



Adventures in the Sky Islands

by Treven Hooker

On September 1, 2017, 24 6th grade students from Paulo Freire Freedom School embarked on an adventure into the Santa Catalina Mountains. Their mission was to observe and learn about Tucson's local biomes

while exploring and playing in the Sonoran Desert, desert grassland and conifer forest.

Our first stop was Babad Do'ag (the Tohono O'odham name for the Santa Catalinas, meaning "Frog Mountain"), a vista overlooking the Tucson basin. It was a wonderful place to view the surrounding mountains, and proved advantageous with its rich Sonoran Desert foliage, a perfect place to set up our first lesson. We hiked a small trail to get away from the roadway, and into the wild. On our way, a large garter snake crossed the trail right underneath a student's feet. Garter snakes are not venomous and quite docile, so it proved to be a beautiful discovery. The students gathered on a large protruding piece of granite, and listened as I discussed characteristics of the Sonoran Desert biome, the formation of the Tucson basin, and the historic changes this landscape has seen over millions of years. With the question "what is a Sky Island?" we departed the vista in search of elevated biomes.

Our next stop was at the Gordon Hirabayashi Campground. This area is dominated by a desert grassland biome, harboring a variety of succulents, cacti, shrub and oak trees. We hiked down the Arizona Trail until we found a perpendicular arroyo, then used it to take us into this landscape's secret places. As we hiked, a pond was discovered filled with tadpoles. Students found their attention undivided as they examined the micro-environment of aquatic insects, amphibians, and algae. We discussed water in the desert, and the shrinking and expanding ecosystems these organisms experience.



After the pond, we sat under the shade of a cottonwood tree. Canyon Grapevine (*Vitis arizonica*) wrapped around the tree in a thick nest, fruiting an abundance of dark purple grapes. Here the temperature changed dramatically, and students described it joyously as "like an air-conditioned room!" Under the tree, we agreed to have 10 minutes of silence as students journaled and drew observations from this biome. I was hesitant to believe 24 6th grade students





could remain comfortably silent without as much as a giggle or a word. But, to my surprise, each student was conformable, calm, and quiet. After students finished journaling some inspected the dirt and soil, others constructed engineering feats with desert foliage, while a few students laid back with their hands with smiles on their faces, enjoying the cool breeze.

From there our adventure took us another 3,000 feet in elevation to the Santa Catalinas' conifer forests where pine tree canopies transform warm yellow sunlight into cool green shade. Here, students broke free into the forest like trapped animals set free. They found ideal places to eat lunch among the trees, and for the next 90 minutes, students ate, played, and explored the forest. The 79° temperature on top of the mountain was a paradise compared to the 110° below. It was a great way to wrap up a day of science, adventure, and play.



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