



## A Taste of Some Sonoran Desert Sugar

by Treven Hooker

On December 13, 2016, a group of 17 students from Mansfeld Middle School and their teacher Kayla Dorff, began their last hike of the season with Seeds of Stewardship. Anxious to begin, students quickly assembled. Our mission was to explore Sabino Canyon's lush and rugged Sonoran Desert landscape and learn about desert ecosystems. We loaded up into the vans, and began our adventure.

Our hike began with an up close roadrunner encounter, which set every student into an excited roar, and sent the roadrunner off into the thick foliage. We talked about the beauty of camouflage. The roadrunner's body is slender with a dark brown back that is streaked with white wavy lines. Its underbelly is white which shines bright on its large chest. The dark colors blend in perfectly with shaded dirt, aiding it in hiding and making it difficult for reptilian prey to see it coming.

We made progress on a less traveled trail, giving us a closer view into the small ecosystems within this desert. Saguaros towered tall, and students were informed of its interior anatomy and survival adaptations. I explained that a saguaro is not just within an ecosystem, but is a micro-ecosystem of its own. Multiple bird species nest within packed out tunnels known as "boots." The birds help reduce insect populations which can critically damage the saguaro. The fruit of a saguaro provides a delicious feast for all species like bats, tortoises, doves, javelina, humans, and thousands of insects.



Socially, this wilderness provided opportunities for students to function in a learning environment. Students were running and exploring all over, using their energy to learn along the way. They marveled at the fruit of a barrel cactus, and they would have cleaned the whole crop had staff not stopped them. The desert is delicate and animals depended on those fruits. When students did not feel like listening to a lecture, they were analyzing plants and animals with a greedy curiosity. Overall, information and critical thinking were used almost constantly.

We found ourselves in a riparian gallery which harbored a very different ecosystem. It had been a while since our last nourishing rain, and the water was almost absent. Out of the water were thousands of large boulders, jetting out of each pool, five or more at a time. As a group, we traversed by hopping from rock to rock, sometimes taking shortcuts when we were tired. Students began asking questions about the water's inhabitants. They were quick to understand that aqueous species lived in a constantly fluctuating ecosystem. The pace slowed as kids spent more time peering into the murky water. Canyon tree frogs were the most sought after, with native fish and insects close behind.



Our lunch area was in a large wash supported by a large old dam far downstream. The wide riparian forest was strewn with soft sand, and relieving canopies that blocked the intense sun. Large exposed bedrock jetted out from a low cliff, and made a perfect place for sitting and relaxing. The hike was relatively easy, but the energy that propelled each student across that desert was running out, and fuel was needed.

While kids ate, co-leader Angel Breault and I explained just what characteristics make up the Sonoran Desert. It is arguably the most biodiverse ecosystem in North America, and we used the vast amount of visible plants, and the evidence of its animal inhabitants to support that.

After we ate, students spent ten minutes journaling about their senses in relation to their experiences. The time was also used to observe this ecosystem without human noises. The air was quiet before becoming a highway for the native animal sounds.

When lunch kicked in and energy levels were full, students began exploring and adventuring once again. Rock scrambling and tree climbing became popular activities.

Our hike back seemed shorter than our arrival. Students were discussing how to get more outings approved by the school, and what they might say to the principle. The last mile was soaked up by each student like rain on desert soil. Some made strong arguments to not leave while others used the time back to forage more barrel cactus fruit.

When we arrived at the vans, students with somber faces piled in. The stimulation of the hike continued to provide energy and enlightening conversations on the way back to school. Mrs. Dorff was surprised by their energy, and I have to admit that I was too. Learning in nature is just too sweet, and the students were still having a rush from the Sonoran Desert sugar.

**This Seeds of Stewardship outing made possible by a grant of funds from:**

