

# Sugar Pine Interpretive Trail Guide

## Introduction

The Sugar Pine Interpretive Trail is a family friendly 4.8 mile segment of an old railroad grade connecting Twain Harte and Lyons Reservoir. Besides the fairly flat terrain, the highlights of this trail are marvelous views of the South Fork Stanislaus River Canyon and its geology, biologically diverse habitats and historic artifacts that are links to Tuolumne County's past.

This interpretive trail guide has been written to provide you with information about the geology, flora and fauna and historical significance of the area. Although you can start the trail from the Twain Harte (TH) or the Lyons Reservoir (LR) trailheads, it is presented as if you are starting from Twain Harte, primarily because this trailhead is open year-round. Mileage from each gate is included to help you find the point of interest location.

During your outing, pause occasionally to observe wildlife (or evidence of wildlife), listen to the wind in the trees, and enjoy the views of distant peaks. However, when using the trail be sure to respect the native plant and animal life and others using the trail. Becoming a steward of this trail will help preserve the beauty you see today, for tomorrow and generations to come!

## Trail Head: Twain Harte Gate at Confidence South Fork

Much of this trail is on acreage that belongs to Sierra Pacific Industries (a third generation family-owned forest products company) which allows public non-motorized use of the trail.

## Point of Interest #1: View

(0.46 miles from TH gate, 4.34 miles from LR gate)

The Sugar Pine Trail sits on the edge of the South Fork of the Stanislaus River Canyon and you often get clear views of it and surrounding peaks. This spot is the first viewing area when starting from the Twain Harte gate. The peaks, including the Dardanelles in the far distance to the east, are remnants of an ancient volcanic lava flow that once covered the entire area. Areas surrounding the peaks have lost their topping of volcanic rock through erosion (referred to as upside down geology). The Dardanelles consist primarily of andesitic rock.

## Point of Interest #2: Hardwood Tunnel

(0.64 miles from TH gate, 4.16 miles from LR gate)

Located at ~4230 ft., the trail passes through a number of different native plant communities revealing a biologically diverse area.

The predominant habitat is a mixed coniferous Sierra Nevada forest with sugar pine, Ponderosa pine, Douglas-fir, white fir and incense cedar but there are sections, such as this one, that are primarily hardwoods which add color and beauty in the autumn months. In this 'tunnel', you find black oak and big leaf maple trees.

#### Point of Interest #3: Spring and Riparian Habitat (0.76 miles from TH gate, 4.04 miles from LR gate)

Due to the presence of a spring that flows downhill from the right to the left beneath the trail, the plant community in this area is riparian in nature. A variety of vibrant wildflowers can be found here in the spring including beautiful lilies (near the first crossing of powerlines). Other native wildflowers to look for along the trail include: Indian pink, lupines and trillium.

#### Point of Interest #4: Invasive Blackberries (0.85 miles from TH gate, 3.95 miles from LR gate)

Blackberries also flourish in habitats with extra water. Note however, that in this particular area as well as others along the trail, the non-native five-leafed Himalayan blackberry bushes substantially outnumber the three-leafed native blackberry plants. There are a number of non-native or invasive species that are growing along the trail that have been displaced, transported or introduced to the area. These non-natives have established themselves as a result of adaptable characteristics but they often out-compete the natives for limited resources. The California Invasive Plant Council is a great resource ([www.cal-ipc.org](http://www.cal-ipc.org)).

#### Point of Interest #5: Granite (1.3 miles from TH gate, 3.5 miles from LR gate)

Granite is the underlying rock forming the foundation of the Sierra Nevada Mountains. It is a type of igneous rock that formed from magma that cooled beneath the Earth's surface. Over time, some of the granite becomes exposed through erosion of overlying materials. There are numerous places that you can spy granite along the trail, particularly as you get closer to Lyons Reservoir. Take a moment to run your hand over the granite; its rough texture is due to large crystals which had lots of time to form during the long cooling process.

#### Point of Interest #6: Culvert (1.68 miles from TH gate, 3.12 miles from LR gate)

Historically, this railroad grade was part of the Sugar Pine Railway used for logging. This culvert is a remnant from those days. Although difficult to see with the layers of dirt embedded in it, this culvert was

created by wrapping or banding wooden staves together with wire. The culvert was used to divert water beneath the railroad grade rather than over it. Look for other pieces of railroad evidence as you walk the trail.

**Point of Interest #7: Dogwood & Big Leaf Maple**  
(1.79 miles from TH gate, 3.01 miles from LR gate)

Native plants are adapted specifically to the areas that they grow in and evolve, over time, with their pollinators and the other wildlife that depends on them. Native hardwoods, particularly dogwood and big leaf maple dominate this particular part of the forest. For more information on California native plant species, go to [www.calflora.org](http://www.calflora.org) or [www.cnps.org](http://www.cnps.org).

**Point of Interest #8: Mount Elizabeth**  
(1.96 miles from TH gate, 2.84 miles from LR gate)

Mount Elizabeth can be seen to the left (cell towers on top) and the downstream view of the South Fork Stanislaus River Canyon just to its right. Mt. Elizabeth is nearly 5,000 ft in elevation and was once the site of numerous upper elevation gold mines. Today, it boasts one of the few operating fire lookout towers in California.

**Point of Interest #9: Views & Granite**  
(2.08 miles from TH gate, 2.72 miles from LR gate)

This is another view point along the trail. This one, like some others, was created when this area was logged in the past decades by Sierra Pacific Industries (SPI). The replanted trees have been growing over time which changes not only the ability to view the canyon, but also the plant community in the area. Over time there will be a shift to more shade-loving species as the taller trees block sunlight.

**Point of Interest #10: Manzanita**  
(2.19 miles from TH gate, 2.61 miles from LR gate)

This area is more chaparral-like with the growth of sun-loving native scrub plants like manzanita (red bark) and ceanothus in this post-logging period. At this elevation, mountain misery is also a native mainstay plant. It can be identified by its feather-like frond leaves and its pungent smell.

**Point of Interest #11: Powerlines**  
(2.51 miles from TH gate, 2.29 miles from LR gate)

OK the powerlines are a point of reference rather than interest (so you can figure out where you are in relation to the map points). However, this is a good spot to remind you to be on the lookout for native wildlife. The small Douglas tree squirrel and the larger western gray squirrel are often seen scampering in the trees. Common birds such as the noisy

Stellar jay, American robin, turkey vulture and red-tail hawk can be seen in flight or on tree branches. Bear and coyote also frequent the area. Since many animals are so elusive often you will only see signs of them: midden piles of pinecones, animal scat, birdsong or animal tracks.

**Point of Interest #12: Railroad Ties**  
(2.54 miles from TH gate, 2.26 miles from LR gate)

The railroads played an integral role in the timber industry as a means to transport logs from forests to mills. Originally, this land belonged to the Standard Lumber Company as part of the Sugar Pine Railway. A number of spurs branched off from the main line to reach deep into other forested pockets for logs. The Pickering Lumber Company purchased the land in 1921 and operated the railway until 1965. After this point, improved roads and trucking became the preferred mode of log transport. The ties here are hard to see due to the accumulation of dirt; there are others closer to the dam that are more visible.

**Point of Interest #13: Pond & Ferns**  
(2.74 miles from TH gate, 2.06 miles from LR gate)

This spring-fed pond creates a moist environment for another riparian plant community; however, this one is different than the one at #3 because it is also very shady. Note the great preponderance of ferns and other plants that did not exist in the sunnier riparian habitat. Since native plant species provide sustenance and shelter for the native animals that coexist with them, it is likely that you could see some different water-loving creatures at this locale.

**Point of Interest #14: Dogwood Habitat**  
(2.85 miles from TH gate, 1.95 miles from LR gate)

This section (and others as you approach the LR gate) is rife with beautiful native dogwood trees. It is a worthwhile investment of time to revisit this trail in the spring when the dogwoods are displaying their showy white flowers (bracts) as well as in the fall when the leaves turn a pinkish red with bright red seed clusters arranged among the leaves.

**Point of Interest #15: Chaparral & Hill Cut**  
(3.59 miles from TH gate, 1.21 miles from LR gate)

As you turn the corner on this sunnier part of the trail, you should note a more chaparral habitat of manzanita and live oak. In the fall, look for the golden acorn caps left on the live oak tree branches. Here also, you can see that the hillside was cut through to create the grade for the railroad. There are many hill cuts along this railroad grade trail.

**Point of Interest #16: Spring**

(3.89 miles from TH gate, 0.91 miles from LR gate)

Do you see similar plant species at this shady spring? Also, look closely at the rock beneath the running water. This granite has a smooth polished surface due to the erosive force of running water.

Point of Interest #17: Weathered Granite

(3.94 miles from TH gate, 0.86 miles from LR gate)

There is an abundance of granite the last mile to Lyons Reservoir gate. However, the granite along this stretch gives you ample opportunity to view close-up how the rocks are weathered by water, wind and plants causing them to crack or break. At this location, note how the tree roots have pushed down through the granite.

Point of Interest #18: Flume

(4.16 miles from TH gate, 0.64 miles from LR gate)

If you look downhill through the trees at this location, you can see a flume. This flume is visible in a number of spots from here to the dam. This flume is part of the Main Tuolumne Canal which carries water from the Lyons Reservoir to downstream communities for domestic use. The Main Tuolumne Canal parallels the railroad grade from just beyond the dam past the Twain Harte gate and is one of many canal systems still in use in Tuolumne County.

Point of Interest #19: Canyon View

(4.29 miles from TH gate, 0.51 miles from LR gate)

From this location, you have a magnificent view of the South Fork Stanislaus River Canyon in both the upstream and downstream directions. You can see Lyons Dam in the near distance upstream; note how the canyon narrows towards the dam. You can hear the water rushing through the canyon now that you are just above the flowing river.

Point of Interest #20: Railroad Ties and Rock Cut

(4.33 miles from TH gate, 0.47 miles from LR gate)

This railroad ties in this section are more evident than those at #12. What is really impressive at this location though is the rock cut just past the railroad ties. The massive granitic boulders in this section were obstacles that were blasted away to make way for the railroad.

Point of Interest #21: Huge Sugar Pine

(4.43 miles from TH gate, 0.37 miles from LR gate)

A very large sugar pine tree resides on the uphill edge of the trail at this location. It most likely is an old growth tree. Sugar pines are the tallest pine species in the world and are native to mixed coniferous forests

in the Sierra Nevada. Their pine cones can grow to be more than 1 foot long and are relished by the native squirrels.

#### Point of Interest #22: Lyons Dam

(4.61 miles from TH gate, 0.19 miles from LR gate)

With the Gold Rush, water became an issue (and still is!). The historic solution was to create mountain storage reservoirs and then a series of ditches and flumes to convey the water to mining towns. Lyons Reservoir was created in 1857 when a dam was built on Lyons Flat. The current dam dates back to the 1930s and is operated by PG&E.

#### Point of Interest #23: Osprey Nest and Lyons Reservoir Gate

(4.8 miles from TH gate, 0.0 miles from LR gate)

Once you reach the gate, turn around and look up in the tops of the trees alongside the non-lake side of the trail. Can you see the two osprey nests that are at the tips of two different trees? Ospreys are birds of prey that like to catch fish for their meal. Bald eagles can also be found in the vicinity of Lyons Reservoir. Note that there is no swimming in Lyons Reservoir since it is the source of drinking water for most Tuolumne County residents.