



California State Parks

Video Transcript



The Pfeiffer Falls Trail at Pfeiffer Big Sur State Park

Hi. Welcome to Pfeiffer Big Sur State Park. We're going to be taking a walk up to Pfeiffer Falls today, and I'd like to thank you all for joining us on this hike. This is one of my favorite hikes in the Big Sur area. I call it "A Glimpse into Big Sur" because what you can see here is something you can see up and down the coast. A lot of the forces that have shaped Big Sur are evident on this hike—things such as fire ecology, geology, and even some of the cultural history is evident along this hike. So without further adieu let's get underway.

We are here at the junction of the Valley View Trail, and this trail makes kind of a horseshoe off of Pfeiffer Falls Trail. If you'd like, at the end you can catch it from the other end, and it takes you up into the chaparral area rather quickly. And what you'll see is a dramatic difference between being down here in the moist area where the redwoods grow and are nurtured by fog, to up there where the area is quite exposed, and a whole different plant community. You see oaks and chaparral and the like. Okay, we're going to be moving on up the trail here.

In the redwood forest, the plant community is actually relatively small owing to the competition for light. So the plants have to do some rather inventive things to get light. Bay trees for example, like this one, will actually grow towards the light in order to get as much as they can, and that's called phototropism. And other plants, such as this redwood sorrel here, you guys can come in and take a little closer look, kind of use a solar panel type approach to the low lighting. So when there's a little bit of sun, they open wide up like this, and then in the midday sun, when it penetrates the canopy, they'll actually close up a little bit. So you'll see kind of a similar pattern as we go along here. Either the trees are really, really tall and leaf way up high where they can get all the light or they employ some sort of strategy like this to get as much as they can.

We'll stop and rest here for a second and take a look at Pfeiffer Redwood Creek. This creek looks pretty innocent right now, but in 1972, as we learned, it could pack quite a wallop. Remember I talked a little about fire ecology in this area? A fire started at Molera and burned this entire watershed behind us. This area wasn't affected by the fire, yet. But in October of '72 we started getting some really heavy rains and what happened in the fire in August was that the chaparral plants have some real waxy substances in their leaves, and that stuff all vaporized and moved through the soil and then re-condensed a few inches down in the soil and made like a real waxy impervious layer. So when the rains came in October and November, it hit that layer and saturated all the soil to that layer and then all of that stuff became a mud flow, which then found its way to Pfeiffer Redwood Creek, which then found its way to the Big Sur River, which then found its way to the River Inn and buried River Inn in about six feet of mud. It moved cars as far as two miles. Rocks, boulders, and so forth

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crushed homes and property. As far back as 1810 we had mudflows right here in this very creek. All right so shall we move on? Are we rested? All right.

A lot of folks will ask me when the last fire came through here, and the records weren't kept as meticulous as we keep them now. We know from looking at the trees that fires came through here. We can look at this tree here that isn't fire scarred, which we estimate to be 75 years old, give or take. So we know that it was probably 75 years ago that a fire burned through this area of the woods. The redwoods are, if you take a look at this trunk here, pretty protected by this thick layer of bark. That allows them to withstand a lot of heat, and we'll see more examples of that up the trail.

Sometimes folks ask me, too, "How long do the redwoods live." That redwood round, down at the bottom, when it was just cut, was about 720 years old. So they can probably live a thousand years or more.

What do you think about this, Matthew? I was thinking I found you a new clubhouse. What do you think?

VISITOR: What is the cause of that?

RANADA: The thinking is that the duff accumulates and all the downed leaves accumulate on the high side of the tree, and when a fire comes through, it burns through the duff and will actually burn through the thick redwood bark and up the tree. It will keep going up the tree until it suffocates, until it runs out of oxygen. But remember, the living layer of the tree is actually inside this thick layer of bark, so it's protected. So the tree will continue to grow although it can be weakened by lacking the heartwood. As we'll see up the trail here a ways, these things have a fairly shallow root base, so when they experience a lot of heavy wind and perhaps erosion from a flood event, they can succumb and fall over.

Now the old timers had a use for this, because you couldn't just always go build yourself a picket fence. You could, however, just throw up a few pickets and keep, you know maybe your children in here or maybe your geese or something like that.

VISITOR: That's why they called them goose pens.

RANADA: That's why they called them goose pens. So let's move on up the road a ways . . .
. . . and take a look at this redwood here.

I said that redwoods have some rather adaptive features that allow them to live through fires and floods and whatnot. And that's really evident on this tree here. What's gone on here is this tree has experienced a lot of stress from different things, maybe mud flows, obviously some fires. And what it's done in response to that is it's attempted to stump sprout by using these burls. So what is interesting is that at some point this tree put out a lot of effort to start sprouting and then knew to shut it down. So that would be of interest to scientists to know how, in effect, this tree stopped tumors from growing. But you can see around the backside here where it did actually send up a couple of new trunks in order to go on living, because it probably experienced fires and mud flow in its time of living here.

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[Inaudible question]

RANADA: The new growths would start, right. So had this continued to be covered in mud, it would send up new shoots. All right, so we're going to take a walk up the trail here and see what else we can find.

I wanted to show you all the underside of a redwood tree and show you just how shallow those roots are. If you can imagine, they were probably only six to eight feet deep when the tree was upright and facing this way. But remember I said redwood trees are pretty resilient and they have some different strategies? Well, this tree has sent up some stump sprouts that have grown into trees so we got a little family of trees, and the analogy I like to use is that the parent tree has just fallen over from exhaustion but the teenagers continue to live off of it.

CHILD: I didn't know there were these falls here?

RANADA: Yeah, and do you know what? We wouldn't have falls except for one thing and I would be remiss in my duty if I didn't point this out. Now we all have our faults, right? Well, we're looking at one of Big Sur's faults right here. This is sometimes called the Serra Hill Fault or sometimes called the Sur Hill Fault. In any event, this fault zone of crushed rock is what's responsible for these waterfalls that we're about to see. What happens is the water flows over a big hard rock behind this on to softer sandstone that we're seeing here in the fault zone and the sandstone washes away. So again, like I was saying, because this fault zone runs parallel to the mountain, this scene is replicated up and down the coast—wherever the water flows over this hard salinian block and onto the sandstone, it creates waterfalls. Now at one time the waterfall was probably right in this area but because of the erosion has moved back about 200 feet. So are you guys ready to see the waterfall? Are you ready? Okay let's go.

Now there's some more stairs here. We'll stop right up here at the top of the waterfalls. We're going to walk right over here.

What do you see?

CHILD: It's a waterfall.

RANADA: Well, we're going to get a sneak peak here of the falls, and if you look carefully enough, you can actually see falls up and above Pfeiffer Falls here. And you can see how it's flowing on that really hard rock and then you can see this crushed rock here. You can also see remnants of what was a reflection pond, built by the CCCs, probably, in the late 30s, maybe 35ish, around there. It's not something we would necessarily do now in State Parks, but that was kind of the trend then was to have little reflective pools. So let's take a walk up and get a little closer. And we can talk about how Pfeiffer Resort was born. Would you like to hear that?

CHILD: Yeah.

RANADA: So here we are at the top of the falls, and we're pretty fortunate because this never dries up. Even in big drought years we still get a lot of water here, and that's because we get a

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lot of rainfall up above. Where we might only get 30 inches down in the valley, sometimes they can get upwards of 200 inches in the hills above us. So that water kind of sits around in the ground and comes around as a waterfall. Remember down below we were taking a look up at the reflecting pond, and you can see it from this angle here. Again it's not something we would normally do now in State Parks, but at the time it was put in, probably late 30s, this was kind of the architectural style of bringing the outdoors up close and personal and using native material to enhance the natural environment. So it probably was used as a wading pool although we don't really use it as that now, but people probably enjoyed it back then.

VISITOR: Well this was a resort back then?

RANADA: The Pfeiffers, who owned the property prior to the State, operated a resort here probably starting about 1910. And there's kind of an interesting story that goes with all that. For a long time this was pretty close to the end of the road, you didn't go much further south. So it wasn't uncommon for the Pfeiffers to invite guests over and to have folks even take a meal and stay overnight. And John was a pretty friendly outgoing guy and his wife Florence went along with it. Well that kind of came to an abrupt end one night when a gentleman showed up who Mrs. Pfeiffer didn't particularly care for and he brought four of his friends. They took supper, they stayed overnight, and they took breakfast. Then four of them departed without even so much as a thank you. The fifth gentleman, who Mrs. Pfeiffer didn't care for very much, then set about to leave and began hitting his mule with a fence picket, and that was it! Florence Pfeiffer said, "From now on I expect to charge you for everything you eat, for each animal you bring," and so forth and so on. So a resort was born and we're still charging customers to this day.

VISITOR: It was a new industry here in this area.

RANADA: It was a new industry here in this area and it became very popular.

Well this concludes our Pfeiffer Falls hike, and as I mentioned you can either hike back down with me, we'll go back down at a leisurely pace, or if you'd like to make a longer hike out of it you can catch the Valley View at the base of the stairs. It takes you up to the chaparral, and it will add about a mile and a half to your hike. It brings you down at the head of the trail. So that's it. I enjoyed your company. Thank you.

CHILD: I'll walk down with you.

RANADA: Well, there you go! Let's go.

Running Time: 16:51
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