

# Philpot Creek Interpretative Trail

Hayfork Ranger Station - Shasta-Trinity National Forest



**On a scorching, windy day in August, 1987,** a freak lightning storm triggered a fire event that would last for several months. That afternoon stands in everyone's memory as a devastating experience. Despite the valiant efforts of the local fire organizations and community, vast amounts of the established and growing forest surrounding the Hayfork area were destroyed.

The Philpot Creek interpretative trail passes through a forest that was disturbed by the fires of 1987. As you explore the trail you will discover how a mixed conifer forest regenerates naturally and with man's help after a wildfire. The forest that you now see has evolved over many years and fire has played a big role in defining the composition of the plants and the animals that occupy this ecosystem.

## Begin

As you walk to site 1 you will notice a variety of vegetation. Various elements have cooperated over the years to form a healthy community of living and non-living things, each interacting with the others. Douglas-fir, ponderosa pine, maple, madrone, oak and alder are the major tree species found in this forest.

## Site 1 to Site 2

As you approach site 2, see if you can explain how fire creates a mosaic pattern on the landscape. In some areas fire burns everything in its path; in others it skips from one cluster of trees to another. Fuel, oxygen and heat are the three elements that influence a fire's burning behavior.

## Site 2 to Site 3

On your way to site 3, you can feel the layer of litter (duff) from trees and plants covering the forest floor. Duff acts as a protective barrier against erosion, especially on hillsides. As the material that makes up the duff layer decomposes, essential nutrients are released for plant growth.

## Site 3

Look at the Douglas-fir at site 3. Why do you think it is weeping sap? Trees damaged by fire are prone to disease and bug infestation. The tree, trying to heal itself, produces the sap that you see running down its bark.

## Site 4

Site 4 is a rocky formation made up of chert. At one time it was the ocean floor, but after numerous geological processes it was exposed as a rocky outcrop. The local Nor-Rel-Muk band of the Wintu gathered chert here to create arrowheads and spearheads for hunting game.

## Site 5

Windfall (trees blown down by the wind) can be seen at site 5. The stability of the tree is weakened when fire burns its roots. When a gust of wind occurs trees can be torn from their roots and fall down.

## Site 5 to Site 6

Walking to site 6 notice how the fallen trees litter the drainage area of the creek. This scattering of trees, while messy, is a natural pattern in the forest's watershed and helps protect the creek from erosion. Bugs, animals, plants and fungi also take advantage of the decomposing logs.

## Site 7

Do you see the rocky formation at site 7? The intensity of the 1987 fire destroyed the tree tops and many plants in the forest, revealing natural features that had previously been covered. What other things have been exposed for us to see?

## Site 8

At site 8 plantations, or trees planted by man, help regenerate the forest. The forest was severely damaged by fire in 1987 and no seed trees were left to begin the natural cycle of recovery. Through man's stewardship the forest can recover at a faster rate and provide more uses.



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Revised: 4-07

## Site 9

Across the creek at site 9, big leaf maple trees can be seen. Can you imagine the sprouts of the maple poking through mounds of ash two weeks after the fire? A deep root system and the ability to sprout from its crown are fire traits that the maple has adapted. These traits help maple to sprout quickly in the post-fire community and provide cover for other plants and animals.

## Site 9 to Site 10

Look at the snags, or dead trees, as you walk to site 10. Do you notice any places where animals have made their homes? The habitat created by dead trees is essential for the growth of healthy timber stands. Mosses, fungi, and lichens break down dead material and reintroduce nutrients into the plant community life cycle. Many birds and animals are attracted and use the snags for homes.

## Site 10 to Site 11

Approaching the area of the most severe burn (site 11), you will begin to notice thickets of brushy plants. Yellow star thistle, bull thistle, Ceanothus (also called deer brush or wild lilac) and California hazel establish themselves in disturbed areas after a fire and pave the way for other plants to follow.

## Site 12

Around the bend from site 12, on the ground, is the wild ginger plant. Ginger emits a spicy fragrance when its leaves are rubbed. Another plant of interest is the horsetail fern. The horsetail fern is a prehistoric plant that has acquired certain fire traits that has helped it to survive. The horsetail's roots are very deep and the plant itself is constructed of heat tolerant silicone instead of cellulose as are most other woody plants.

## Site 13

Douglas fir, located at site 13, is probably the most abundant tree in this forest. The Douglas-fir is one of the world's best timber producers and yields more timber than any other tree in North America. It can survive moderately intense fires because it has acquired thick corky bark on the lower trunk that protects it from heat damage. When trees are killed by fire, wind dispersed seeds from Douglas fir trees in other sites help to regenerate the burned areas.

## Site 14

At site 14, elementary students in the "Adopt-A-Watershed" program have planted Douglas fir seedlings to assist the forest and watershed in the recovery process. Look at the growth since being planted in 1988!

## Site 15

Recovery at this site is an important factor in maintaining the quality of the watershed. Watershed specialists build check dam structures in the stream channels to minimize loss of soil, deterioration of water quality and threats to life or property in the first winter following a wildfire. The check dams also prevent sediment from entering the spawning gravels in the tributaries and main stem of the South Fork of the Trinity River.

## Site 16

Can you find evidence of previous burns at site 16? Trees that have survived through previous fires may display fire scars (where the bark was damaged by fire). By counting the rings of the tree stump you can determine the age of the tree, times of fast growth and approximately when the tree was exposed to fire.

## Site 17

A cycle is a change that brings us back to where we started. While site 17 looks desolate now, it is beginning to regenerate a conifer forest. Can you imagine what a healthy and vigorous forest might look like in 50 years? In 100? In 200 years?

## Site 18

Everything in nature has its part to play in the continuing cycle of life and death. At site 18 "Wildlife Trees." Snags or decomposing logs have been left to provide homes for a variety of plant and animal life. What kind of plants and animals do you think they attract? Do you see any evidence of animal use?

## Site 19

On the one hand, it can be said that 1987 fires destroyed this forest. On the other, it can also be said that it created a new habitat full of rich and diverse species. The waterfall at site 19 reminds us that as one story ends another begins.

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