



Before you start your walk, open your senses:

- Stop!**
- Don't look!**
- Just listen!**

How many different sounds can you hear?  
How far away are they?

How many different smells can you identify?  
From which direction are they?



# What made these holes?

Columbian ground squirrels made most of them. Listen for their high-pitched call. These animals live in groups in grasslands throughout the Inland Northwest. They hibernate up to 8 months of the year (starting as early as August!), so must gain lots of weight in the summer. Females enter hibernation later than males...do you have any idea why? (Consider the energy they need to raise their young.)



Several generations of beavers constructed dams on this stream. How many can you see? Beavers sometimes exhaust their food supply and move to another area. When the food supply grows back, another group of beavers might re-colonize the area.

Water ponds behind the dams...you can estimate the pond size by the width of the dam. How can a beaver's dam eventually result in a wet meadow like the one you see? (Think about particles in moving or still liquids.) Are the beaver still around or not, and how did you come to your conclusion?

What might the valley have looked like before the beavers built their dams? Big Meadow Lake works like a beaver pond, but the dam was made by humans!



Over time, in the absence of disturbance, different plants will move into (colonize) this field, and eventually the field will become a forest. The change in the types of vegetation is called succession. Plants associated with early successional stages require lots of sunlight, while those associated with later successional stages can grow in shadier conditions. Several examples of succession can be seen along the trail.

See the 2-needled lodgepole pine tree seedlings? Is lodgepole an early or late successional stage plant? (Hint: do you find young lodgepoles in the shady woods or in the sun?) Watch for other plants that are colonizing the field. What human-caused or natural events can keep an early successional stage from developing into a later successional stage?



# Pine trees



Serotinous cone



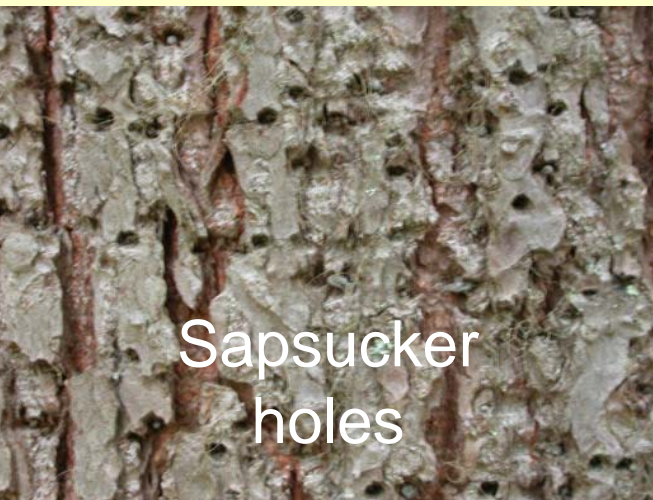
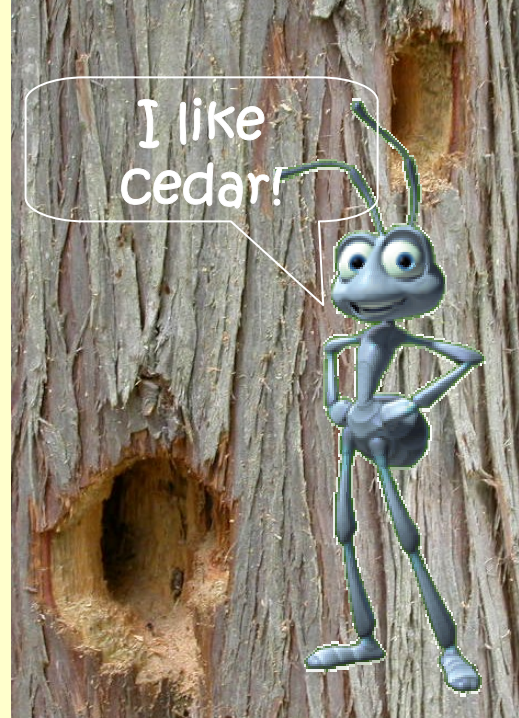
Non-serotinous cone

Most pine trees are early successional species whose seeds require light and open soil to germinate. Lodgepole pine grows where areas are disturbed, often by fire. Many of its cones remain closed until heated (upper drawing), while others open and release seeds without being heated. Which type of cone do you see on the lodgepole pines along the trail? Around here, lodgepole pine lives to be about 120 years old. What happens if no disturbance occurs?



# There's life in those trees!

Many species of wildlife live in the forest, and all leave some sign of their passing. Along the trail, some of the most visible signs are the workings of woodpeckers seeking insects. Look for various sized drill holes in the bark of trees, especially the elongated ones of the pileated woodpecker, the largest woodpecker in North America. Many cedars have decayed centers, which provide a home for carpenter ants and a snack bar for pileated woodpeckers...find a hole that has been visited for so many years that the tree has partially healed.



Sapsucker  
holes

A woodpecker's tongue is nearly 4 times as long as its beak...and much of it lies outside its skull!

