Where the Blue Lizards Are: Petrified Forest, 2013-2017: Marla Perkins, Ph.D.

The Petrified Forest National Park was one of my first weekend outings after moving to Arizona, and I've been there several times since with various people and for the fun of it. If one must choose a national park to go to, the Grand Canyon National Park is the one to choose because, of course, it's the Grand Canyon. Once the Grand Canyon has been checked off the list, however, the Petrified Forest is the place to go. Of the many parks I've been to thus far, the Petrified Forest is my favorite: it's not crowded, easy to reach, easy to experience—driving and walking on a well-organized tour of the territory, with a lot of wilderness trails available for more serious outings—geologically interesting, culturally interesting, meteorologically interesting (look at these skies)—and most importantly, it's where the blue lizards live: the common collared lizards (*Crotaphytus collaris*).

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The first time I went to the park, I went in the winter, and the lizards were not out and about, but the park was still worth the visit. Every time I've been there in other seasons, I have seen at least one of the lizards, and they have stolen the show. But the petrified wood is still pretty cool.

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The collared lizards are fast and can run, sometimes on their hind legs, as fast as sixteen miles per hour (26 km/hr), so—slower than Usain Bolt, but faster than most of the rest of us. However, they tend to spend a lot of time sitting still, which makes them easy to photograph. It's as if they're posing. They consistently stop in good positions, scan the landscape, then look directly into the lens of the camera, and sit still. I like to imagine that the National Park Service has a group of especially talented animal trainers on staff who work with the collared lizards in the Petrified Forest. But then I remember all of the ridiculous information I've encountered, courtesy of the NPS, and I figure that the lizards are innately savvy models.

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Calling the park a Petrified Forest is a bit of a stretch. Trees that are horizontal are no longer a forest, but nouns don't provide much tense information except when providing explicitly temporal information (yesterday, future, etc.: these words can also be used as other parts of sentences, just one aspect of the fun we can have in English); 'forest' is not one of those temporal nouns. The Used-to-Be Forest would be more accurate while allowing people to continue imagining what used to be. The petrified trees are scattered around in chunks all over the landscape, and some of the chunks look as if they were sawn.

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The petrified trees are convincing as trees, with rings, bark, and sometimes branches, or at least knots where the branches were. At the microscopic level, individual cells of the trees can be seen.

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Mostly this is about the collared lizards, but I did mention the skies, in passing, and now would be a good opportunity to have a good look at the sky in this picture.

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The Petrified Forest National Park also has badlands, which are called the Painted Desert in the Petrified Forest. Maybe the NPS has good marketing people—we all want to see a painted forest, but badlands sound bad. Badlands happen in generally dry terrain when soft-ish sedimentary rocks and mostly clay soils erode away in the wind and water that are available. They lack vegetation, and perhaps as a result of the vegetation, they also lack a layer of regolith, which is a layer that covers rock: topsoil in some places, rotting vegetation where available, etc.

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Lizards are not the only wildlife in the park. There are many species of lizards, and many kinds of birds, one of the largest of which is the common raven (*Corvus corax*). Golden eagles are bigger, but I've never seen one of those in that park. The most interactive ravens in the park tend to loiter in the badlands. They are happy to accept any snacks that are dropped or otherwise lost, and they examine cars and people and places in many of the same ways that the people examine the birds and places and rocks. Tourism for and by animals is underestimated.

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I've seen the collared lizards in the Petrified Forest and in the Catalina State Park near Tucson and nowhere else, but they have an enormous range that includes Missouri and Mexico. In Oklahoma, they're known as mountain boomers. The lizards don't make sounds that are audible to humans, which some people have interpreted as meaning that they do not make sounds, but that's more of a leap than I'm willing to make. One of these days, we'll find that the lizards are singing and that they use the petrified wood as, perhaps, amplifiers—if one of the trees is already in use, none of the other lizards get to use it. I think the lizards are singing, and people don't have the ears to hear.

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The Petrified Forest National Park has some of my favorite petroglyphs, including this one of Bart Simpson, among many others. The rock carvers were prophets.

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I also like this one of the bird and the frog. That's what I see. Some people see a stork delivering a baby, but in my mental image of that scenario, the baby is cradled in a blanket that's tied at the corners so that the baby is at the bottom of a fabric pyramid, and the stork is holding the blanket, not shaking the baby around by an elbow. But maybe I missed something. I can imagine that a gigantic hostile stork might shake a baby around by an elbow. That could be an interesting story.

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The Petrified Forest, aside from the stone trees, is not famous for its vegetation. Regolith might require vegetation, and as noted, there isn't much of either of those things. In the winter, though, the dried calyces (single-stemmed groups of sepals) of this kind of flower are interesting to look at. I've taken pictures of these calyces all over Arizona, but I don't keep track of any plant long enough to know what the flowers are that fall off so that this is the winter result, and flower-identification sources provide pictures of flowers at their stereotypical peak, rather than after the petals and seeds have fallen off dried stems. Maybe someday, I'll figure this one out. Meanwhile, I like the word 'calyx,' and this picture shows primarily the calyces without the distraction of petals.

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The winter trip happened when there was a tiny bit of snow on the tops of the badlands formations.

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Another trip happened during the monsoon season. Arizona, like India, has a monsoon, best defined as a wind pattern. The southwestern US lacks a Tibetan Plateau and hence receives less rainfall out of the shifting winds, but it is a seasonal wind pattern caused by hot, dry air over land and hot, moist air over water that have a complicated territorial interaction. The winds shift daily, and when there is rain available, it's torrential, and then there isn't rain available, and the sky becomes an outstanding example of naturally occurring chiaroscuro on the other side of the storm.