Welcome to the Trail of the Ancient Dwarfs

Stanislaus National Forest

The Trail of the Ancient Dwarfs is a magical place where the forces of nature and humans merge. Natures forces have shaped this landscape, the shape of the rocks, soils, and trees are a result of the effects of millions of years of geologic forces, weather, and erosion. Humans too shaped this landscape . One can find evidence in the rocks, and soils that the Me-wuk people have lived in this area for over 15,000 years. Like a lightening bolt , everything changed. People came from all over the world and changed this landscape even further. Here on this trail you will see evidence of that, the Old Mono Highway which served as a route for wagons first then cars was carved into the mountain. As you walk take notice of both nature and human influence on the landscape.

This trail starts on the other side of Niagara Creek. **Please cross the creek by foot. Be careful—if the creek is too high do not cross. NOTE: The old bridge has been condemned it is NOT safe to cross.** The interpretive trail starts after a short walk to the start. The walk to the start of the is 0.42 miles and the interpretive trail is 0.46 miles. Round trip is about 2 miles.

1 The Old Mono Highway

Keep a sharp eye out for the Model A's! Many passed by here once. Originally built as a toll road for wagons in the 1860's, it fell into disuse shortly after completion—when the boomtowns of Aurora and Bodie to the east went bust. About 1900, the state took over maintenance of the road. The road was partially oiled and made passable in the '20's. Over the years, it has been realigned into today's Highway 108, seen over the bank to your left. Some old stretches like this remain. The original wagon bed can still be seen from the highway on Sonora Pass. Look up to see if you can find any insulators from the old telephone lines.

2 Bench Mark

Take a guess at the elevation of this granite rock. Now, peek around the left side and check your estimate. The white streak below the "Bench Mark" has been caused by corrosive chemicals killing lichen on the rock's surface. This benchmark was installed in1896! Most benchmarks were set by the US Coast Geodetic Survey. They can be cross referenced on the USGS or NOAA websites.

3 Soil Builders

Do you see the various colors on this and other boulders? These Lichens, a fungus and algae growing together in a beneficial partnership called symbiosis. The fungus provides structure, absorbs moisture from the air and derives mineral salts from the rock's surface. The algae makes enough food for both plants. Lichens produce acids that help decompose this granite rock into soil.

4 The Toadstool

Millions of years ago, a silent pool of fire lay deep, its power caged by the frozen crust of the earth. With no escape, it hardened to a massive slab. Later, erosion and the great uplift that formed the Sierra Nevada exposed this 400-mile-long batholith. A portion of that granite monster stands here, shaped by stress and erosion. Notice the fracture plane through the middle. A portion broke off recently and slid to the ground. The evidence is the whitish, lichen-free surface of the fracture.

USDA United States Department of Agriculture
Forest Service Pacific Southwest Region
Stanislaus National Forest www.fs.fed.us/r5/stanislaus
3 Forests interpretive association
Caring for the Land and Serving People"

5 Powder Monkey

"Fire in the hole!" came the cry and people ran like lightning. The "powder monkey" was about to move the mountain. The blasters set their charges back in the 1860's by placing powder in the hole made by a hammer and drill. You can see half of this hole grooved in the rock before you. Across the road is the other half. People, in some ways, may be the most efficient and lethal eroder, for here, in an instant, occurred what nature takes thousands of years to accomplish.

6 Of Wood And Stone

Phototropism is the growth of an organism in response to light, motivates this Jeffrey Pine upward. But once, when young, its path was derailed by stone. Thigmotropism, a plant's response to solid objects, redefined this Jeffrey's way to the sky. Much of the distortion seen here and elsewhere on the trail is partly due to this process. As it grows in diameter, the Jeffrey pushes against the rock, a deforming struggle that will continue throughout the tree's lifetime.

7 Stone Art

Look back toward the last stop. Notice the rockwork along the roadbed. Laid without mortar, this type of construction was used on much of the old wagon road and obviously involved considerable labor, especially back in the 1860's.

8 The Rock Breaker

As fractures develop in stone, small particles of soil accumulate there. Later, a tree seed may land and germinate. Its roots work down the crack in search of water and other nutrients. As this dwarf Jeffrey pine grows, it will no doubt help wedge the rock apart. Notice the fracture planes in the granite behind and how a section has slid out in the past. Perhaps it was used in the construction of this road.

9 The Fool Makers

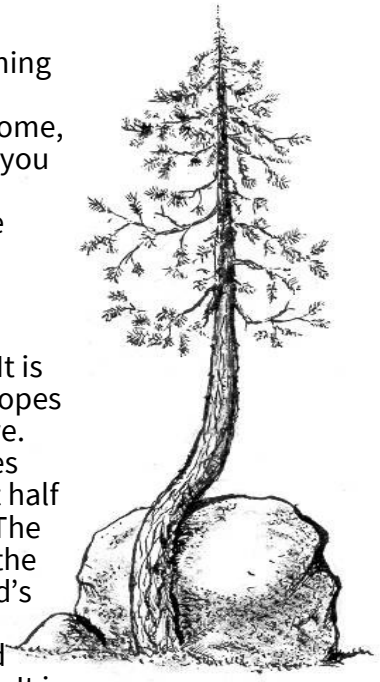
Granite varies in texture and mineral composition. These rocks were probably once a large, cohesive boulder, but weathering has sliced them down. They crack and decomposing when water reacts with a mineral in the rock called feldspar. As the feldspar turns to clay and is washed away, the material left behind falls to the ground as soil. Mica, one of the minerals common to granite, was often mistaken for gold. Can you see any of this "fool's gold" in the mostly quartz soil below these rocks? One of these boulders resembles the head of a shark. Can you see it? Also, notice the dwarf trees behind you.

10 Unlucky

This delicate and unique little pine tree has fallen on an unfortunate spot. The soil that formed in the crack of this crumbling rock provides a less-than-ideal home. Though small, it is not as young as it looks. Like a bonsai tree, this tiny dwarf appears much the same as it did ten years ago and is, no doubt, considerably older. Please do not touch!

11 The Ancient Dwarfs

Before you are several more examples of dwarf trees straining to be free. The "whale back"-shaped rock to your left has some, too. More, still, can be seen if you walk out near the edge of the granite—but be careful on the slippery surface.



12 The Juniper

Another hardy dweller of the Sierra is the western juniper. It is usually found on dry, rocky slopes where few other plants survive. Some junipers produce berries used to flavor gin. Notice that half of this tree has already died. The rest will eventually give in to the harsh environment. The world's largest specimen, several thousand years old, is located only twelve miles east of here. It is 87 feet tall with a circumference of 42 feet!

(If you care to divert from the trail here, you may wish to stroll on down the road. Although not interpreted, it does provide pleasant walking and scenery.)

(Remember—it's all uphill coming back)