



Jeffrey Pine, a Forest Lifeline for Mountain Wildlife

Primary Theme: Jeffrey Pine, a keystone species of Mt. San Jacinto

Secondary Theme(s):

- Jeffrey pine provides food and shelter for a variety of mountain mammals and birds
- Birds and small mammals return the favor by disseminating pine cone seeds, thereby ensuring the lasting legacy of Jeffrey Pines atop Mt. San Jacinto.

Audience: Families, adults, teenagers

Objectives: Help visitors discover why Jeffrey Pines are so important to the health of the forest.

How will it be measured: At the end of the program, 50% of the visitors will be able to name two species that depends on the Jeffrey pine for food, shelter or health.

Resources Materials Needed: Pictures of Birds, Bird Guide Trifold, Binoculars

PROGRAM OUTLINE

Introduction

Welcome to Mt. San Jacinto State Park. My name is Aleta Walther and I have been a park aide at Mt. San Jacinto State Park for about a year. I will be your guide for this afternoon's walk: *Jeffrey Pine, a Forest Lifeline for Mountain Wildlife*.

On this walk we will discover why so many birds and animals depend on the Jeffrey pine for their survival.

Before we venture off on our walk, I have a few announcements.

- First, if you are around later this evening there is a wonderful campfire program taking place at the nature center at 6 p.m. This evening's topic is "*Birds Fly to Survive*."
- Secondly, see this great bookmark? You can have one of your own just by filling out a short survey about your visit to Mt. San Jacinto State Park. See me after the hike for a survey form.
- Also, feel free to ask questions during our walk. I will also linger after the walk for those of you who may have additional questions or comments.
- And in case you are wondering, there are no restrooms along the trail, but there are restrooms and a water fountain right behind me if you want to check them out now. I am going to start the hike in five minutes. Our first stop on the walk is about 50 yards up the trail so you should be able to catch up if we start without you.
- Lastly, today's walk is a 30-minute loop which will end right back here. Also, please stay on the trail. There is poison oak along the trail and I would hate for you to take home an ouchy, itchy souvenir from our park. Remember, leaves of three, leave it be.

Speaking of trails, Mount San Jacinto State Park has about 50 miles of hiking trails and is home to a variety of birds and mammals. We are not likely see a mountain lion or ringtail cat on the trail today, but we will see gray squirrels, chipmunks, lots of birds and maybe some deer.

Transition from Intro to Sub-Theme 1:

One of the missions of California State Parks is to provide for the health, inspiration and education of park visitors. So, let's get started. Let's get inspired. Let's explore why the Jeffrey Pine is a forest lifeline.

Body:

This ladies and gentlemen is a Jeffrey Pine, and if you look around you will see the species thrives on our mountain. Jeffrey Pines:

- may live for 400 to 500 years and attain immense size
- can grow up to 170 to 200 feet tall and 4 to 6 feet in diameter



If you can, bend over and pick up some pine needles: you will see that:

- The needles are blue green
- 7 to 11 inches long
- In bundles of 3, (hold up needles)
- The pinecones are oval and range from 6 to 10 inches long.

Now please place the needles and cones back on the ground.

Before we walk to our next stop, who remembers how many years a Jeffrey Pine can live? That's right four or five centuries.

Who remembers how many Jeffrey Pine needles are in a bundle? That's right, one, two three.

Transition from Intro to Sub-Theme 2:

OK, next we are going to cross the meadow to that large stand of Jeffrey Pines (point to stand). There we will discover why the Jeffrey Pine is so important to the creatures in our park.

Second Stop: Under the tallest Jeffrey Pine

Who wants to guess how tall this tree is? 180 feet, good guess, 200 feet, good guess. You are all close, but this tree is actually 235 feet tall and the tallest Jeffrey pine in Long Valley.

Now, what I would like everyone to do is to make sure your feet are flat on the ground. Are you stable? Now if you can:

1. cup your hands to your ears like this
2. Now look up toward the sky
3. Now close your eyes and listen up into the top of the tree
4. Listen closely. Don't talk. Just listen.
5. Ok open your eyes.
6. Who wants to tell me what they heard?
 - a. Yes, definitely birds singing. Does anyone know what kind of birds they heard?
 - b. Did anyone hear this bird call? That's the call of a mountain Blue Bird.
 - c. Did you hear this call? That's a Steller's Jay chatting.
7. What else did you hear?
 - a. A tapping noise? That's right. What do you think was making that tapping sound? That's right, a woodpecker.
 - b. Did anyone hear the gray squirrel scrambling among the branches, or the chipmunk scurrying across that dead log? **Point to log.**

Many of the birds and animals in our park depend on the Jeffrey Pine for food, resting, nesting opportunities and shelter from weather and predators.

1. The red-breasted Sap Sucker drills rows of holes in the tree's trunk, then "visits" them for the sap and insects caught in the holes.
2. The Hairy Woodpecker, Steller's Jay and Common Raven eat conifer seeds on the ground and insects they find scrambling up and down the bark.
3. Squirrels and chipmunks collect pinecone seeds and bury them to eat later.
4. Mule Deer will eat bark and pine needles in the winter when other food is scarce.

Let's look up into the tree one more time. See the holes in the trunk about 25 feet up? Those holes, or cavities, are home for a variety of birds, including Woodpeckers, Mountain Chickadees, and Western Blue Birds.

Great Horned Owls, Steller's Jays, Mountain Blue Jays, Coopers Hawks and Ravens build nests on the higher branches of Jeffrey and Sugar Pines

Look just above the holes and off to the right, you will see a big clump of leaves? That's a squirrel's nest.

The last thing I would like you to do today, is to give this pine tree a big hug, like this. Feel how jagged and hard the bark is and take a deep whiff of the bark. Who can tell me what the bark smells like? Vanilla, butterscotch, caramel. You are all right.

Conclusion

These gigantic Jeffrey Pine trees are just one reason why this mountaintop was designated as a state park. Within the state park, these Jeffrey Pines, and all of the species that depend on them, are protected from lumberjacks and hunters and for you to observe and enjoy.

Before I close today's program, I want to remind you to pick up a park survey form and hand it in before you leave today. Most importantly, thank you for allowing me to share with you some of the wonders of nature that make Mt. San Jacinto State Park so special.

In closing, remember the Jeffrey Pine is key to the survival of many of our mountain species. Without the food and shelter provided by Jeffrey Pines, many of our animals and birds might disappear from the mountain. Now you know why, the Jeffrey Pine is a forest lifeline for mountain wildlife.

Bibliography,

Ronald M. Lanner, *Made for Each Other, A Symbiosis of Birds and Pines*, Oxford Press, 1996

USDA Online Plant Reference Guide: http://plants.usda.gov/plantguide/pdf/pg_pije.pdf

U.S. Forest Service Online Resource, "Jeffrey Pine Shrubland":
http://www.fs.fed.us/wildflowers/beauty/serpentine/communities/jeffreypine_shrubland.shtml