

# Western Washington Managed Forests - Wildlife Habitats

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# Dept. of Natural Resources Forest Stewardship Program

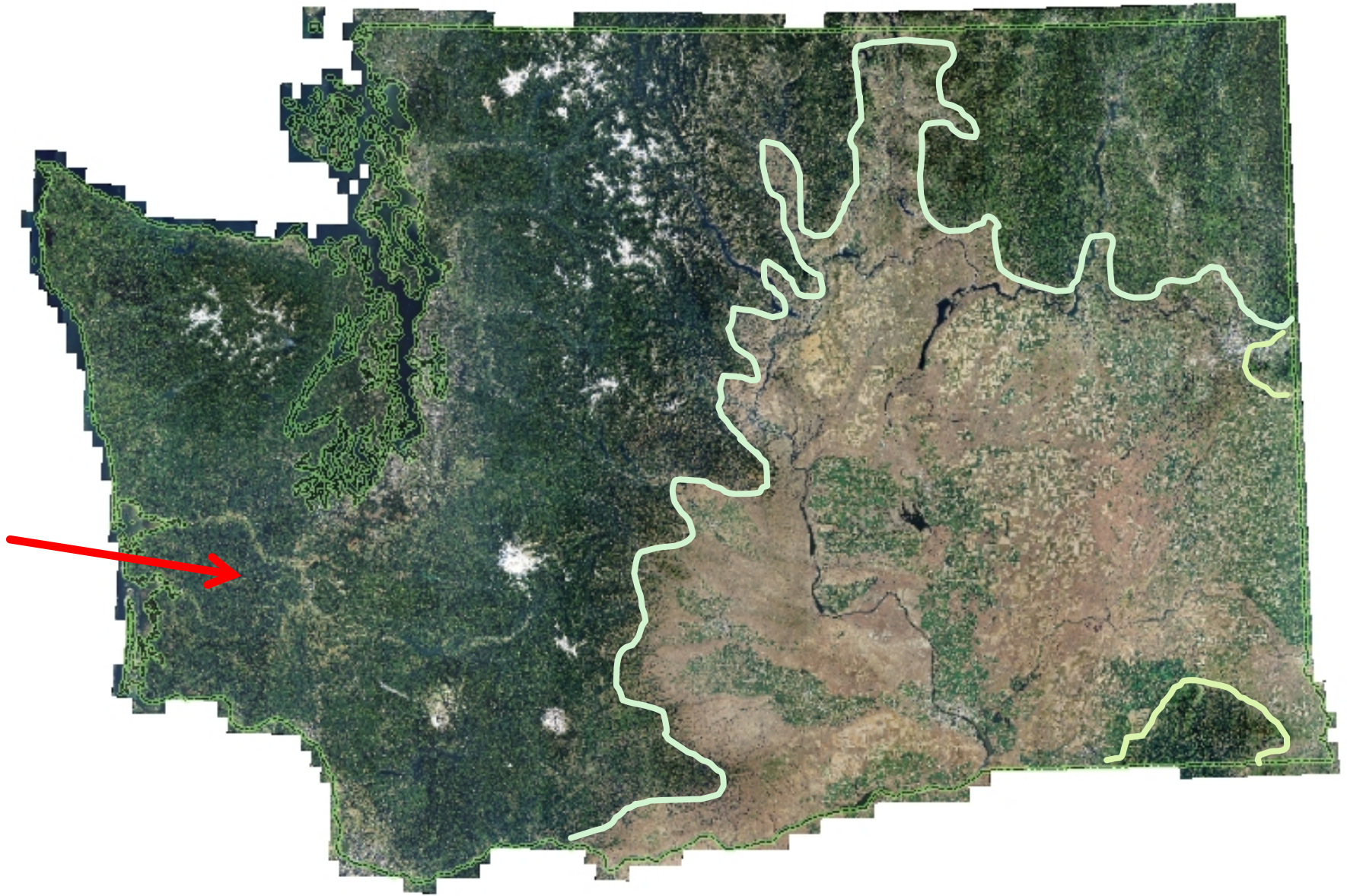


Ken Bevis, Julie Sackett, Boyd Norton and  
others

Landowner Assistance

Small Forest parcels – 5 to 2000+ acres





Washington state – forests



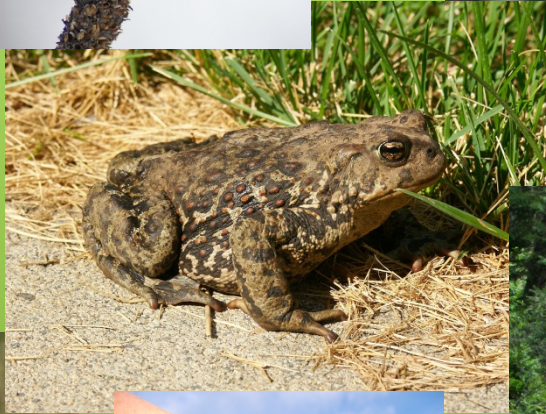
**Wildlife: Big stuff only Part of the story**



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Over 400 species of wildlife live in Washington's forests





**Most are  
Subtle and hidden**





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

Water

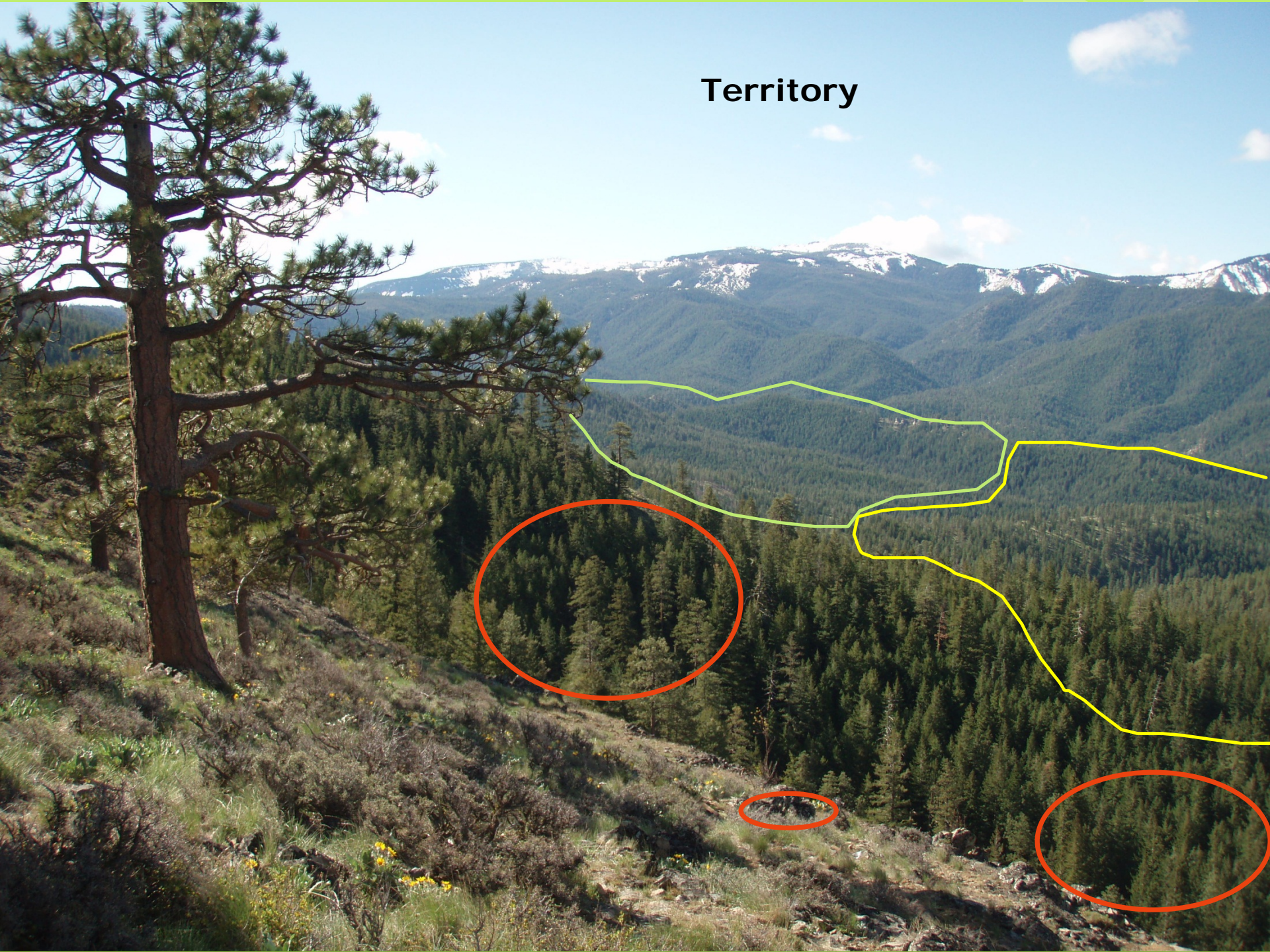


Cover

Food



**Territory**





## Habitat Limiting Factors



Ex. Pileated needs enough big dead wood to occupy a territory







# Forest Ecology



# Moist Forests

Hemlock, Cedar  
Spruce, Doug fir, etc







**Douglas fir**  
- Biological  
Potential to  
Be big and  
Long lived



# Dense Canopy





# Variable canopies





**All Forests are**

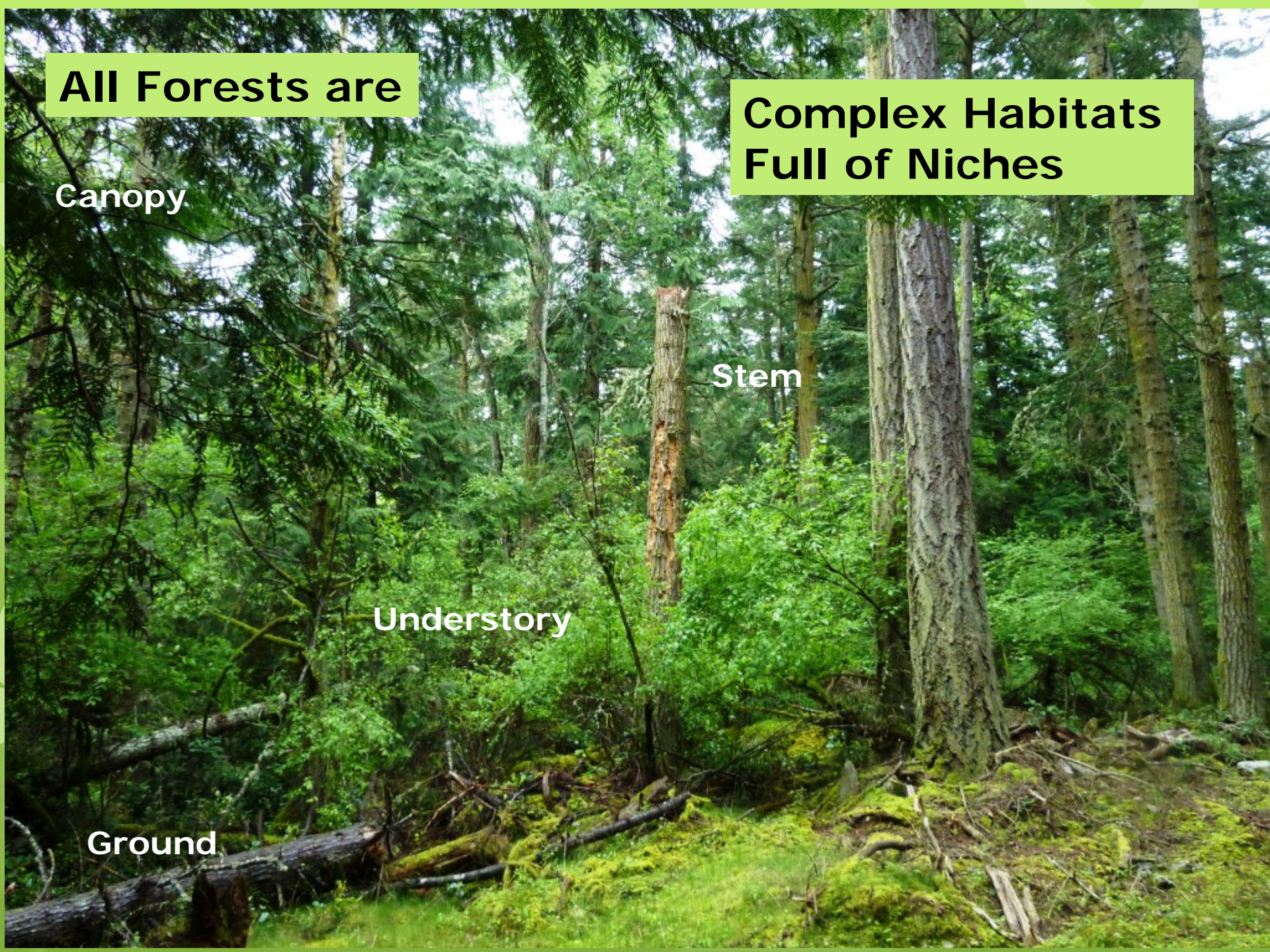
**Complex Habitats  
Full of Niches**

Canopy

Stem

Understory

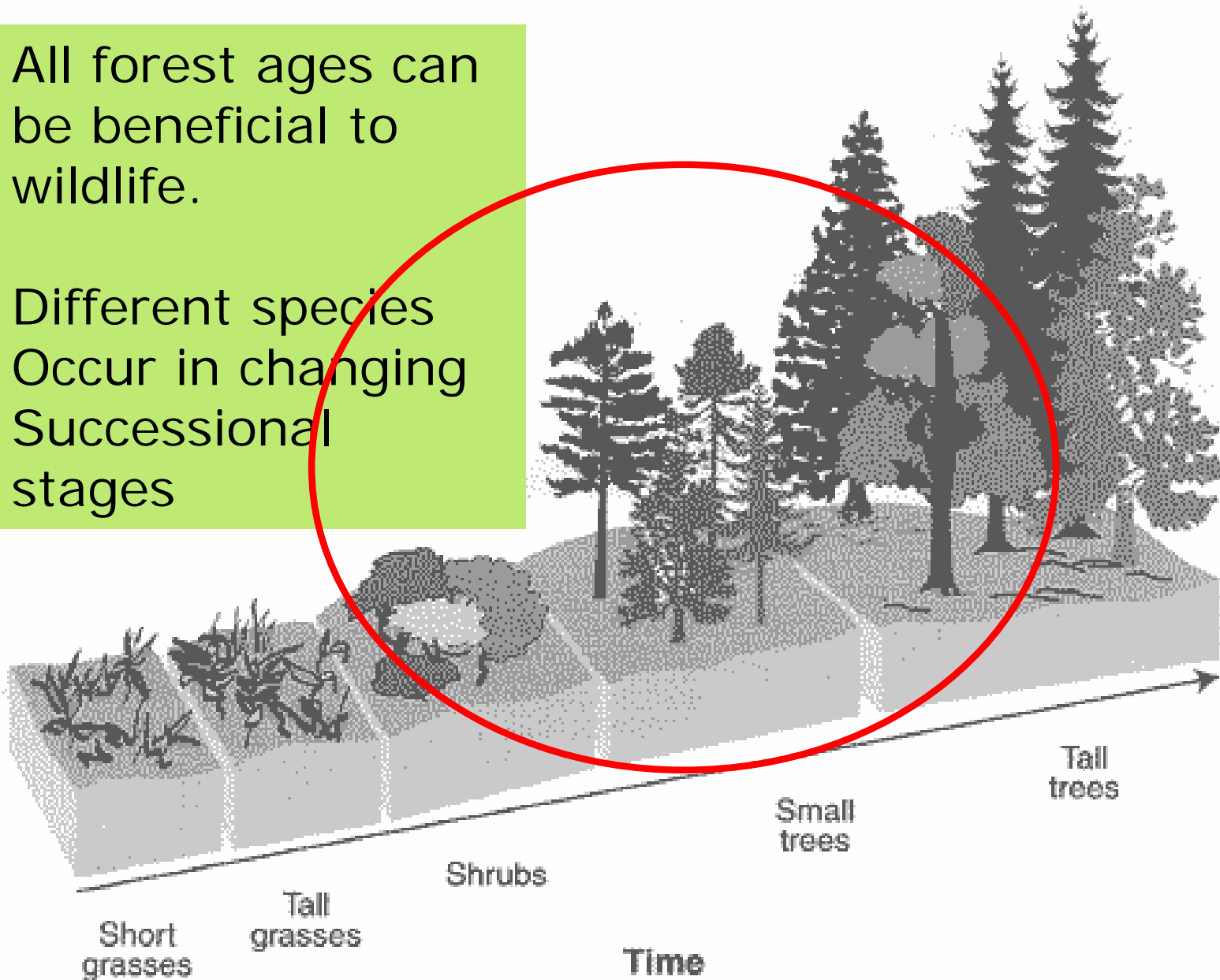
Ground





All forest ages can be beneficial to wildlife.

Different species  
Occur in changing  
Successional  
stages






# Natural Forest Ecology



Disturbance events leave behind wood



A photograph of a person standing in a forest. The person is wearing a green vest, black pants, and orange boots. They are standing next to a large, moss-covered fallen tree trunk. The forest floor is covered with ferns and other vegetation. A large, standing tree trunk is visible on the right side of the image. The text "wind throw" is overlaid on the image.

wind throw

APR 10 2002





Trees die and last

*For a long time*





**What is a tree?**





**Ecologically, Logging is a like a windstorm**

***Except some trees fly away!***





## Life cycle of dead trees



Hard snag



Becomes a soft snag



**Good  
Stuff!**



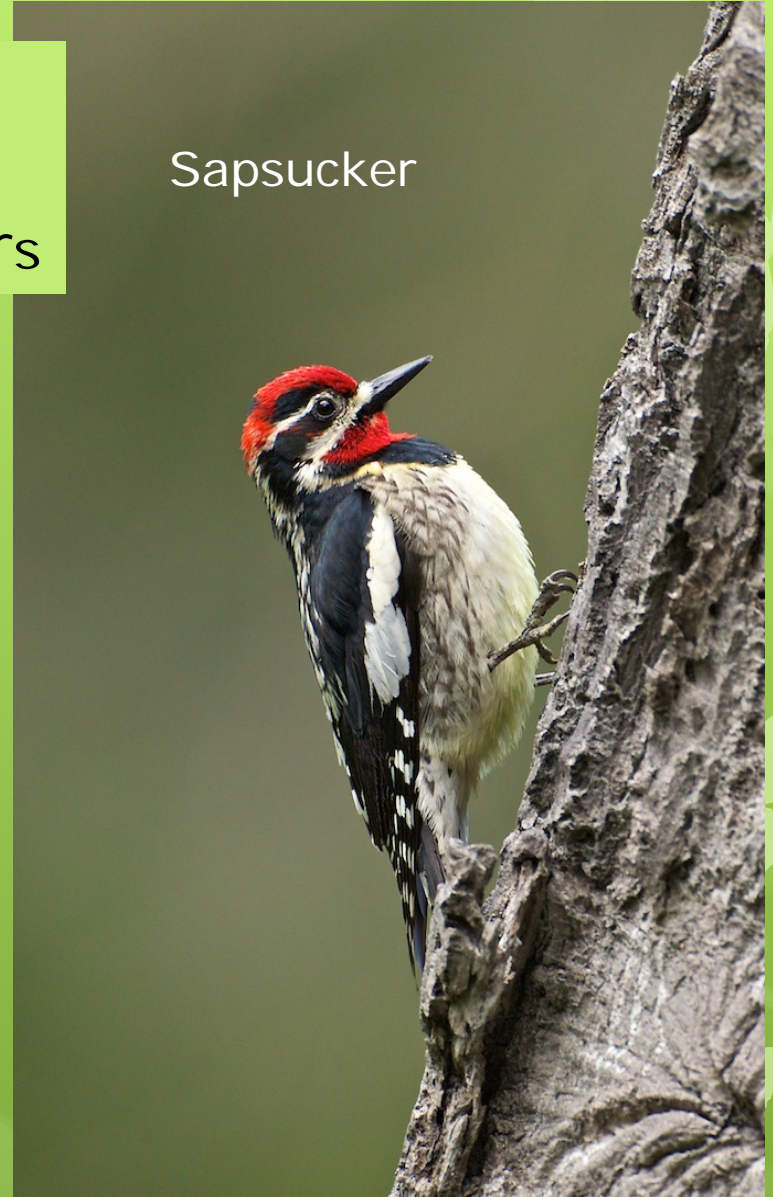


# Primary Cavity Excavators



Downy  
woodpecker

Sapsucker





# Pileated Woodpecker





It's Gotta stand long enough to get soft  
Enough for a woodpecker to dig it

## Nest Cavities







Pileated  
Woodpecker Nest  
Cavity





Prime Real Estate



Tree swallow



## Secondary Cavity Species

wren



chickadee



bluebirds





Barred owl



## Secondary Cavity Species



Saw whet owl






## Secondary Cavity Mammals

Flying squirrel  
Douglas squirrel  
& bats





A large, weathered log lies diagonally across a forest floor. The log is covered in moss and lichen, indicating its age. It is surrounded by lush green ferns and other forest vegetation. In the background, a dense forest of tall trees is visible. The scene is a natural, undisturbed forest environment.

Down Logs are  
Great habitat

Log down about 100 years



chipmunk



vole



## Down wood Habitat denizens

salamanders



Rubber boa



Garter snakes







***About 40% of forest wildlife depend  
On dead wood for critical habitats!***



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



Rotting wood  
Feeds the soil





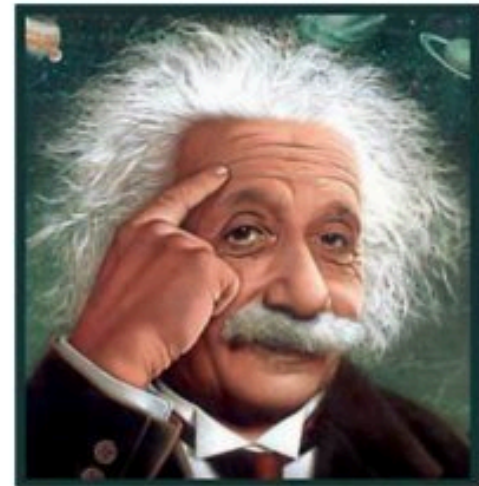
**The best habitats in forests  
are structurally DIVERSE**





**HOW TO BEST MANAGE FOR WILDLIFE HABITAT  
AND THUS SPECIES, DIVERSITY?**

# Information For Your Brain





# Habitat Management for diversity

First: Protect existing WATER features



Buffer streams  
And wetlands

Do good road maintenance



# Toolbox:

**Snags**

**Logs**

**Legacy**

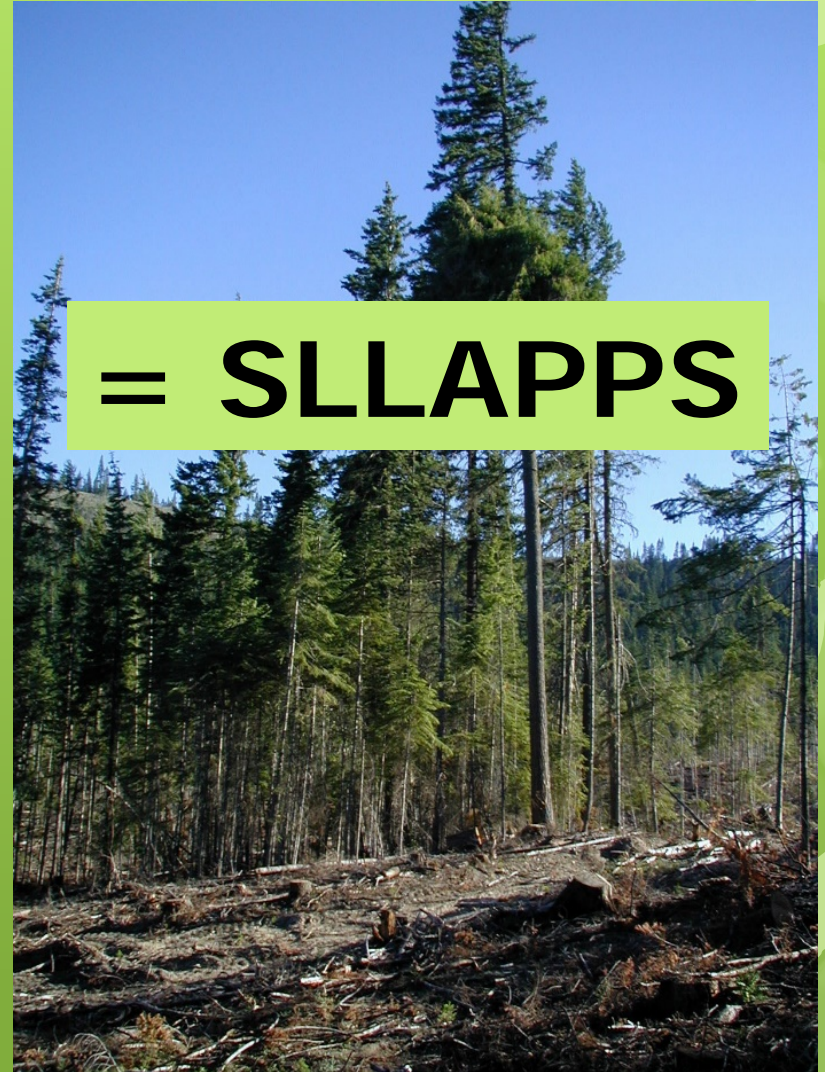
**Arrangement**

**Patches**

**Piles**

**Shrubs**

**= SLLAPPS**





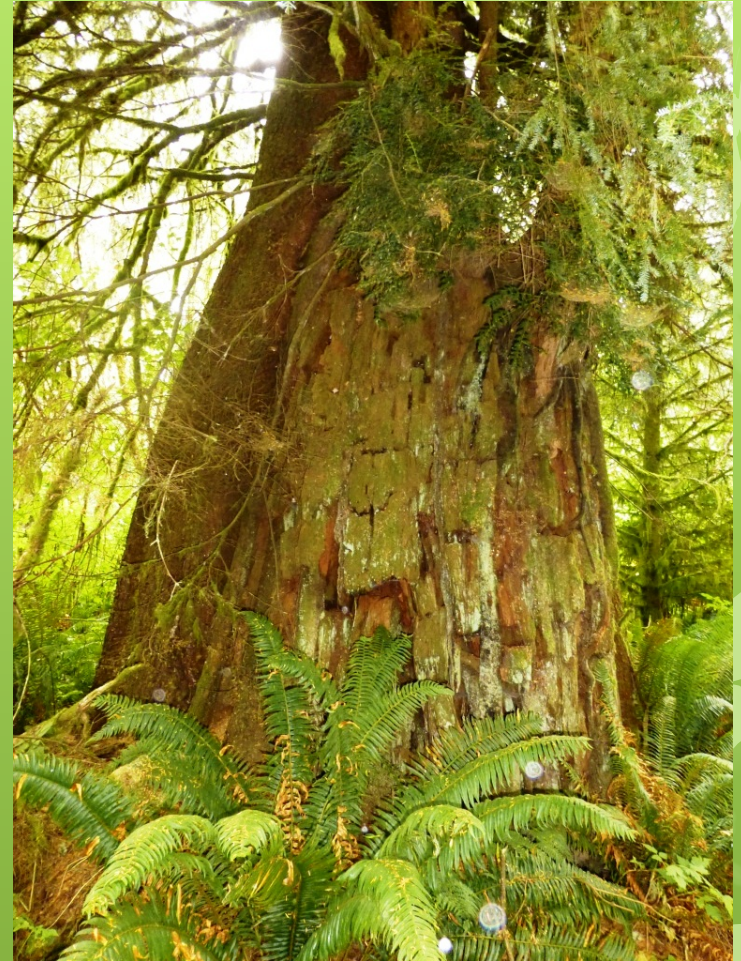
# SNAGS



Leave safe snags



Keep old snags



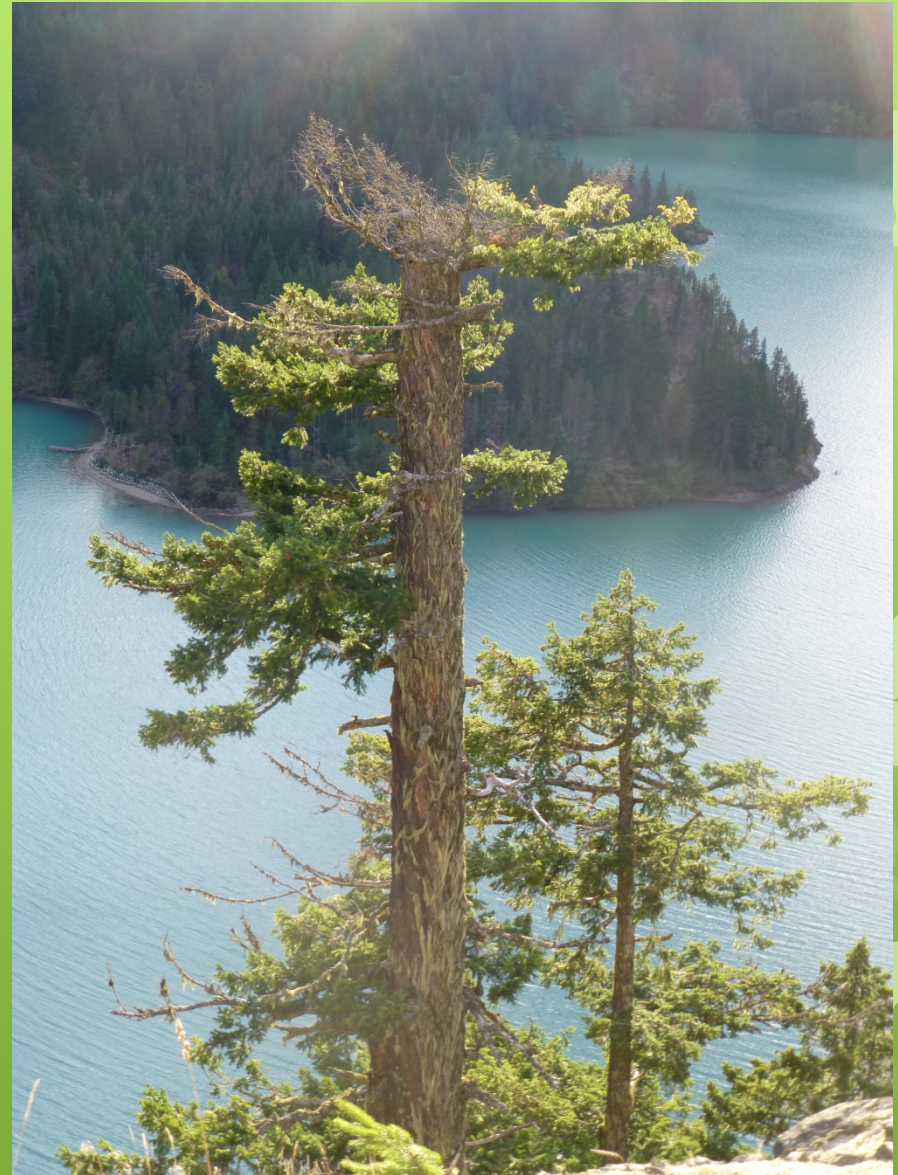


**Keep Live hardwoods with heart rots**





# Keep Live trees with broken tops







**Protect Logs**





**Old Logs  
Contain valuable habitat**







# Legacy



Old stump about 100 years old



**Keep some  
Legacy big trees**







## **Legacy trees For nest sites and Future snags**





# Arrangement – openings with edge





# Arrangement – small openings; 1-5 acres with edge





# Patches – vegetation intact





**Patch retention around  
Feature habitats.  
Keeps soil intact**





**Piles** are good habitat — also help deal with slash





# Piles





# Habitat Piles





## Habitat Pile in use







# Shrubs -

*Manage for those that bear fruit*

Cascara

Currant

Serviceberry

Chokecherry

Hawthorne

Wild Rose



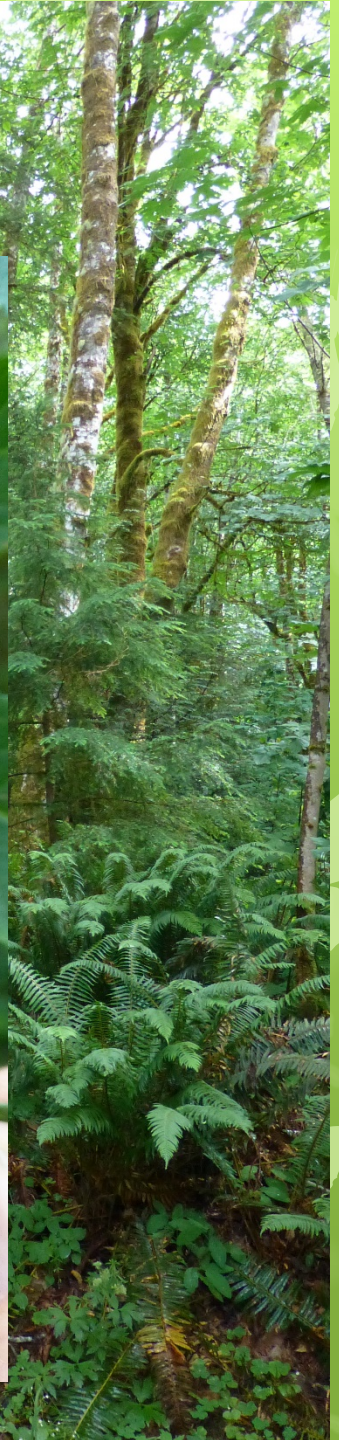
Elderberry



## Fruit bearing Shrubs









# What was that agin?

Snags

Logs

Legacy

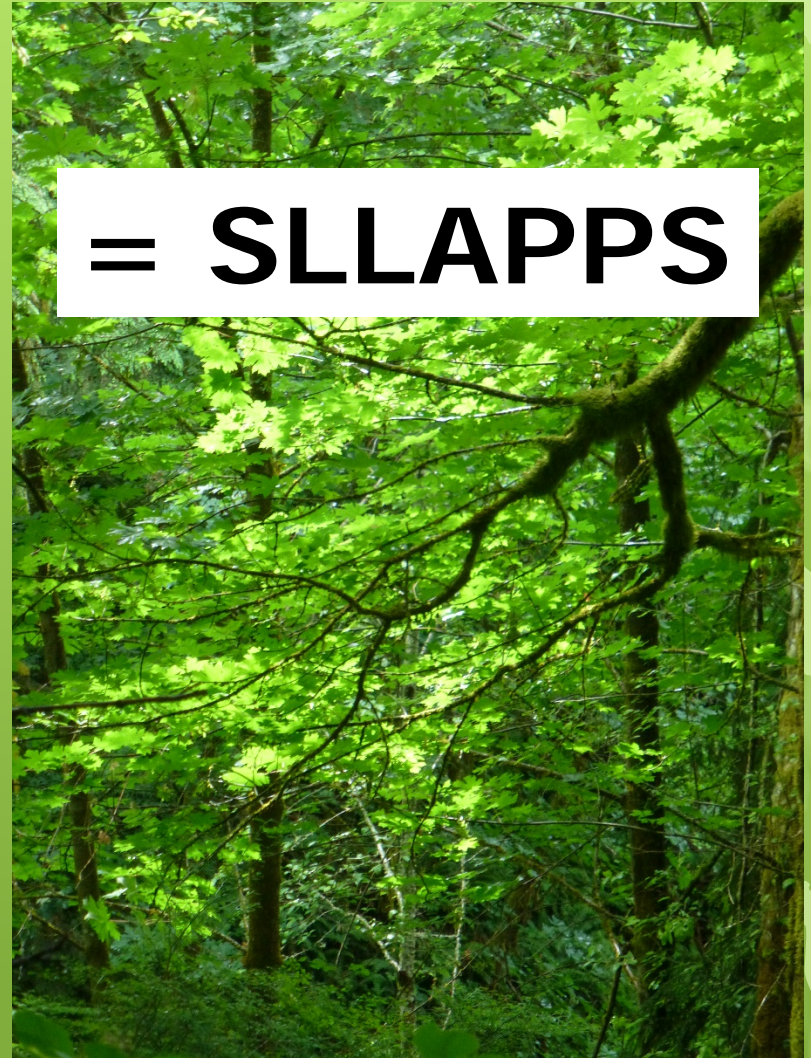
Arrangement

Patches

Piles

Shrubs

**= SLLAPPS**





# Active management Techniques





New  
Fangled  
Forestry tool  
My A@\$%!





Thinning can benefit wildlife





Closed canopy plantations are not  
Good habitat – lack diversity





Carefully thin to avoid blowdown







Feller Buncher machine

## Create Snags With Mechanical Harvesters





# Snag Creation with Hot Saw





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





**A Tall stump is  
A short snag**

**(6-8' minimum please)**





# Kill some trees (but leave em standing!)

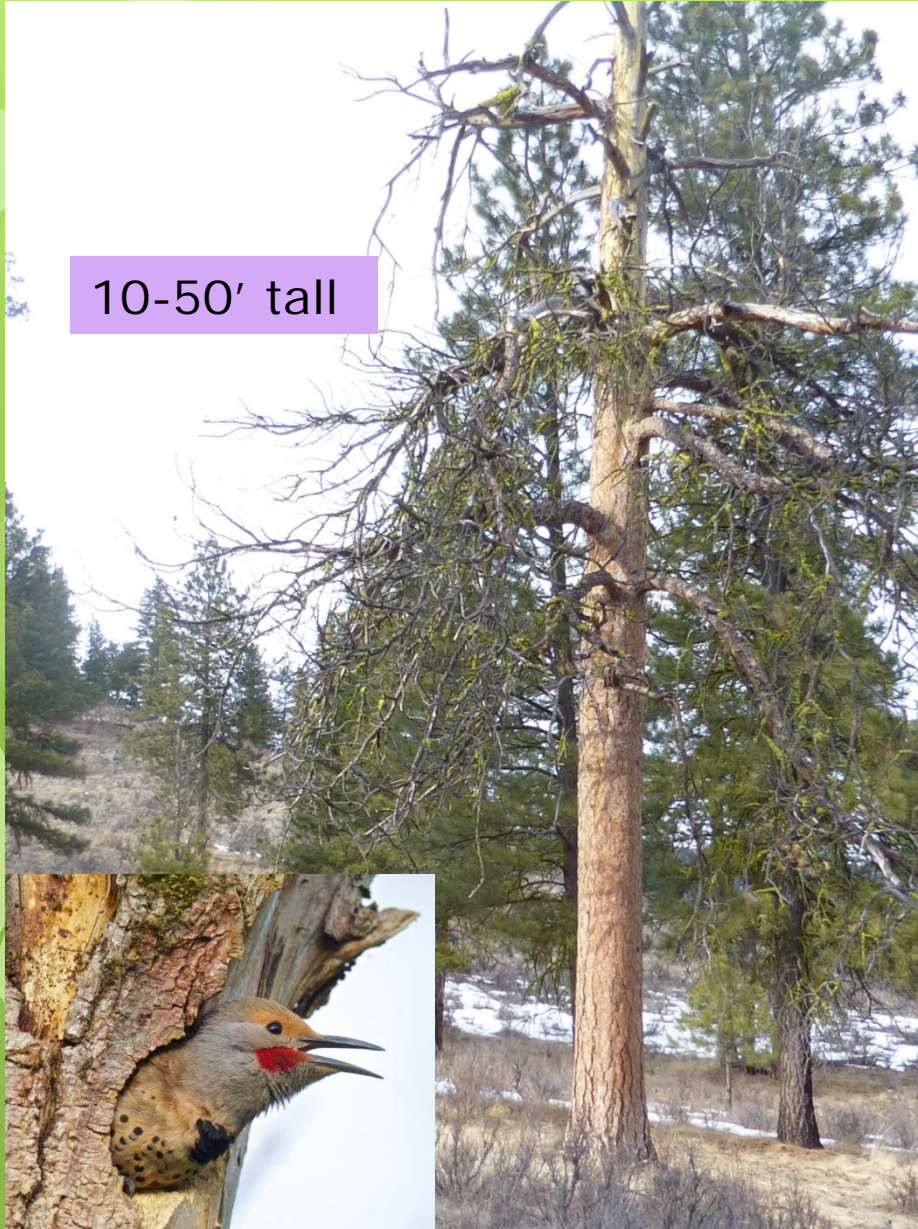
Snag creation w/ Girdling



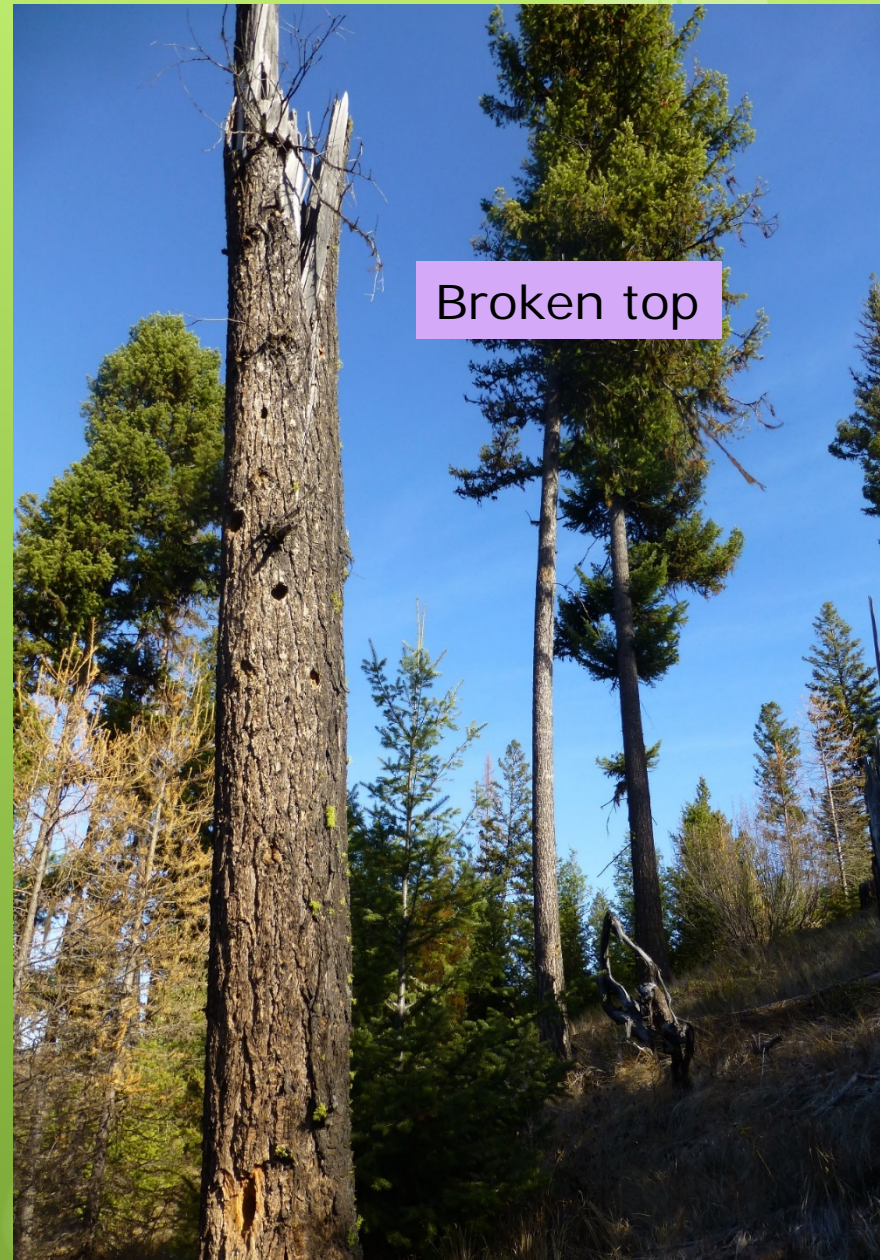


# The Best Snags

10-50' tall



Broken top





# Planting for diversity



cedar



Wild rose



## Nest Boxes work



Tree swallow







**Wood duck boxes near  
Small wetland**






**Ask yourself: Where is your  
Stand going? What do I want?**





A photograph of a lush, green forest. In the foreground, there are several large, moss-covered tree trunks and branches. The ground is covered in dense, green undergrowth, including ferns and other leafy plants. The background is filled with more trees, their leaves creating a thick canopy. Sunlight filters through the leaves, creating a dappled light effect. A yellow text box is overlaid on the right side of the image.

**Diverse stands  
= best habitats**



Imagine the next forest

.....







**Mostly, Enjoy your forest!**





**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  
Tappin' tappy tap  
Listenin' for an insect cave  
When I find that hollow sound  
I ax my way in  
And slip in my sticky  
Sticky tongue  
Yum!





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Homes for you  
And homes for me  
Hey Hey  
I'm the king of the woods





I got rhythm in my bones  
I'm synchronized  
I bang on the highest  
Place I find  
I play my licks  
I do my tricks  
I whack on my tree drum,  
And sometimes I sing  
Just for fun!  
Hey!



(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



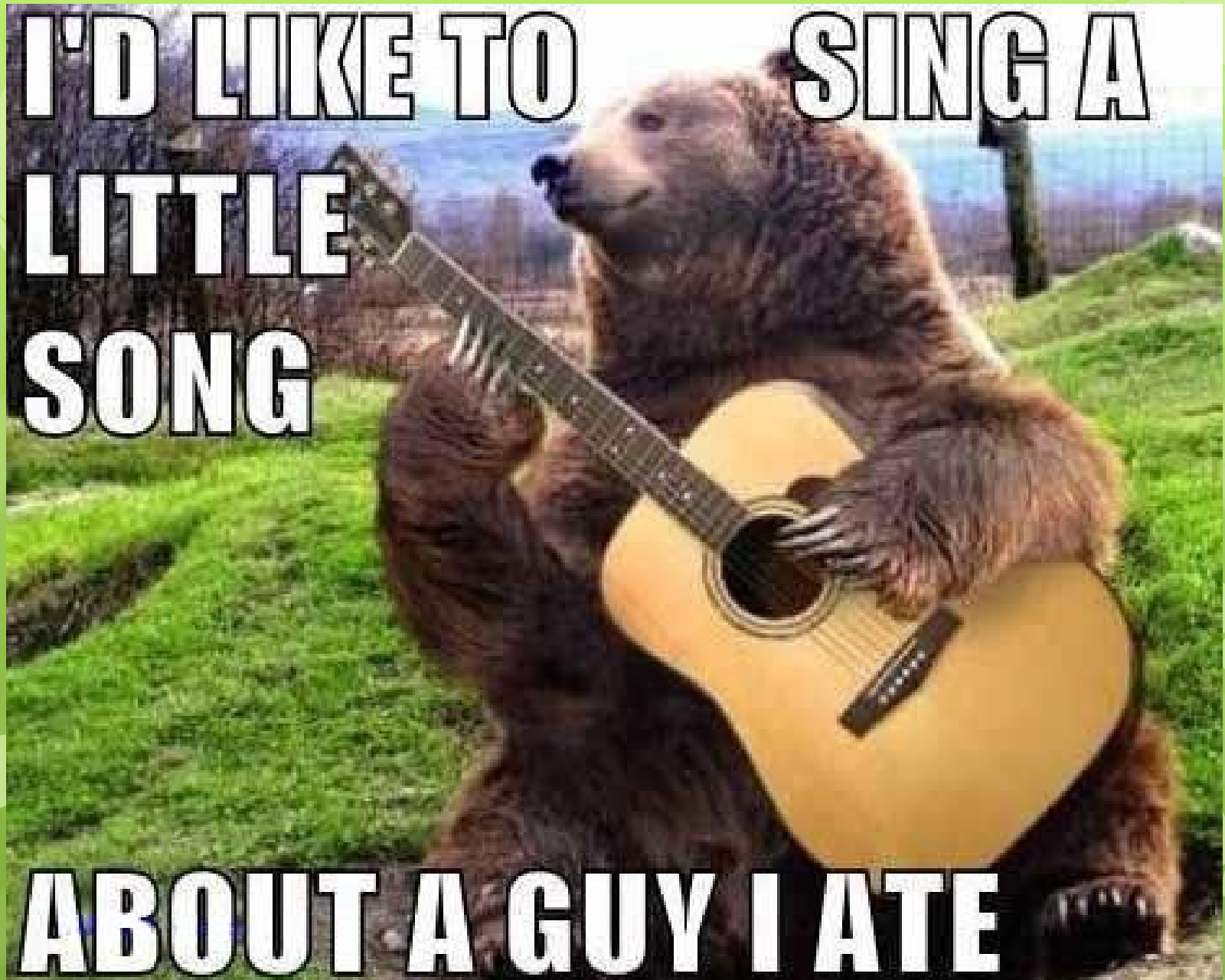




**I'D LIKE TO  
LITTLE  
SONG**

**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**





