



# California State Parks

## Video Transcript



### ***Trekking the Trail of the Tiger Salamander at Great Valley Grasslands State Park***

GUIDE: Good morning. How is everybody?

STUDENTS: Good!

GUIDE: Well, I would like to welcome you to Great Valley Grasslands State Park this morning. My name is Becky O'Rorke, and I'm an interpreter here with California State Parks. Today I will be your guide for Trekking the Trail of the Tiger Salamander. Does that sound like fun?

STUDENTS: Yes.

GUIDE: What we're going to be doing today is discovering all the area you see around you. This is known as the Grassland's Ecological Area. What we're going to be doing is we're going to be focusing on four different communities here. One of them is the riparian woodland, one is the fresh water marsh, the other is the vernal pools, and of course the grasslands.

The reason that we call this field trip "Trekking the Trail of the Tiger Salamander" is because here at Grasslands we have a proposed endangered species. It is this right here—this is a tiger salamander. What happens is during the rainy seasons, the salamanders travel out from their burrows. They spend most of the year in a burrow underground. What they do when the rainy season comes, and those vernal pools that we're going to see later on fill up with water, they travel to those vernal pools to lay their eggs. Well, sometimes salamanders have to travel up to two miles away from their burrow to get to that vernal pool. Today, on our trek of the tiger salamander, we're going to travel approximately two miles today. We're going to travel about a mile in and a mile out. So we're kind of following in the footsteps of our friend the tiger salamander. Is everybody ready to get going on the walk?

STUDENTS: Yes!

GUIDE: Let's go ahead and head out. Okay, as I mentioned earlier, on our walk today, as we're going towards the vernal pools, what we're going to do is make a couple of stops. I had mentioned those four different communities that you can find out here in the grasslands area. The first one that I mentioned was the riparian woodland. Does anybody know what riparian means? Is that a funny word to you? Have you ever heard riparian?

STUDENT: Reptilian?

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GUIDE: No, but that's a really good guess. We're going to talk about the riparian woodland, and actually the word riparian comes from the Latin. It actually is *riparius* meaning river. The river that we have running through Grasslands State Park is the San Joaquin River, which you're seeing right over here. Everybody go ahead and take a look. Now, all of the trees that you're seeing growing along here are water-loving trees. What you're seeing are the taller trees, are cottonwoods intermingled with some valley oaks. There's also different types of plants down there—some berries, some vines, mugwort, all kinds of different things. Those are the type of plants that like to live here. There's also a lot of wildlife that utilizes this riparian woodland.

Do you guys have any guesses of what kind of animals might live along the river here? What do you think?

STUDENT: Amphibians?

GUIDE: So, like frogs? All right. Anything else? What else might live in the river?

STUDENT: Snakes?

GUIDE: Snakes—we do have snakes here. Now also found in there are going to be some mammals. And we're going to talk a little bit farther down about one mammal in particular and that would be the beaver. From right here you can't actually see it, but there's a beaver's slide. Do you see a little slide coming down the side of the bank? It almost looks like a little trail. Well that's a beaver slide, and beavers use that as they are chewing on the wood, the trees in the back, they bring that down, and they go back up that slide. We're going to get a closer look at one of those as we get farther up the trail. Let's go ahead and keep moving.

We've made our next stop—we just made a stop over there next to the San Joaquin River along the riparian habitat and we talked a little bit about that. That's our fresh water that's running through here. The next thing I'd like everyone to look at is this open area here. This is pretty common of what the grasslands community looks like. It's flat, it's filled with different types of grasses, and as we look out here, does everybody see that big tree? Does anybody know what that big tree is? Any guesses? What do you think?

STUDENT: Oak tree?

GUIDE: Very good. That is a lonely little oak tree out there. And it is a valley oak. There's nineteen different types of oaks in California, but here at Grasslands we have the valley oak. Now the reason we're not seeing too many trees out there is the way the valley was formed. As I mentioned with the riparian, the trees that grow over there are water-loving trees—they need that water to survive. So what I'd like to do is show you a map of California. Millions of years ago the Sierra Nevada, as the water rushed down, and erosion, the wind, the rain, everything, the Sierra Nevada Mountains brought down with it, with all that water, different soils, different sediments. They've settled here in the valley, and you can see here, these are the Sierra Nevada Mountains, washed down into the valley. And those sediments, those soils, settled here.

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As we move up, we're going to see the vernal pools. What has happened over millions of years is different depressions in the soil itself have turned to clay pan—what we call clay pan; it's a hard clay material. And what happens is the water can't soak into the ground right there. It just settles on the surface and that creates our vernal pool. So the soils out here on the grassland are very different, and that's why we're not seeing a lot of trees there and why we're seeing all the trees next to the water over here along the San Joaquin River. Let's go ahead and move to the next stop.

We have stopped at the freshwater marsh. The freshwater marsh is fed from the San Joaquin River. There are a couple outlets that go under the levy road that we're walking on right now that feed this freshwater marsh. And this is part of the Grassland's Ecological Area also. As you were learning with your "footprints" activity, these areas all were once filled with water. And animals and wildlife from all different areas came to freshwater areas to get their drink. What happens here now is we have all kinds of wildlife that comes here. Some include, just like the river, amphibians; we have frogs here, mostly bullfrogs. Occasionally a red-legged frog, which is an endangered species here in California.

We have other things that use the freshwater marsh. I'd like everybody to close their eyes, and what I'd like you to do is be very quiet, not say anything at all. What I want you to do is just listen. Okay, now what I'd like to know is what did you hear?

STUDENT: Some birds singing?

STUDENT: The wind?

GUIDE: I think we're all hearing the wind today. Well I like to stop here at the freshwater marsh and like everybody to just take a moment and just kind of be quiet—take a minute to relax and listen to the things that are around you.

And what a lot of you heard were the sounds of birds. We have several different birds that like to come here to these freshwater marshes. They like to hang out on some of the plants that we have here. As mentioned earlier, there are tules in here, everything you're seeing behind me are tules and cattails. These are very common in a freshwater marsh, the reason being that the water moves very slowly, if at all. It's fed from the river, but the water itself pretty much just stands still, which means there's not a lot of oxygen in that water. So these tubular plants—the tules, the reeds, the cattails—they have a special structure in which they take oxygen from the bottom of this pond and that's how they feed themselves and that's how they grow. Very interesting plants, but they're also a good stopping point for a lot of the birds that come by here.

And although these are not real birds, the western meadowlark likes to come here and you may have heard him.

Did you hear that bird today? That's our western meadowlark, and I want you to keep listening for this guy, because we're going to hear and see this guy today, I just know it. But also, the other bird that we've seen this morning, and a good place to find this guy is right here along the tules and the cattails, is the red-winged blackbird.

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Did you hear that one? So that's the call of our red-winged blackbird. These guys are pretty easy to identify because of the bright red you're going to see on their wing. Yes, we saw lots of these today.

Now, also in the freshwater marsh are some other animals, not just the birds. We saw a few ducks fly out, this is also a great place for herons—the great blue heron and also the egret. Those are tall birds and they actually have legs like flamingos. Their knees go backwards from the way ours do, so they can bend over and get all that yummy stuff that they can find in the water—that includes insects, that includes frogs, crawdads, whatever they can get, so they're easily bent over.

Also, here you're going to find some other animals. Some of those include these guys, and that is a muskrat. So we've actually seen a muskrat here in the freshwater pond. This is also one of the animals that you're going to find in the river, but also coming across the road sometimes into the freshwater marsh. This is a river otter—very good. River otters are actually carnivores. Do you guys know what carnivores are? Meat-eaters. So these guys are out there looking for meat—so they're looking for fish, they're looking for frogs, they're looking for crawdads. Sometimes they'll come on over here and get themselves a good meal.

We also have other wildlife that likes to come utilize the freshwater marsh. What is this?

STUDENTS: Raccoon.

GUIDE: Very good—raccoons. Raccoons, they say, always try to wash their hands and their food before they eat it. So a lot of times you're going to find a raccoon near a water source, whether it be a river, a pond, a marsh, a creek, so that's why you're going to find the raccoons around here. Like I said before, lots of wildlife use this freshwater marsh. Okay, what I'd like to do is go ahead and pass around the rest of these items as we walk along.

Yeah, you can ride your bike here, you can take walks here, you can follow the levy road all the way around. We're going go ahead and stop right here, guys.

Now, as I mentioned earlier, when we were talking about the riparian area, was that we have different animals that like to live in the river over there. One of those was the beaver. We saw some of the beaver slides, and as we keep walking around this corner here, we're going to see a lot more beaver slides on the far bank of the river over there. But beavers also utilize the freshwater marsh, just as some of the other wildlife that I mentioned earlier does. If you take a look right here, I know not everybody can see it at this moment, but there's a beaver slide that goes straight down into the freshwater marsh. If you look on the other side of the road, lo and behold there's a beaver slide that goes down that side, too, isn't there? So where do you think that beaver's coming from? The river, and he's coming over here. The reason this beaver was doing this was because this beaver was building himself a dam right here in the culvert. But these are actual sticks that the beaver had chewed. If we had a better look at those sticks, they might look something like this. Now the beaver does chew the stick for food, there's the inside layer right underneath the bark that's nice and good and yummy to that beaver. So he does eat the wood. But one of the main reasons that the beaver chews on sticks, on wood, is because of his teeth. Beaver teeth are constantly growing. They're kind of like our fingernails. Do you guys all have to clip your fingernails? Yeah, because they're always growing. So what

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happens with the beaver is that his teeth are growing all the time, so he keeps them gnawed down from chewing on the wood.

This is a beaver pelt. Because beavers do live in the water, they have a special kind of pelt or fur. What I'd like you to do when I pass around the beaver is to actually feel this special fur. They have two types of fur on them, one is a nice thick soft fur and that helps to insulate the beaver, works as a coat for the beaver, helps to keep him warm. There's also a longer, coarser hair on top, and what that does is it kind of helps to keep the beaver waterproof. It sheds the water right off of him when he gets out of the water. At one time in our country's history, hunting and trapping of beaver and otter was very popular because of this fur. If it helps to keep the beaver nice and warm, it obviously would help us to stay nice and warm, too. So at one time many people had coats made out of beaver pelt and also hats.

We have seen three of our communities so far. We've taken a look at the riparian woodland, we stopped and we got to see those red-winged blackbirds there at the freshwater marsh. And we talked about the beaver and the raccoon and all those guys. We've also been walking through the grasslands area, too, and we talked a little bit about some of the wildlife that like to live here in grassland. Now we are headed to the vernal pools. That's the most exciting part of today, right? Because we're trekking that tiger salamander, we're walking in his little footsteps and we're going to head to those vernal pools.

As we start walking this way we're going to start seeing evidence of the vernal pools. We're going to start seeing some vernal pool flowers, we're going to actually see some vernal pools, and we're going to work our way towards our big vernal pool where we're going to do some of the activities to learn more about them. So let's go ahead, and we'll walk towards our vernal pools.

All of those flowers you're seeing, those are called gold fields. We're going to see a lot more of those as we start coming towards the vernal pools. As we see everything now, everything's lush and green, we have the grasslands, you can see the riparian area, as we go down a little farther we're going to see the vernal pools, full of water, full of life—the tiger salamanders, the fairy shrimp, the tadpole shrimp. All of the plant life we see is in full action right now, growing, living, but it's not always this way. Let's skip forward a few months, when the vernal pools and the communities around it, dry out.

What is a vernal pool? We're out here on our walk today, learning all about vernal pools, but we need to define what one is. A vernal pool is what we consider to be a temporary pool of water. Vernal actually is a Latin word meaning spring, and during the spring months, when the rains fall in this area, the pools themselves, because of that clay pan we discussed, the clay pan ground, it holds the water. And what happens is the water stays there and it evaporates, it doesn't soak into the ground, it doesn't percolate into the ground, like a lot of the other ground around here. It actually stays there, and as it warms up, throughout the spring and summer months, it evaporates, all that water just disappears. So we consider these vernal pools to be temporary pools, where all the life and the community that surrounds it only uses that water in the vernal pool for a very short time. As we learned about the riparian area with the river, also the freshwater marsh, those are considered to be permanent water sources, because the river's always flowing and the freshwater marsh is always getting a constant supply of water, unlike the vernal pools where that water evaporates as the weather warms up.

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Now here we are in the middle of July, and things here at the vernal pool look a little different than they did in the springtime. As we look around, things look dried out and kind of crunchy, but where do you think all that animal life is? The tiger salamanders, the fairy shrimp, the tadpole shrimp, all of those flowers. Well, during the summer months as the waters evaporate from the vernal pools, it starts to look like this. But all those animals are still around this area—the tiger salamanders have gone into burrows, some of the squirrel burrows, maybe they're sharing a home there. And the fairy shrimp, the tadpole shrimp, and as you look right now there's no water, but where do you think they might be? Actually they're right here. The fairy shrimp are actually eggs right now, and they're encased in a shell that we call a cyst, and they're waiting here until the rains come again, next springtime. And all of those flower seeds are out here right now. What they do is in the springtime they're producing all kinds of seeds just in a matter of three to four weeks. Right now all those flower seeds are sleeping right here, waiting until next spring when those rains fall again.

Now in the wet months, pretty much December through March, it's raining and the vernal pools actually have water in them, they're filling up. But as that water's evaporating, these pools that you see behind me at this time of year, the vernal pool can actually be dry for up to eight months out of the year. So all of the animals, all of the plants, everything making up this community, this habitat, has to have their life, their little span in just a very short amount of time. Sort of like the tiger salamanders who come out and do they're breeding at that time of year. Also the fairy shrimp, the tadpole shrimp, and all of the vernal pool flowers—they have a very short amount of time to actually do what they need to do and then go back into their sleep mode.

Well this here is the tiger salamander. Don't get too close to him, he might think you're food because they do eat things like worms and crickets. But this is the tiger salamander, and this is the reason that we're here today. As I mentioned earlier, these are the proposed endangered species that we were following on our walk today out here. For most of the year they spend their time inside a burrow or underneath the ground. They are amphibians so they need to stay moist. In the wintertime and the early spring, when all the rain starts to come and it gets wet out here in the vernal pools and the vernal pools fill with water, the tiger salamander makes its trek here to the vernal pool and that's where they lay their eggs, in the vernal pool water. In a very short time those eggs turn into young salamanders. They make their trek back to their burrow. These guys actually eat things like worms and crickets.

Well now we're at the section of today's field trip where we're doing all our different activities that are focusing on the vernal pools themselves. We've looked at all the different communities here, but one of the most obviously eye-catching is the vernal pool. And what we're going to do is have the students break off into different groups. They're going to be doing five different activities that focus right on the vernal pools. This pool is dried up. Earlier this winter this pool right where we're standing was covered in water; there was actually water here. And because I was talking earlier about the clay pan, the soil here, is, as you can see, how it's all cracked? The water just evaporates off; it doesn't soak into the ground here. So as long as the animals can, they come to this water source, and they use the water even when there's barely just a puddle there. So what we're going to do, as you can see there's numbers of different tracks out there. And these tracks are from animals that would actually live here and come use this. Everybody's going to get tracks ID cards, and what I'd like you to do is be

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a super sleuth, because you're sleuthing for tracks and scat, and using your ID card I want you to figure out what kind of tracks we have right there.

GUIDE: Well, we've come to the end of our day. We have looked at all kinds of interesting things out here in this Grasslands Ecological Area at Great Valley Grasslands State Park. I want to say thank you so much for coming out today. Did you guys have a good time?

STUDENTS: Yeah!

GUIDE: And we looked at all kinds of different things today that makes up this ecological area. We looked at the riparian woodland, we looked at the freshwater marsh, we saw all the grasslands, and then we finished our day here at the vernal pools, didn't we?

STUDENTS: Yes.

GUIDE: And we learned how all of these communities and all these habitats work together to make up one area where lots of different plants and wildlife live here. And this is a very special area for all of those, as we learned in the activities that we did here at the vernal pools. There's endangered species, both plants and animals, that live here. So this is a very special place, not just for you and me to come and look at, but also for all those endangered and threatened species. And once again thank you for being with us today.

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