

Change is in the air...again

We bid farewell to Ranger Erika and Ranger Cameron, and we welcome Ranger Aide Megan and Student Intern Cassidy. Erika has been promoted to Senior Park Ranger in our Open Space Canyons Program, and Cameron has accepted a job as a Code Enforcement Officer for the Orange County Public Works Department. We wish them well in their new assignments and thank them for their contributions to Tri-Canyon Parks. They will be missed. Ranger Aide Megan will join us on March 11th. Megan is currently finishing up her college courses, and interning with the ranger staff at Los Penasquitos Canyon.



Cassidy, pictured above with Ranger Erika, was our junior volunteer and is now a student intern working with Tri-Canyons and the Open Space Canyons program. We look forward to working with Megan and Cassidy, and to hiring another ranger in the near future.

We will be short staffed during the transition please be patient as we adjust to the changes.



Ranger Erika and Ranger Cameron

Join us on Earth Day April 22nd!

Marion Bear Park off of Clairemont Mesa Blvd.

East Entrance, look for our canopy.

8:00 am ~ Bird Walk - beginners welcome! 8:00am - 11:00 am ~ Discovery table, simple crafts, and interpretive guides to answer any questions you may have about our Tri-Canyon trails, flora and fauna.



THE BIOCRUST Don't bust the Crust!

This is a photo of a small patch of Biocrust. It doesn't look much, does it? However it is an important living plant community. Variations of Biocrust are found worldwide in arid and semi-arid habitats. It is composed of mosses, algae, lichens, fungi, and Cyanobacteria



Cyanobacteria are green and can produce food by photosynthesis. Why is this exciting? Because it reduces erosion, prevents dust storms, increases soil fertility, captures carbon and nitrogen, reduces weed growth and sustains soil moisture. It is formed in open areas between larger vascular plants. How is it formed? Fungal and Cyanobactieria spores first colonize bare ground first, once the soil is stabilized the other elements of Biocrust are able to establish themselves. Once damaged by animals, off-road-vehicles or human hikers it can take hundreds of years to recover.



By Eloise Battle

Biocrust is sometimes referred to as Earth's Skin. It is estimated 12% of the terrestrial earth's surface hosts Biocrust. It was given little attention before the 1970s. As Biocrust's importance has been recognized research has increased dramatically worldwide. In the deserts of our southwest, Biocrust is widespread. Dr .Sasha Reed, a soil ecologist with the U.S, Geological Survey{USGS} in Moab, Utah, is one of several scientist studying Biocrust. To get a close up view she is often flat on her tummy on the ground. Just centimeters high, it is a craggy and a burnt looking carpet during the dry season. Reed's enthusiasm for this plant community is contagious and wellfounded. That's because she and the USGS, along with The Nature Conservancy, Northern Arizona University (NAU) and Rim to Rim Restoration, are attempting the world's largest-scale cultivation of whole Biocrust communities. If the team succeeds, they will achieve a major break-through for restoring Biocrust in the face of climate change-and it could help reverse ecological damage and protect human communities in drylands around the globe.

Energized, scientists began attempting to restore Biocrust by conducting a kind of skin graft for the desert: taking healthy crust from regions that were due for construction of roads or pipelines. First growing it in a greenhouse and attempting to replant it in another region where Biocrust is needed. The greenhouse Biocrust grew faster than expected, but there were major road block. Outside in harsher conditions it did not survive. Other techniques are under way growing Biocrust in outdoor areas. Dr Reed enthuses, "But this project, this is about hope. We are finding new ways to bring Biocrusts back on the landscape, and it just feels so useful and so helpful to the planet, and within drylands."

Enter "Biocrust" into your search engine to find a variety of articles on this fascinating plant community.

Eagle Scout Contributions

CeCe Campbell, who is 17-years-old, was honored on January 28th, at the Eagle Scout Court of Honor, where her friends, family members and the Scouts of Troops 506B (boys) and 506G (girls) attended in support of her amazing achievement. CeCe created a new geology display, and repainted the earthquake fault line map at the Tecolote Nature Center.



Congratulations CeCe!



Thanks to Eagle Scout Keenan De Paz from Troop 11 for the awesome new seed library! The seed library is similar to the book libraries you've probably seen in some neighborhoods. Once fully stocked, visitors can take native seeds, grow native plants, harvest some seeds and return them to the nature center for future plantings.

Congratulations Keenan!

Thanks to these two Eagle Scouts for their contributions to the Tecolote Nature Center.

Currently, we are not accepting new Eagle Scout candidates.

..."special thanks to volunteer Dick Crandall for modifying an unused cabinet and creating a base for the seed library."







We want to thank our regular canyon visitors Osyris and Tiberius Calvo for donating a full shed from their alligator lizard. It is 14 inches long!



The southern alligator lizard is a common species of lizard in the family Anguidae. The species is native to the Pacific coast of North America. They live in a variety of habitats including grasslands, chaparral, forests, and even urban areas. Scientific name: *Elgaria multicarinata*

Interesting Facts

- Alligator Lizards have the ability to detach their tails as a defense mechanism.
 - * The tail will grow back over time, but the process can be stressful and painful for the lizard.
 - * They are carnivores and eat insects, snails, lizards, small mammals, young birds and eggs.
 - * They are diurnal and usually do their hunting in the mornings and evenings.



A frequent visitor at the Gardena crossing is large wading bird, with a long, pointed bill and a graceful, S-shaped neck, the **great blue heron.** You may sometimes spot one gliding through the canyon, though they make their homes in trees and shrubs near marshes, tidal flats and open bays. Standing close to 5 feet tall with a wingspan up to 6'5' they are a favorite subject of bird photographers. ~ https://abcbirds.org/bird/great-blue-heron/

During our last couple of storms the plank at the Gardena Crossing was washed away. Thank you to our anonymous neighbors who found some of its parts and put the plank back together as a temporary fix Parks Rangers Steven and Tiffany replaced the entire plank with longer, sturdier boards, and not a minute too soon. Before the rangers could pack up their tools these



Volunteer Opportunities ~ Something for Everyone!

Jr Volunteers (community service)~ Native Plant Garden ~Tecolote Canyon Advisory Committee ~Weed Warriors
Environmental Stewards Canyon Program (ESCAPe)Docents ~ Interpretive Guides ~ Art & Crafts
Nature Center Hosts ~ Park Patrol

If you are interested in volunteering, we welcome you to come in and speak with any staff member.

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Please consider joining our Meetup.com group Friends of Tecolote Canyon and Nature Center as another way to stay connected with our events and the events of our nature loving partners. TCCAC meets at 6:30pm on the 3rd Wednesday of every month at the Nature Center. For more information about TCCAC you may contact Darrel Madison at .

Tecolote Nature Center

518o Tecolote Road San Diego, CA 92110

Hours of Operation*
Wednesday—Saturday
10:00am—4:00pm
Closed Sunday—Tuesday
Occasionally when
understaffed the
center may close on short
notice
The garden, patio, and
outdoor
restrooms are open
everyday.

In February, professors from the University of San Diego's Indigenous Studies programs brought their students to the canyon and nature center. We expect several Biology classes to visit in this semester. It is always a privilege to have the university staff and students taking advantage of their surroundings and utilizing the canyon as a resource.

