Edgewood Wins 2021 Biodiversity Conservation Grant

by Peter Ingram

In February, the National Environmental Education Foundation (NEEF) awarded \$220,000 in grant funding to support four biodiversity conservation projects on public lands within the California Floristic Province ecological region. The region includes 70% of California and extends into southwestern Oregon, a small part of western Nevada, and northern Baja California. The area was designated a "hotspot" in 1996—generally defined as a region with significant levels of biodiversity that is threatened by human habitation. To be named a biodiversity hotspot, an area has to contain plant life that cannot be found anywhere else in the world. According to NEEF, the California Floristic Province is home to over 3,000 species of plants, 60% of which are endemic to the province.

Though Edgewood is small, part of what makes it a significant piece of our huge hotspot is that its amazing biodiversity is seriously threatened by human activity, climate change, and invasive species. Edgewood's 467 acres equals just .064% of the region's area but is home to over a quarter of its endemic species.

Thanks to the efforts of the San Mateo County Parks Foundation, the Friends of Edgewood's Green Grass Initiative has received a two-year \$55,000 NEEF grant to improve grassland health by removing invasive species. The grant project aims to restore Edgewood's non-native grasslands to their former floral beauty and species diversity by reducing or eliminating weeds and promoting greater cover of native plants. By employing the best practices of grassland management, the Green Grass Initiative will support ongoing efforts to protect the Bay checkerspot butterfly, San Mateo thornmint, and white-rayed pentachaeta, all threatened or endangered species that call Edgewood Preserve home.

Importantly, the project also supports the in-progress experiment to determine the most effective methods for controlling non-native grasses and forbs. Under the guidance of Creekside Science, grassland test plots were established in late 2020 with treatments of mowing, dethatching, and hydro-mechanical pulverization, and are now being monitored and documented.

Another important goal for use of the NEEF grant funds is to inspire, educate, and engage the community about biodiversity conservation. To that end, we have launched the new "Trail Ambassadors Program" and new interpretive signs with QR codes are being installed to enable visitors to download site-specific information on their devices and in real time on the trail.

In the collaborative writing of the NEEF grant application, we cited several ongoing restoration and stewardship activities that will run throughout the grant period:

- Members of the Green Grass Group (3Gs) meet monthly to coordinate project tasks and timing. Participants include volunteers from the Friends, Weed Warriors leaders, and Creekside Science.
- Creekside Science and County Parks maintain permits and regulatory approvals for restoration work.
- Multiple project partners participate in regular interagency coordination activities such as attending meetings of the Weed Management Area.
- The Edgewood Weed Warriors work year-around, regularly engaging 10–15 volunteers each workday, to control targeted invasive weed species within the grasslands and other species as needed.
- Crews collect seeds in the field and maintain Edgewood Farms planting beds in the Day Camp area.

Winning this highly competitive grant has given Friends of Edgewood a wonderful COVID recovery gift of confidence that we are doing the right things for the ecology of the preserve and helping the many new Edgewood visitors understand why the grasslands are so special.

Special thanks to Michele Beasley, Executive Director of the San Mateo County Parks Foundation, and Holly Van Houten, Grant Writer. It was a fulfilling collaboration!

Incidental Sightings

by Sandy Bernhard

A hike or run in Edgewood any day of the week is sure to offer encounters with plants in flower, animals foraging, and people enjoying the trails. But I bet you've also noticed how often you encounter those other denizens of Edgewood Preserve—the many Friends of Edgewood volunteers.

If you come in at the main entrance during a weekday and see a fellow tending the native garden that graces the inner parking area, that's Howie Smith. Give him a wave! Then check at Edgewood Farms, tucked behind the picnic-area restroom, to see if Perry McCarty is working in the planting beds. Howie and Perry would be happy to chat about the joys and challenges of native gardening.

The woman wearing a Friends of Edgewood baseball cap and taking photos from the trail is likely Barrie Moore. Look for her cheery posts on our social media sites later that day. That group of people with bags in hand and eyes focused on the ground, walking slowly across the grasslands or kneeling in a woodland glade, are members of the Weed Warriors, led by Ken Himes and Paul Heiple. Ask them what they're tracking down today. In addition to the big crews, you might spot one or two lone weeders—folks like Kathy and Bill Korbholz, Jumbo and Trevlyn Williams, Erica Namba, and Carol Mathews—who've committed to caring for individual patches in some of Edgewood's most precious habitats. They'd love to tell you what they've discovered needs fostering.



Weed Warriors

Photo by Laurie Alexander

A volunteer stepping into the woods may be a cameratrapper monitoring a wildlife camera hidden off trail. Or maybe you're on the central ridge and spot someone far out in the butterfly habitat. They're likely checkerspotters, like Anita Stewart and Alf Fengler, counting Bay checkerspot butterflies. A fellow in a yellow vest out in the northern grasslands could be Perry again, gathering seeds for Edgewood Farms or checking bluebird boxes. And that couple you just passed on the Sylvan might be Frances and John Morse heading back from taking their turn monitoring the boxes; it's always fun to hear their news.

Did you just walk past a vehicle with a Creekside Science logo parked on the service road? It's a sure bet Christal Niederer is nearby, working on one of the many restoration projects the Friends helps support. And should you pass a San Mateo County Parks vehicle, give the rangers or work crew a nod of respect for the work they do keeping the preserve safe for us all.



Wildflower survey team

Photo by Gina Barton

On Wednesday mornings, a trail sighting of the wildflower survey team would be hard to mistake. Deanna Schiel carries a notebook for recording the blooms; Gina Barton has her binoculars or phone up, making observations for iNaturalist and eBird; I'll likely be holding my well-worn copy of *Flowering Plants of Edgewood Preserve*; and Caroline Bowker will be heroically wielding her trashpicker for picking up dropped masks and orange peels. Be sure to tell us if you saw something cool!

On the weekends, you're most likely to encounter one of our Trail Ambassadors, with their "Ask Me About Edgewood" buttons and masks. Maybe you asked one for a route suggestion or made her day by asking about a flower or lizard you just saw. If you happen to be driving along I-280 on the first Sunday morning of each month, you may spot more FoE volunteers armed with bags and trashpickers, our Adopt-a-Highway crew, led by Dave Hershey.

Each of these individuals is part of our Edgewood community—and if you're out in the preserve, you are too. A friendly wave, a smile, or a nod is all the thanks we seek. Who knows? In that brief stop to chat, you may discover the perfect place for your own volunteering to begin! �



Southern alligator lizard (Elgaria multicarinata)

Herps of Edgewood: An Updated Overview

by Roger Myers, Friends of Edgewood Docent Emeritus Throughout recorded time, reptiles and amphibians have often been vilified and made the object of irrational fears and biases. How many times on your

hikes has the random encounter with one of our scaly or slippery friends elicited an "eewww" or fearful shriek from someone in your group? Most of us within the docent community have come to understand that the vast majority of these fears and biases are unfounded. Indeed, we know that most reptiles and amphibians—also known as herps—are completely harmless, play an important role in the balance of nature, and can be as beautiful and fascinating in their own right as can the more popular birds, butterflies, and flowers.

Here at Edgewood, we enjoy considerable variation in terrain, vegetation, moisture, and soils. Such variation leads to increased diversity among its floral and faunal communities. This is true for the reptiles and amphibians as well. With its watercourses and shady forest cover, Edgewood provides a refuge for delicate amphibians such as the California slender salamander and Pacific tree frog.

The hot and often parched grasslands and chaparral are home to the more heat-resilient western rattlesnake and western (or Coast Range) fence lizard. In the ecological nooks and crannies between these extremes, we often find the southern (or forest) alligator lizard, western skink, and Pacific gopher snake. On a lucky day, we might spot a California kingsnake or western yellow-bellied racer.

Our Mediterranean climate tends to give us a "reptile season" and an "amphibian season." During the period of

cool winter rains, the reptiles seem to disappear for the most part. One may spot a determined (or desperate!) fence lizard basking on a sunny rock between storms, but that's about it. Being cold-blooded (Can you say "ectotherm"?), a reptile's activity level decreases proportionately to the ambient temperature. The reptiles don't really hibernate, but rather enter into a state of inactivity. When in this state, they need very little in the way of food and rely largely on fat reserves taken on during the summer. All their bodily functions slow down to less than a crawl (... sorry!). In fact, a fence lizard revealed by overturning a rock or log might often be so cold that it is completely unable to move. It is not deep in hibernation or asleep. It is awake. But it just can't do a darn thing to respond to the situation.

Though also cold-blooded, amphibian physiology allows these creatures greater mobility and activity than their reptilian cousins during winter's chill. Slender salamanders appear to venture out into the grasslands and can be found under pieces of dead wood or rocks where they could never survive in the summer. In truth, they probably do not migrate so much laterally as they do vertically. When summer returns to the grasslands, the salamanders move ever downward along cracks or burrows in the soil to wait out the summer heat in the cooler, damper darkness below ground. When the rains return, they move back up to forage at the surface.

Pacific tree frogs also frantically work to make hay while the rain falls (a fractured metaphor, admittedly, but you get the idea). In wet winters, the ever-optimistic (or simply randy!) creatures seek out the vernal frog pond along the Sunset Trail to take a chance at beating the odds and producing a new generation of tree frogs. Many a spring I continued on page 7



Western fence lizard (Sceloporus occidentalis)
Photo by Alf Fengler. Photo at top of page by Laurie Alexander



Resources to Help You Learn about Edgewood Grasses

by Bruce Homer-Smith

Grasses have a reputation for being difficult to learn about. Their parts are small and have specialized names. There are hundreds of species and they look similar to the untrained eye.

However, with a little patience, you can start distinguishing significant differences in grasses. For instance:



California Canary Grass (*Phalaris californica*)

- Has a spike-like inflorescence.
- Florets are hidden.
- It has no bristles (aka awns).

Photo by Toni Corelli (CC BY-NC 3.0)

California Brome (*Bromus sitchensis* var. *carinatus*)

• Has a branched inflorescence.

• Florets are visible.

• It has bristles (aka awns).

Photo by Wilde Legard (CC BY-NC-SA 3.0)



At Edgewood, we have 22 bunch grasses, 34 single-stem grasses, 7 rushes, and 8 sedges. Here's how to distinguish them.

Bunch Grasses

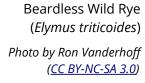
- Are true grasses, with reproductive parts in spikelets.
- They're perennials.
- Each year, new stems grow from the same root ball.
- They look bunchy.

Single stem grasses

- Are true grasses, with reproductive parts in spikelets.
 - They're annuals, or
- They're perennials that grow from stolons or rhizomes.
 - They grow in colonies, like in a lawn.



Tall Melica (Melica frutescens) Photo by Keir Morse (CC BY-NC-SA 3.0)





Rushes Sedges

- Are round.
- Stems are solid and round in cross section.
- They're grass-like, but have tiny 6-part flowers instead of spikelets.



Baltic Rush (Juncus balticus) Photo by Wilde Legard (CC BY-NC-SA 3.0)

Blackish Sedge (Carex subnigricans) Photo by Steve Matson (CC BY-NC 3.0)



• Most stems are triangular in cross section.

• Their reproductive parts are not protected,

· Have edges.

or are protected by scales.

PlantID.net now has tools to help you learn your local grasses. Here's part of the Edgewood Grass Search page:

Grasses	Typo	NK	Act			
Introduction	Туре	W	TAMO			
		Bunch Grass	Single-Stem Grass	Rush	<u>Sedge</u>	
<u>Alf's Key</u>	Typical Height	1'	3'	5'		
		1 foot	3 feet	5 feet		
	Inflorescence					***
	9	Spike-Like	Branched		Has Awns I	No Awns

When you visit the page, if you are unsure about a search term, click it to see its definition. Click "Alf's Key" to see a simplified key to Edgewood grasses that you can print out. A great way to learn grasses is to make a point of sitting with a new grass and comparing it to Alf's key each time you visit Edgewood.

PlantID's simple searches, comparison tools, and illustrated genera descriptions will help you learn about grasses and develop an eye for how they differ. Even if you don't always get to species, you'll start to notice features you used to miss.

Want more? Check out Bruce and Alf's Zoom presentation on how to learn about Edgewood's grasses at youtu.be/KrJGaWmtMzU.

Grasses are complex, which is wonderful. They reward close attention and study. Use <u>PlantID.net</u> to focus on a particular grass and learn about it. Have fun with it! ❖

New Trail Ambassadors Guide and Inform Visitors

by Kathy Korbholz

The Trail Ambassador Program has been operating since mid-March. Through these first three months we have logged 100 sessions conducted by 24 different ambassadors. These volunteers have encountered more than 700 visitors and offered to help with directions or plant identification. The Trail Ambassadors carry a card with a QR code that has a QUICK Link to useful Edgewood-specific field information. You can access this same information by using the following link: friendsofedgewood.org/quicklinks. From there you can:

- Download a color trail map (PDF).
- Learn more about Edgewood's plants.
- Reach the Friends of Edgewood Field Guides: <u>friendsofedgewood.org/field-guide</u>.
- Investigate Edgewood plants at PlantID.net (with links to Field Guides, an in-depth treatment of 80 plants).
- Access the Friends of Edgewood Weekly Wildflower Survey: <u>friendsofedgewood.org/edgewood-wildflower-survey</u> (also with links to Field Guides and PlantID.net).

Trail Ambassador Kathryn Strachota fielded a whimsical question. The visitor wondered "whether flowers that open with the sun have different schedules. She thought that red maids might like sleeping in and opening up later than poppies."

If you cross paths with one of our wonderful Trail Ambassadors wearing an ASK ME button or face mask, be sure to say hello and thank them for their participation. ❖





Barn owl nest box

Photo by Barrie Moore

Whoo Lives Here?

by Barrie Moore

Many visitors have been asking about the big, white box mounted on a pole that you can see from the Clarkia Trail. That is a new nest box that was installed this past fall and designed to attract the American barn owl.

The white color of the box reflects light, which reduces heat absorption, so the chicks stay comfortably cool. Look for signs like feathers and poop under the box to tell whether any owls have adopted it as their new home.

A generous neighbor donated the box to Edgewood with permission from the San Mateo County Parks Department.

The neighbor will monitor and maintain the box.

Learn more about barn owls in the Edgewood Field Guide (friendsofedgewood.org/barn-owl). ❖

Barn owl (*Tyto alba*) *Photo by Jean Beaufort* (<u>CC0 1.0</u>)



Herps continued from page 3

have watched their efforts dry up before the little tadpoles have a chance to metamorphose and hop away to safety. I'd like to think they win more often than lose. But they appear to at least be holding their own.

With the onset of warmer, drier weather, the amphibians recede to seek shelter in cool, damp recesses and leave the Edgewood stage for the reptiles. Since more of us tend to be walking the trails in spring, summer, and fall, we are more likely to encounter a reptile along the way. Many of us may have never even seen an amphibian at Edgewood except, perhaps, for the tadpoles in the frog pond in early spring. Amphibians also tend to be nocturnal and secretive. If you want to find them you often have to actively search for them in their hiding places, a disruption we endeavor to avoid here at Edgewood.

The Friends of Edgewood website lists 13 species of herps that have been observed in Edgewood, most of which I have seen on the preserve and previously mentioned. From my observations at Pulgas Ridge and in the neighborhoods surrounding Edgewood, I am fairly confident that there are northern alligator lizards on the preserve that have been seen and mistakenly presumed to be the far more common southern alligator lizards. Only a close examination by someone who knows what he or she is looking for can tell the difference. An interesting fact about the two species is that the southern alligator lizard lays eggs while the northern alligator lizard bears living young!

There is also an unverified report I heard from one of the rangers of a Pacific giant salamander being observed once while clearing a culvert near the intersection of Edgewood Road and Cañada Road. Curiously, our most commonly seen local amphibian, the California newt, has not been observed at Edgewood or Pulgas Ridge to my knowledge.

If any of you are fortunate enough to spot a species of herp not on the official Edgewood list, please be sure to report the sighting to info@friendsof edgewood.org.

Though long removed from the Bay Area, I still look back fondly upon my days as a Friends of Edgewood docent encountering my herp friends along the trails of Edgewood. (Roger Myers moved to Colorado in 2001.) �

Want to get involved? Volunteer opportunities are always opening up!
Friends of Edgewood can help match your interests, skills, and energies with a fun, rewarding role.
Write us at get-involved@friendsofedgewood.org.

Become a Friend of Edgewood!

JOIN or RENEW your membership ONLINE or by MAIL:					
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Friends! A sustaining membership lets you make a monthly donation via your credit card and have a huge impact on programs like Project 467, Junior Explorers, and more. Can you spare just \$5 or more per month to support Friends of Edgewood and the park we love?

Go to <u>foew.org/donate</u>, and follow directions to become a sustaining member, or email us at <u>mem@friendsofedgewood.org</u>, and we will help you get set up.



Friends of Edgewood Natural Preserve 3 Old Stage Coach Road Redwood City, CA 94062-3801

ADDRESS SERVICE REQUESTED

Bill and Jean Lane Education Center at Edgewood Park and Natural Preserve

Closed until further notice.

Please check the website for the latest information.

To learn more about Friends of Edgewood, visit our website at <u>foew.org</u>, call or fax us toll-free at (1-866) GO-EDGEWOOD, or email us <u>info@friendsofedgewood.org</u>.



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Edgewood **EXPLORER**

SUMMER 2021 • VOLUME 28 NUMBER 2

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- → Edgewood Park and Natural Preserve is open for hiking and equestrian use.
- → Please review trail maps, obey signs, and stay on approved trails.
- → If you are unvaccinated, you must carry a mask and wear it when you cannot maintain 6 feet social distance from others.
- → Restrooms in the picnic area are open.
- → Picnic areas are open for drop-in use.
- → The Bill and Jean Lane Education Center remains closed.
- → Restrictions may change at any time.

 Check our website at foew.org for current information.

The Edgewood EXPLORER is published quarterly by Friends of Edgewood Natural Preserve, a nonprofit organization dedicated to preserving and restoring Edgewood and educating the public about its treasures. Friends of Edgewood Board of Directors: Laurie Alexander, Sandra Bernhard, Kathy Goforth, Peter Ingram (president), Bill Korbholz, Kathy Korbholz, Linda Leong, Angela Mallett, Perry McCarty, Barrie Moore. The newsletter is edited by Michele W. Conway and supported by contributions from many Friends.