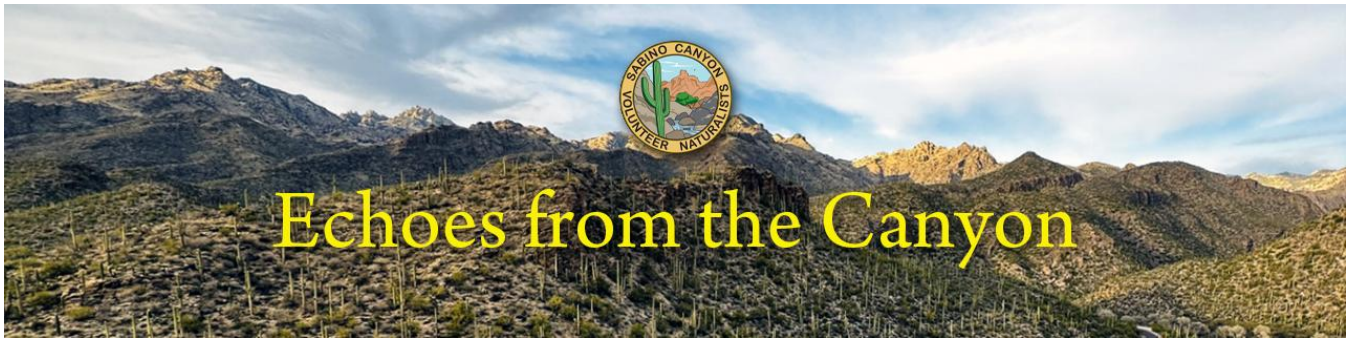


March 2026

Echoes from the Canyon is a regular publication of the Sabino Canyon Volunteer Naturalists.

Contents

Note: Click on photos to enlarge them. Click the View in Browser link above to translate.

This Month's Activities

Some of the winter activities are winding down in the next few months. Here are the activities from March 16 to April 15. Next month's edition will show those that continue after April 15. For more information on any event or presentation check out our Event Calendar.

- **Saguaro - A Desert Giant Walk:** Sundays 10:00–11:00 a.m. Meet at the Visitor Center.
- **Nature Journaling:** Monday, March 16, 10:00 a.m.–12:00 p.m. Meet in the Overflow Parking lot.
- **Plant and Bird Walk:** Tuesdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Intro to Sabino's Geology and Nature Walk**: Tuesdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Sabino Canyon Geologic Features:** Thursdays 8:30–11:00 a.m. Meet at the Visitor Center.
- **Panning for Garnets:** Thursdays 10:00 a.m.–12:00 p.m. Check website on Thursday morning to confirm both location and time.

- **Let's Explore Sabino Hike:** 2nd and 4th Fridays 8:30 a.m.–12.00 p.m. Meet at the Visitor Center.
- **Friday Trail Hike:** 1st and 3rd Fridays 8:00 a.m.–12:00 p.m. See calendar for meetup location and varying times depending on meetup location.
- **Hydrogeology Hike:** Saturday March 21 9:00 a.m.–12:00 p.m. Meet at the Visitor Center.

Educational Presentations

All presentations are located at the Visitor Center unless otherwise noted.

- **Quail Corner for Kids:** 2nd and 4th Sundays 9:00–11:00 a.m.
- **Skulls and Pelts, Wildlife of Sabino Table:** Tuesdays 9:30 a.m.–12:30 p.m.
- **Ancient Cultures Table:** Fridays 9:00–11:00 a.m. March 20, April 3, April 10
- **Ask a Naturalist Table:** Saturdays 10:00–11:00 a.m.
- **Stop 1 Chat:** Saturday March 21 10:00 a.m –12:00 p.m. Topic: History of Sabino Canyon

In the Sonoran Desert, It's a Biggie

Click here **to watch a five-minute video from Arizona Public Media's "Desert Plant" series about one of the most arid-adapted plants on the planet: Creosote bush.** (Photo by Cathy Yungbluth)

Sabino Myth and Reality

David Lazaroff

Ruins of Sabino Otero's ranch house and dam in Sabino Canyon. Haven't seen them? Read this article to find out why. (Photo by David Lazaroff, 1986.)

People have been enjoying Sabino Canyon, named after a pioneer Tucson merchant and rancher, for thousands of years. ("Tucson's Canyon Oasis," *Arizona Highways*, April 1993)

It's a myth that refuses to die--that Sabino Canyon was named for a wealthy rancher named Sabino Otero.

That story was already being told in 1935, when Will Barnes included our canyon in *Arizona Place Names*:

Named after Sabino Otero, of Tucson, well known merchant in the early days. He had a cattle ranch in this canyon.

There were skeptics, though. In a heated debate at a 1937 meeting of the Arizona Pioneers' Historical Society, one member insisted Sabino Canyon had been named for Sabino Otero, while another claimed Otero had nothing to do with it. But in later years the Otero story was repeated so often in newspapers and magazines, it became deeply entrenched in folk history.

When I began researching Sabino Canyon's history forty years ago for my book *Sabino Canyon: The Life of a Southwestern Oasis*, I set out to get to the bottom of the Sabino

Otero question. Otero was born in Tubac during the 1840s, I learned, but variations of our canyon's name turned up too early to have been connected to him--including in 1834, years before he was born. And I found no reliable evidence that Otero had ever been interested a canyon in the Santa Catalinas.

So how did the false story get started? Sabino Otero did eventually become a wealthy man, and he did own a cattle ranch in a mountain canyon, but it was many miles southwest of Tucson, in the Baboquivari Mountains. Here it is in the *Arizona Enterprise*, June 27, 1891.

It is well... to speak of Sabino Otero's ranch... situated in a large canyon in the Baboquivari. A dam 130 feet long and 3 feet on top was run across the canyon and for six years did good service for a reservoir until last fall it was washed away... Good improvements in the way of buildings can be seen.

That canyon eventually came to be called Sabino Canyon. Two canyons with the same name—a recipe for confusion! How hard is it to debunk the myth connecting Sabino Otero to the Sabino Canyon in the Santa Catalinas? I learned something about that, too.

I wrote the piece in the April 1993 *Arizona Highways*, quoted at the top of this article. Several months before it was published, I led a field trip to Sabino Otero's ranch for the Sabino Canyon Volunteer Naturalists. Volunteers Harry and Dorothy Wilhelmsen put a report in the December 1992 issue of the organization's monthly newsletter.

On Thursday, November 19, 30 Naturalists, 5 Trainees, and 7 guests had a great time exploring the 'other' Sabino Canyon located in the Baboquivari Mts... We hiked to the ruins of the old Sabino Otero ranch and to the dam built by Don Sabino Otero.

A few months later Dorothy phoned me. She had just read the *Arizona Highways* article.

Dorothy: Don't get mad. You told us Sabino Canyon wasn't named for Sabino Otero, but your article says it was.
David: That surprised you?
Dorothy: Yes, it did.
David: It surprised me, too. I didn't write those words.

An *Arizona Highways* editor had inserted the phrase about the "pioneer Tucson merchant and rancher" into my text without asking or notifying me. The magazine declined to publish a correction.

How hard is it to debunk the Sabino Otero myth? That's how hard.

Conservation in Sabino: Removing invasive plants

naturalist Debbie

We've had some nice rain this year. Wildflowers are blooming, and Sabino Canyon is looking green. However, what's good for native plants can also cause non-natives and invasive plants to flourish .

This year, in cooperation with the Forest Service, SCVN reestablished a group to start removing invasive plants and help restore Sabino Canyon's habitat. As we're removing plants, visitors will often ask why we need to remove them. Bufflegrass (*Cenchrus ciliarishas*) had a lot of publicity; most people know about the fire hazard it can create. Many other non-natives can be detrimental too. They destroy and disrupt the habitat and take advantage of the limited water resources necessary for native flora and fauna.

Eventually invasive plants can form a monoculture, thereby decreasing plant and animal diversity. We have many insects, birds, and mammals dependent upon certain species of plants as host plants and food needed for survival. Loss of habitat is the greatest threat we have to any native species.

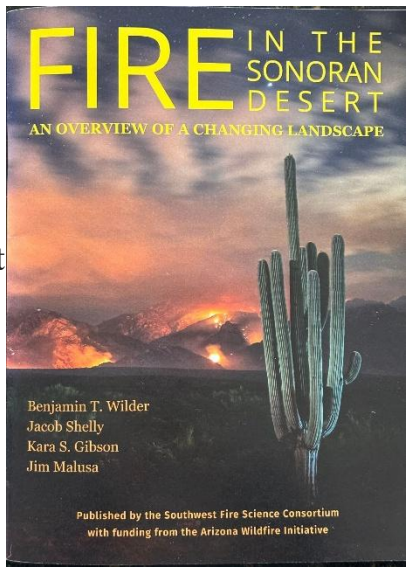
Naturalist Carol's sister Beth (left) and naturalist Bev hold a darn big sowthistle pulled from the riparian area. (Photo by naturalist Debbie)

We've already worked four days this year to remove London rocket (*Sisymbrium irio*), Sahara mustard (*Brassica tournefortii*), red brome (*Bromus rubens*), tree tobacco (*Nicotiana glauca*), sowthistle (*Sonchus sp*.), and several other non-native grasses. We worked at the Visitor Center to clean up the sprouting London rocket. We removed 14 large bags of Sahara mustard from the Bear Bridge area, and in two sessions removed 32 large contractor bags of London rocket, sowthistle, and red brome from the riparian area. About 20 naturalists participated in the different projects. Many thanks to all for your tremendous work in protecting habitat in Sabino Canyon!

Sitting on the bags of pulled invasive species is naturalist Ilene. From left to right around Ilene are fellow weed pullers Carol N., Carol B. (holding a Sahara mustard), Fred, Jane, Jim, Jerry, and Norma . (Photo by Debbie)

Fire in the Sonoran Desert:
An Overview of a Changing Landscape

Benjamin T. Wilder, Jacob Shelly, Kara S. Gibson, Jim Malusa
Reviewed by SCVN Librarian Rebecca



Published by the Southwest Fire Science Consortium, this single-issue magazine examines the growing threat of wildfire in the Sonoran Desert, driven by climate change and expanding human development. It's organized into five chapters: History of Fire; Grassification and Agents of Change; Where Are We Now? Where Are We Going? What Can We Do?; and Areas of Focus. It also outlines how fire patterns have shifted over time.

Historically (1850s to mid-1990s), desert fires were relatively limited and occurred mostly in June, fueled by a mix of native and introduced grasses. Today, fire frequency and size are increasing across North America. Longer growing seasons, record-high temperatures, and more severe droughts have intensified the hot, dry foresummer period, creating greater fuel loads. As a result, the Sonoran Desert is transitioning from what was once considered largely fire-resistant to a more fire-prone ecosystem increasingly vulnerable to invasive species.

“Grassification” is a central theme, and eight primary invasive species of concern are discussed: cheatgrass, red brome, Mediterranean grass, Sahara mustard, stinknet, Lehmann lovegrass, fountain grass, and buffelgrass. Distribution data (from SEINet) show expanding ranges of these species across the region.

Fire records from 1911–2021 in the Mojave and Sonoran Deserts reveal four distinct cycles of wet winters followed by summer fires over the past 50 years, each cycle resulting in progressively larger and more frequent fires. Graphical data suggest that each wet winter amplifies subsequent fire size and acreage burned.

Looking ahead, increased urbanization, altered precipitation patterns, lightning, and human-caused ignitions continue to stress desert ecosystems. Recovery is uneven: young saguaros, succulents, and ocotillos rarely survive fire, while nearly 80 percent of native perennials—such as catclaw, fairy duster, crucifixion thorn, limberbush, slender janusia, ratany, velvet mesquite, and limited paloverde—do recover.

Management strategies include creating potential operational delineations, protecting biodiverse refugia and remnant habitats, treating large infestations (10 plus acres) with herbicides, mulching smaller patches to suppress stinknet and buffelgrass, and supporting grassroots invasive removal efforts.

Areas of focus will continue to evolve as research advances and new questions emerge about the desert’s changing fire regime.

Tiny Insect Was Mexico's Red Gold

Naturalist Brent

In the 16th century, one of the world's most precious commodities was cochineal—a tiny insect found on prickly pear cactus. When harvested, dried, and crushed, cochineal produces a beautiful red dye. Cochineal was farmed by Oaxacan farmers, who sold the dye in Aztec marketplaces.

Spanish conquistadors arriving in Mexico in 1519 immediately recognized the value of cochineal. Back in Europe, the dye created a sensation as the brightest, strongest red dye ever seen. The Spanish guarded their cochineal monopoly and controlled global supply with inspectors at ports to prevent unauthorized shipments by spies. Europeans argued for more than two centuries whether the dye was animal, vegetable, or mineral.

Early microscopes used hand-made lenses but scratches interfered with inspection. Using poor optics, a famous scientist was quick to identify cochineal as a plant. He tried to change his analysis 30 years later to say that cochineal is an animal, but now no one believed him.

Brits took the cactus and insects to Australia in 1887. The cochineals perished, yet the cactus overtook nearly 100,000 square miles of Australia and ruined the land for grazing. A South American moth introduced in the 1920s finally brought the cactus under control.

Finally in 1725, cochineals were confirmed as animals with eyes, mouths, and feet. Shipments contained only females, resulting in questions about breeding. Early investigations in Oaxaca incorrectly stated that when the cochineals grow large, a small butterfly passes and re-passes over them. Scientists knew that mating of two different insects was unlikely and errantly decided the female procreated without the aid of males.

About 50 years later, the local term for the males was properly translated to "flying husband" rather than "butterfly" and correctly determined that cochineals are not parthenogenic. Males have wings, allowing them to visit multiple nopales, where females remain fixed for their entire life. Males are much less common than females and live shorter lives but were not harvested because they would fly away.

While only females were harvested, the eggs inside the females have the highest concentration of carminic acid and thus were the main contributors to color. Females typically have hundreds of eggs when harvested at 90 days maturity.

Red was in high demand for about 200 years but lost favor during the French Revolution when the elite wore their bright reds upon being escorted to the guillotine. Scarlet letters were issued during the Victorian era, also pushing reds out of favor. Blues and blacks replaced red as the color of success in the late 1800s.

References:
A Perfect Red, Amy Butler Greenfield, c 2005
Harvard Museums of Culture and Sciences
https://hmsc.harvard.edu/online-exhibits/cochineal1/product-nature/

Tiny, female cochineal embed themselves in prickly pear, then protect themselves with a white, waxy substance. (Photo by naturalist Brent)

Echoes from the Canyon is published monthly except July and August by members of the Sabino Canyon Volunteer Naturalists. If you are interested in learning about the Sabino Canyon Volunteer Naturalist program or about educating the public and/or children in learning about the flora and fauna of this unique riparian environment of the Sonoran Desert, please visit https://sabinonaturalists.org/join-us/