



PHOENIX MOUNTAINS PRESERVATION COUNCIL LOOKOUT

Fall 2026 Newsletter



Courtesy of Carla Gunn

SOUTH MOUNTAIN ACTIVITY COMPLEX OPENING

The grand opening of the South Mountain Activity Complex was in April. The complex is located east of the South Mountain Visitor Center. The area was designed by J2 Design and constructed by Valley Rain Construction. Both companies have worked with the City of Phoenix on multiple parks and preserves projects.

The new complex now has upgraded ramadas, upgraded restrooms, and a new trailhead to Holbert Trail. The project added 250 new trees, salvaged and replanted over 40 mature trees, planted 700 new shrubs along with many new and salvaged cacti, and hydroseeded three acres

of land. There are many informational plaques around the area about the Sonoran Desert and the history of the land. To share the history of Phoenix on these plaques, the city worked with Native communities. The other mountains in the valley are highlighted by serpents on the ground, with distance markers and plaques that include the O'Odham names and stories about each mountain.



ON YOUR NEXT TRIP TO THE PARK/PRESERVE, CHECK OUT THIS BEAUTIFUL NEW AREA!



HIGHLIGHTS FROM PARKS & RECREATION BOARD MEETINGS

LAND DONATION

As a PMPC member and lover of the preserves, you may have a new reason to celebrate. A 10-acre parcel on the southwest side of South Mountain has been approved for donation to the City of Phoenix, creating an opportunity to expand the mountain preserve system and keep more natural open space intact. The land, identified as APN 300-04-015W, was once considered for residential development, but steep terrain, washes, and infrastructure challenges made preservation a better fit.

The land is not directly connected to designated preserve land, but some city representatives believe it could be connected one day because nearby privately owned property links to the preserves. This donation may encourage other landowners to donate their land when they recognize the challenges of developing in the area.

By accepting the donation and moving to preserve the land now, the city is taking a proactive step to protect open space before future development pressures arise. The Parks and Recreation Board unanimously supported the related consent items at its May meeting, and the City Council accepted the donation on June 17. For residents and preserve supporters, the action represents more than the addition of 10 acres; it is a practical investment in the long-term health, access, and connectivity of Phoenix's treasured mountain preserve system.



Donated land is highlighted in red.

Courtesy of the City of Phoenix Parks & Recreation Board

TRAILHEAD IMPROVEMENTS

During the June Parks and Recreation Board meeting, the Board received an update on the Heat Safety program. As you may remember, when the National Weather Service issues an extreme heat warning, various trails in the preserves are closed. Trails at South Mountain Park/Preserve were recently added to this list. The full list of trails closed during extreme heat warnings includes Echo Canyon Trail, Cholla Trail, Piastewa Peak Summit trails and those in the associated area, Holbert Trail, Mormon Trail, Hau'pal Loop Trail, and access to Pima Canyon.

To assist with communicating with the public and keeping everyone safe, upgrades were made to several trailheads. There are electronic gates at Piastewa Peak, the South Mountain Park/Preserve gatehouse, and Pima Canyon. The automatic closures eliminate the need for Park Rangers to be on-site. Digital message boards were installed at Piastewa Peak and Echo Canyon Trailhead to communicate real-time closures and year-round safety messaging. Cameras were also installed at Piastewa Peak, the South Mountain Park/Preserve gatehouse, and the newly renovated South Mountain Activity Complex.

ETCHED SHELLS

The Hohokam were manufacturing and trading shell jewelry as early as the Early Ceramic period (150–650 CE). Using stone tools, they cut, carved, and polished shells into bracelets, rings, beads, and pendants. By the late Colonial period and into the Sedentary period (900–1000 CE), they were etching designs into shell. It is believed they were the first in the world to use this technique.

Using large *Laevicardium* clam valves, artisans covered the shell with a resistant material, possibly tree sap or lac, a natural resin made by insects. They scratched zoomorphic and geometric designs, such as scrolls, diamonds, and serrated lines, into the resist layer. The shell was then placed in a weak acid bath, likely made from fermented saguaro fruit juice. The exposed portion of the shell dissolved, making the design stand out from the shell's surface. The longer the shell remained in the acid bath, the deeper the etching became. After etching, some shells were painted. One shell found in Snaketown was etched with an intricate rectilinear scroll motif and painted with green and red pigments.

Only a small number of etched shells have been found at archaeological sites, suggesting that this was not a common practice and that knowledge of the technique was limited to a small number of people. When those who knew how to make the etched shells died, the practice ended with them. By the Classic period (1150–1450 CE), this practice had come to an end.



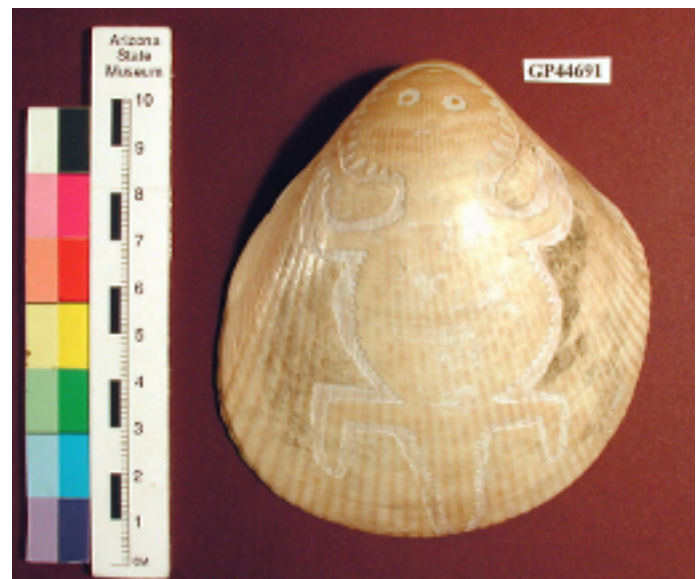
Laevicardium shell with resist applied in a horned lizard design. It was never exposed to the acid that would have eaten away the shell surface around the protected design.

Courtesy of Arthur Vokes



Laevicardium shell with an etched and painted Sacaton phase geometric design (left); closeup view (right).

Courtesy of Arthur Vokes



Laevicardium shell etched with a horned frog design.

Courtesy of Arthur Vokes

References

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DECOMPOSITION EXPERIMENT UPDATE

BY ANDY LENARTZ



JANUARY 17, 2026

On January 17, 2026, we started an experiment in Andy's backyard to test decomposition of commonly encountered items left on Phoenix trails. A banana peel, orange peel, apple core, bell pepper core, and tissue were left in a desert area unprotected from weather conditions, shielded only by a wire cage to prevent animals from taking the items.

The apple core was the first item to decompose, having fully decomposed by April 5, 2026. It took 11 weeks or nearly 3 months for the apple core to decompose. The bell pepper core was next, having nearly decomposed by April 5, 2026 and being fully decomposed by May 26, 2026. It took 18 weeks, or 4.5 months for the bell pepper core to decompose.

The banana and orange peel dried out and shriveled up quickly but still had not decomposed 6 months later. Perhaps most surprisingly, neither had the tissue. Thus far, the tissue has survived a couple of rain events, including 3 rainstorms and one monsoon storm in the previous week alone, and has still not decomposed.

The experiment continues. At this rate in the summer heat, Andy sees a tight race in whether the orange peel decomposes before he does.



APRIL 5, 2026

APPLE CORE & PEPPER CORE HAVE DECOMPOSED



JULY 19, 2026

STILL WAITING FOR NATURE TO WORK ITS MAGIC



DESERT SQUIRRELS

The three types of squirrels in the Sonoran Desert are well adapted to life on the ground. They all have good claws and small ears set low on their heads. They are all active during the day, but at different times depending on the season.

The round-tailed ground squirrel (pictured above) has sleek, short, light beige fur with a black-tipped tail. They look like prairie dogs but are not related. Round-tailed ground squirrels are social animals that live in small colonies. They are frequently seen standing on their hind legs to watch for predators. Living in areas with deeper soil, they build their burrows to the preferred depth of 3 feet below ground. If they are not underground in the heat, they are incapable of producing sweat, so they salivate to cool themselves. Their diet is green vegetation, such as wildflowers, mesquite leaves, grasses, and cactus fruits; they will also eat seeds and decaying flesh. If food is scarce when it is hot and dry, they can go into a state of dormancy, called estivation, for a few weeks until the monsoons bring new growth.

The Harris' antelope squirrel is often mistaken for a chipmunk. If there are no black and white stripes on the face, they are Harris' antelope squirrels. They arch their tails over their backs to create their own shade. In the summer heat, they will lie down in the shade and spread their legs out to release heat from their bodies. Making their homes in rocky habitats, they eat the fruits of multiple cacti, seeds, mesquite beans, insects, and mice. They will climb cacti to get to the fruit. They create small divots in the dirt when digging for seeds.



(c) Ad Konings



Courtesy of Steve Kessel

The rock squirrel looks like the tree squirrels those of us from back east are used to. They can grow up to a foot in length and weigh up to a pound and a half. They are social animals, living in groups of one male and multiple females. They live in rocky outcrops, boulder piles, and canyons. They are omnivores, eating seeds, insects, eggs, cactus fruits, mesquite beans, small birds, rodents, and decaying flesh. If food is scarce in early summer, they can estivate.

References

Arizona-Sonora Desert Museum. (n.d.). Ground Squirrels. https://www.desertmuseum.org/books/nhsd_squirrels.php
Harris's antelope squirrel. (July 27, 2026). In Wikipedia. https://en.wikipedia.org/wiki/Harris%27s_antelope_squirrel

THE DESERT'S MYSTERIOUS ICON



Courtesy of Carla Gunn

The ocotillo, or *Fouquieria splendens*, is one of the most recognizable plants of the Sonoran Desert. Ocotillos look like clusters of tall, spiny, leafless canes rising from the desert floor. Mature plants may reach 10 to 33 feet tall and spread up to about 15 feet wide. They grow slowly, like most desert plants. No one really knows how long they live, but researchers estimate they can survive in the wild for 50 to 200 years.

Most of the year, ocotillos appear dead, with little color and few leaves. One of the ocotillo's most impressive survival strategies is their quick response to rainfall. After a good rain event, they can rapidly produce small green leaves along its stems, transforming from a bare bundle of thorny branches into a lush-looking desert shrub. Unlike most plants, the ocotillo does not need nutrients from the soil for leaves to grow; they only need water. These leaves may remain for weeks or months, but when the soil dries, the plant sheds them to conserve moisture. Even without

leaves, the ocotillo continues photosynthesis through chlorophyll in its stems, allowing it to survive long dry periods.

In spring, and sometimes again after summer rains, ocotillos produce bright red to orange tubular flowers at the tips of their stems. These flower clusters give the plant its Spanish name, meaning "little torch," and they provide an important nectar source for hummingbirds, native bees, and other pollinators. In southern Arizona, the spring bloom often overlaps with hummingbird migration, making ocotillo a dependable food source when other desert plants may not be flowering. Once pollinated, the flowers



Courtesy of ethnoherbalist.com

produce light, winged seeds. These seeds have a viability rate greater than 90% within a week of dispersal, but that rate decreases quickly with age.

A relatively short seed viability period is not the only difference between ocotillos and other iconic Sonoran Desert plants, such as saguaros and barrel cacti. The ocotillo is not related to cacti. They don't closely resemble any other plant, either. Genetic testing shows they belong in the Ericales order, a large and diverse group of flowering plants. This means they are most closely related to blueberries, Brazil nuts, kiwifruit, and tea.



Courtesy of pithandvigor.com

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HANG GLIDERS LOVE FLYING OFF SHAW BUTTE

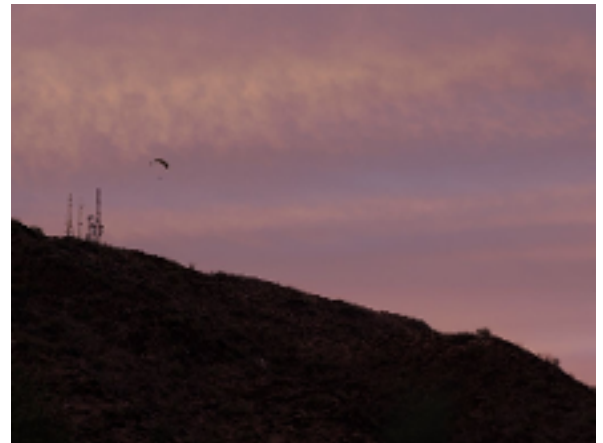
BY CRAIG WEAVER

A soaring red-tailed hawk uses lift generated by thermal currents on west-facing ridgelines of mountains like Shaw Butte. The hawk is often mimicked by hang-glider and paraglider pilots, who launch from the mountaintop and use the same ridgeline to fly for hours.

Evolving over the past 150 years, glider-wing design and materials improved significantly in the 1960s for hang gliding and paragliding. Noted advancements include improved designs and stronger fabrics, which provide significantly increased lift and control.

Today, a hang-glider pilot can take off and slip into a sleeve that wraps around the body and provides a balance point below the A-frame, which controls the solid wing. The sleeve is also slightly cushioned and improves aerodynamics. Paragliding uses a parachute-like soft wing that offers a suspended saddle, or sleeve, for the pilot while the pilot tugs two cables to control forward speed and turns.

This sport was active as areas within Phoenix became protected, so takeoff areas at Shaw Butte in the Phoenix Mountains Preserves and South Mountain were included, along with access routes.



Photos courtesy of Craig Weaver

CHECK OUT OUR NEW WEBSITE!

The Board's Secretary, Stacia Hurst, has redesigned our website! Our new look is organized to make it easier for mountain preserve visitors, supporters, and the public to find information about who the PMPC is and issues needing community action to protect the mountain preserves.

Check it out at phoenixmountains.org & renew your membership while you're there!

WHAT DO YOU THINK?

Should this activity take place in the mountain preserves?

Do these takeoff and landing zones align with the definition of a mountain preserve?

Let us know what you think by emailing us at pmpcaz@gmail.com.

FOLLOW OUR SOCIAL MEDIA



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