



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

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Fall Activities

For more information on any event or presentation check out our [Event Calendar](#).

- **Sabino Canyon Bird and Nature Walk:** 1st and 3rd Sundays; 8:00 –10:30 a.m. Meet at the Visitor Center.
- **Saguaro - A Desert Giant Walk:** Sundays 10 a.m.–12 p.m. Meet at the Visitor Center.
- **Plant and Bird Walk:** Tuesdays 8:30 –10:30 a.m. starting November 4. Meet at the Visitor Center.
- **Intro to Sabino's Geology and Nature Walk:** Tuesdays 8:30 –10:30 a.m. Meet at the Visitor Center.
- **Mt Lemmon Nature Hike:** 1st and 3rd Wednesdays 9:00 a.m.–1:00 p.m. See calendar for meetup location.
- **Sabino Canyon Geologic Features:** Thursdays 8:30–11:00 a.m. (except 11–27 and 12–25). Meet at the Visitor Center.
- **Panning for Garnets:** Thursdays 10 a.m.–12 p.m. Check website on Thursday morning to confirm both location and time.
- **Let's Explore Sabino Hike:** 2nd and 4th Fridays 8:30 –10:30 a.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.
- **Hydrogeology Hike:** 1st and 3rd Saturdays 9:00 a.m.–12:00 p.m. Meet at the Visitor Center.

Educational Presentations

All presentations are located at the Visitor Center.

- **Quail Corner for Kids:** 2nd and 4th Sundays 9:00 –11:00 a.m.
 - **Geology of Sabino Canyon Table:** Mondays 10:00 a.m.–12:00 p.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., through December 26 (except December 19).
 - **Mountain Lion Table:** Friday November 28 10:00 a.m.–12:00 p.m.
 - **Ask a Naturalist Table:** Saturdays 10:00 a.m.–12:00 p.m.
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Good To Be Back

Naturalist Kathy



After a very hot, and what seemed to be a long summer, it's good to be back in the Canyon teaching Tucson's elementary and kindergarteners about all things nature. The students and teachers love coming to the Canyon because the programs we teach are fun as well as educational. A popular program we offer to elementary students is *Back to the Past*, where kids discover the life of the Hohokam and learn to make a shell necklace using ancient tools. Included with all programs is a nature walk that the kids probably look forward to the most. The kindergarteners are treated to a puppet

show, nature walk, and 4 other hands-on activities.

If you're interested in working with children and teaching them about the natural world, consider being a Sabino Canyon Volunteer Naturalist. You'll learn so much about our desert environment, receive training on the teaching aspects of being a naturalist, and meet like minded folks who love what they do. Classes start in the fall and run through April. Check out the link to learn more: sabinonaturalists.org/join-us/

Art work by Naturalist Peggy

Mt. Lemmon Nature Hikes



We Tucsonans are very lucky to have Mt. Lemmon at our doorstep. Where else are you going to see the colors of fall, hear wind blowing through tree tops, or smell the scent of vanilla as the sun reflects off a Ponderosa pine? Each week, Naturalist Cathy will take you on a leisurely hike, exploring all things flora and fauna along the way. Want to know about the flowers that are blooming or meet a fungus that glows in the dark? Check out

postings from the latest hikes, as well as info about the next Mt. Lemmon Nature Hike.

<https://mtlemmonnh.blogspot.com/>

Next hike, [November 19 - Mt Bigelow](#)

Unbe-leaf-able: The Magic of Fall Colors

Naturalist Cathy

Each year we fall in love with the yellows, oranges, and reds seen on our higher elevation trees this time of year. But what is the science behind this change from green to beautiful autumn hues?

Green leaves each have a tiny structure in their cells called a chloroplast. This structure contains chlorophyll, which produces the food trees need to grow and thrive. Chlorophyll gives the leaf its green color. But also hiding in the chloroplast are other pigments called carotenoids, which are yellow or orange in color. When



days shorten and become cooler, deciduous trees decide to prepare for winter by cutting off energy production, thus stopping chlorophyll production. As chlorophyll in the leaf breaks down, the yellow and orange colors that were there all along come shining through.

The red color in fall leaves forms via a different process. Red comes from another pigment producer called anthocyanins in a cell structure called a chromoplast. They are dependent upon daytime sugar production and movement of these sugars out of the leaves. If the days are warm but the nights cold, then sugar is trapped in the leaves. These trapped sugars produce anthocyanins and cause a brilliant red color. If the days are warm and the nights also warm, then the sugars can flow out of the leaf more easily and we are left with a pinkish color.

As the winter temperatures drop, deciduous trees drop their leaves as a form of self protection. If leaves freeze, the cell structures can become damaged and will be poor at energy production. Instead of risking this, trees drop their leaves.

Next time you go up to Mt. Lemmon during the autumn, you can share your knowledge of fall colors. Or just walk through the forest and enjoy the show. Take comfort in the trees showing us that change can be beautiful.

(Primary reference is the Missouri Department of Conservation. Photo is of a Bigtooth maple (*Acer grandidentatum*) leaf and taken by Naturalist Cathy at Bear Wallow.)

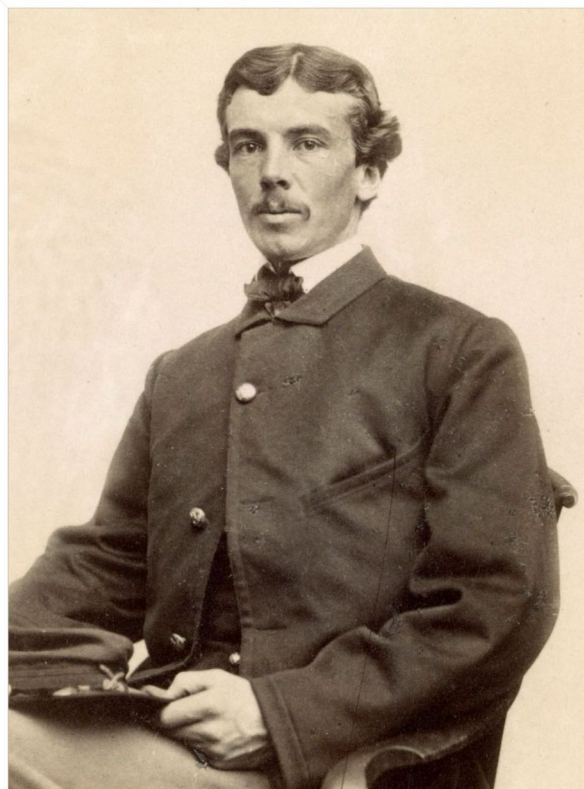
How Did Lowell Ranger Station Get Its Name?

Naturalist David

In 1873, during the Apache Wars, the army post called Camp Lowell moved from near downtown Tucson to about where Pantano Creek joins Tanque Verde Creek. The relocated camp sat on a newly created military reservation, whose northern edge was just south of Sabino Canyon. The post was renamed Fort Lowell in 1879.

In 1886, to thwart a Tucsonan's plan to dam Sabino Creek (an important contributor to the post's water supply), the army appended a patch of land to the military reservation's northern boundary, annexing the proposed dam site, in the area today called Lower Sabino. For five years, until the fort was abandoned in 1891, an area stretching from near today's visitor center eastward to Bear Canyon was part of the Fort Lowell Military Reservation.

In 1902, eleven years after Fort Lowell's abandonment, President Theodore Roosevelt created the Santa Catalina Forest Reserve. Two years later, Thomas Meagher was appointed its supervisor, as well as supervisor of the Santa Rita Forest Reserve, to its south. In 1905 Meagher wrote to the chief of the Forest Service, Gifford Pinchot, that for the sake of employees traveling between the two forest reserves, he had "built a small frame shack in Sabino Canyon, on the south edge of the Santa Catalina Reserve." The shack came to be called Lowell Ranger Station, presumably because it stood on land that had formerly been part of the Fort Lowell Military Reservation.



By the onset of the Great Depression in 1929, Meagher's shack was long gone. In 1934, young men enrolled in the Civilian Conservation Corps (CCC) finished a new ranger station, west of the first one. It was named after its predecessor. The new Lowell Ranger Station included three buildings, one of which was a residence for the district ranger—the building we know as "Lowell House." Like the first Lowell Ranger Station, the second was built on land that had earlier been part of the Fort Lowell Military Reservation.

We can trace the name of Lowell Ranger Station backward in a few steps: second Lowell Ranger Station > first Lowell Ranger Station > Fort Lowell > Camp Lowell. But how did Camp Lowell get its name? We need to take one step farther into the past.

Charles Russell Lowell was a Union officer who fought bravely during the Civil War until he was mortally wounded in battle in 1864. Camp Lowell was named in his honor in 1866, two years after his death. Lowell belonged to a prominent Boston family, whose members include poets Amy Lowell, James Russell Lowell, and Robert Lowell, as well as astronomer Percival Lowell, founder of Lowell Observatory in Flagstaff.

Lowell Ranger Station, through a long chain of historical events, inherited the name of a Civil War hero. Remember him next time you visit the old buildings east of the Visitor Center.

Photo above is of Charles Russell Lowell, 1835-1864. (Library of Congress)

Eating Stone: Imagination and the Loss of the Wild

By Ellen Meloy

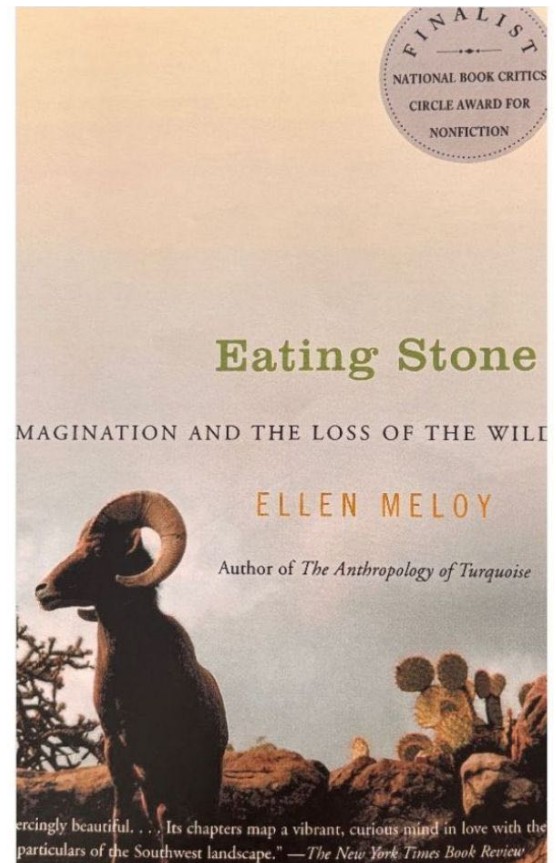
Review by Naturalist Rebecca, SCVN Librarian

“Animals, animals as beyond the reach of our dominion as they can be in today's world, no longer figure in our lives. Our distance from them, the thinkers say, has left us with the anguish of missing the wild that is no longer in ourselves.”

So wrote author Ellen Meloy, a fierce observer of nature and true conservationist who went to remote areas of the Colorado Plateau to observe the nature of four breeds of bighorn sheep. She traveled to Utah, Baja California, Mexico, New Mexico, California's Mojave Desert, and back to Utah. Weather permitting, it was a group of Utah sheep she called the Blue Door Band that kept her rapt attention.

Sightings of bighorn sheep in the 1920s to 1950s were rare, and by 1962 it was thought they were extinct. Then in 1983 boaters spotted a ewe and her lamb. Thirty sheep were spotted in 1995. In the fall of 2002, the Blue Door Band—named by Meloy for a collapsed structure in the canyon—numbered 80.

"Sitting, watching with binoculars in hand, taking naps, reading a bit, then with feckless abandon, swearing them off forever," wrote Meloy. Such was her passion for many of her golden years. Within the stillness of time, she waited, meditatively, observing their habits and mannerisms,



which helped quiet her messy mind.

Meloy's description of the rut may have you slam the book down in hopeless fret over her obsession with the rams' cantaloupe-sized testicles. Then again, it's highly unlikely that any of us have ever witnessed wildly crazed animals in rut. Lambing takes place from April through June for Nelson's Bighorns (also known as desert bighorn sheep) as the ewes seek the same lambing ground every year. Come June along the Colorado River, Meloy watched the frolicking young, butting anything, and exploding around like popcorn. Most of the time, however, she watched as they moved, fed, and slept.

Meloy's musings during her travels are highlighted by her lucid descriptions of seasons, water, clouds, rocks, cliffs, flowers, cacti, Jesuit priests, Hopi, Navajo—all of which showcase her eloquent metaphorical observations of nature and people along her journey.

“Wherever you are, wherever you go, there are untamed creatures nearby that need your attention,” said Meloy. “Unplug your modem. Slam shut your self-help books. Quit standing around like a wall trout. Get to work.”

Eating Stone can be found at the Pima County Public Library.

Dragonflies



There are a lot more dragonflies in Sabino Canyon's riparian area than there were a month ago. They're fun to watch but hard to ID. If you do get a photo or a good look, here's a website that may help you ID the dragonfly or damselfly you saw, [Arizona Dragonflies.org](http://ArizonaDragonflies.org)

Check out this video of a dragonfly growing wings, <https://www.youtube.com/watch?v=cyt4HtcMPgg>

Variegated Meadowhawk *Photo by Naturalist Kathy*



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/>



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