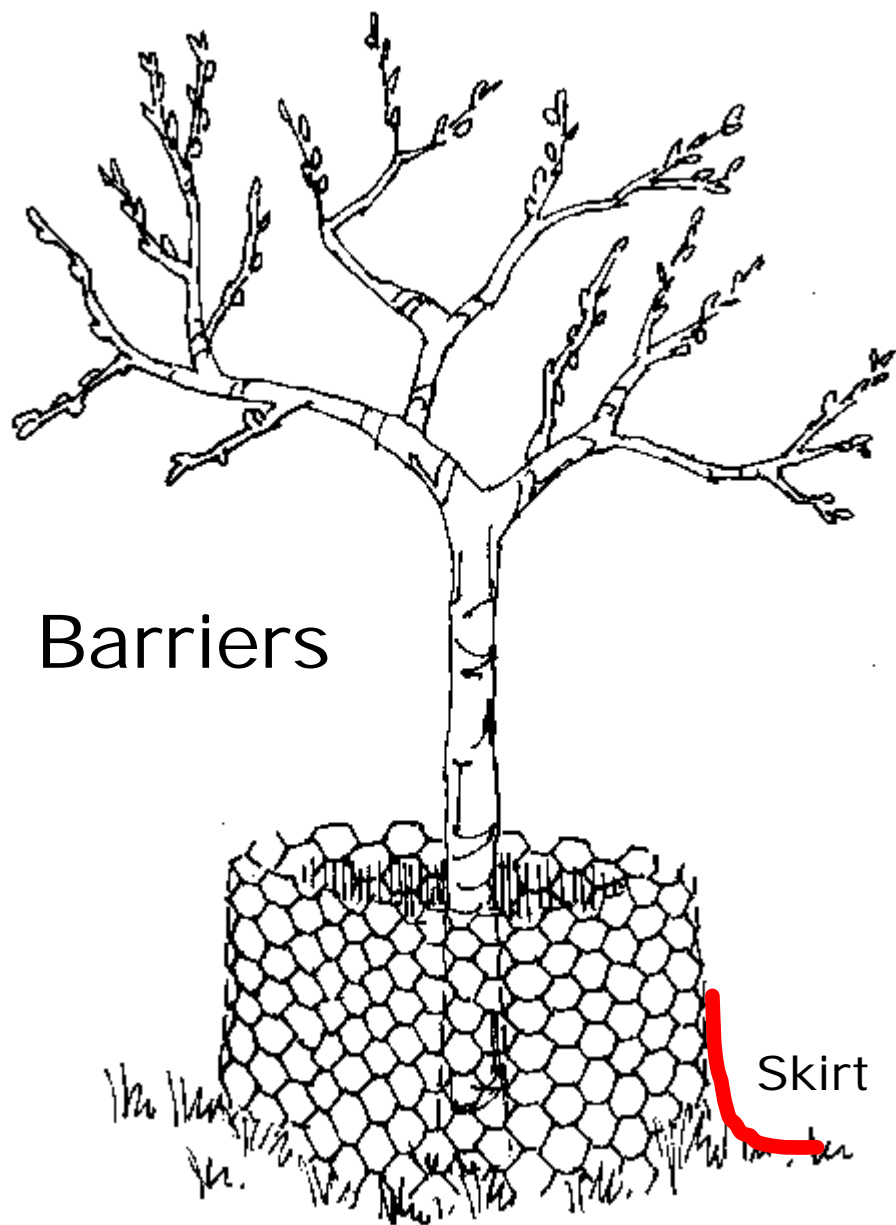


Problem Wildlife

What to do?

- Barriers
- Repellents
- Good habits
- Removal







**Bear
Damage on
saplings**



Animal Damage or nuisance wildlife



Armor, repel, tolerate or as a last resort, kill.

Hunting is a management tool



But won't address populations on
Small areas

Limiting Factor Examples:





Grouse drumming log



I love
woodpeckers
and
Bluebirds!!

Yeh.
me
Too.

LIFE

Streams and Fish



Critical habitat



Primary Cavity Excavators

Northern Flicker

