

# Native Garden and Ed Center Highlight 4R's

Story and photos by Barrie Moore

Through a generous grant from the San Mateo County Office of Sustainability, Friends of Edgewood has been able to make improvements to the native garden and add new educational materials to the Education Center. The 4R's grant program is designed to promote sustainability and divert waste from being sent to landfills. 4R's stands for Reduce, Reuse, Recycle, and Rot.

Volunteer Howie Smith manages the native garden and has done an incredible job adding new paths that allow visitors to get a closer look at our native Edgewood plants and explore the garden in a more intimate way. The new paths are permeable and use wood chips recycled from the

preserve. We also reused downed branches and tree stumps to create the path edging, and we rely on rot in the form of composted plant materials as mulch. By using native plants adapted to our climate, we reduce our use of water.

Eight new interpretive signs have been added, including one up near the Edgewood Farms seed beds. The signs introduce visitors to plants found in three important Edgewood ecosystems (oak woodlands, grasslands, and chaparral) and explain the role of wildlife in the garden, the importance of decomposition, and the advantages of creating your own native garden.

To highlight ways a native garden can be more eco-friendly and sustainable, we created new educational banners and a slideshow presentation for the Education Center. Laurie Alexander, program coordinator for Junior Explorers and the Education Center, also developed a fun interactive activity for children to explore how decomposition works.

Howie, Laurie, and I were co-leaders on the project and

wish to extend special thanks to Marco Casazza, Sandy Bernhard, Kathy Switky, Vanessa Wyns, Jose Quezada, Alf Fengler, Ken Hickman, Martha Vercoutere, and the Edgewood Park Rangers who supported our efforts. We couldn't be prouder of what we have created.



#### the WOODS

Can you predict what will happen to each object after 16 weeks on the woodland floor?

We found these objects nearby. We put them in boxes of duff for you to investigate close-up.

Describe each item out loud to a friend. Note the color, thickness, whether it seems hard or soft. What else do you notice?



In what ways are items similar or different from each other? How do you think the objects will change over 16 weeks?





#### **Volunteers Stepping Up**

#### **New Team Expands Weekly Survey**

by Sandy Bernhard

A new team of four docents – Deanna Schiel, Sandy Bernhard, Gina Barton, and Caroline Bowker – has taken on the task of conducting a wildflower and bird survey at Edgewood each week.

The stalwart team of Mary and Dennis Wilson led Friends of Edgewood's Bloomin' Surveys twice a week all year round from 2012 to early 2020. We are tremendously grateful for and inspired by the Wilsons' dedication and by the legacy of Dianne Hunt, who initiated these surveys back in 1998.

Each team member has a specific task: Deanna records species on her clipboard and later types up the list; Gina tracks birds and takes photos to post on iNaturalist; Sandy writes a note with walk highlights and botanical tidbits; Caroline (at right) keeps us focused and valiantly collects litter.



Altogether, four pairs of eyes and ears spy out what's up at Edgewood, whether it's that final blossom on a flax-flowered linanthus (*Leptosiphon liniflorus*), the first flowers on a male coyote brush (*Baccharis pilularis* subsp. *consanguinea*), a 4-point buck relaxing in the shade, or the call of an uncommon visitor, a Western tanager (*Piranga ludoviciana*).



The published survey records blooming plants by trail and in the order in which we encounter them. We also note other interesting things we encounter along the way. You can find

the current survey posted and past ones archived at friendsofedgewood.org/edgewood-wildflower-survey.

If you'd like to get the survey each week via email, with links to iNaturalist and eBird observations and Sandy's note, just let us know: <a href="mailto:bloomin-coordinator@friendsofedgewood.org">bloomin-coordinator@friendsofedgewood.org</a>.



Western tanager photo by Sally King, NPS. Flax-flowered linanthus photo by Sandy Bernhard. Volunteer opportunities are always opening up, bringing fresh energy to long-time projects or newly created ones. Friends of Edgewood can help match your interests, skills, and energies with a fun, rewarding role. Write us at get-involved@friendsofedgewood.org.

#### New Volunteers' Skills Match Roles

by Sandy Bernhard

In other volunteer news, docent Emily Fawcett has taken on the role of Volunteer Enrichment Coordinator. Our enrichment program offers volunteers fun, informative talks and walks led by experts from inside and outside our organization on a range of natural history topics. These events are online for the present, but Emily, a high school English teacher, has some recently acquired experience with Zoom technology and is game for the task.

Sue Lindner, a member of the interrupted 2020 docent class, is bringing her expertise as a tech writer to a new volunteer position: Manager of Nomenclature. She'll be helping us keep and coordinate our plant lists. Each of Edgewood's over 500 plant taxa has a unique scientific name and often several informal, "common" names, which are deployed in a variety of online and print applications. We strive to keep up with nomenclature changes and maintain consistency, so we are grateful for Sue's help! •



Docent Caroline Bowker spotted this long-tailed weasel (Mustela frenata) on the Baywood Glen trail the morning of July 1 and snapped this photo. This is the first documented sighting of this species in Edgewood.

# **Bay Checkerspot Butterfly Hangs On in Edgewood**



by Christal Niederer, Creekside Science

The Bay checkerspot butterfly, the beloved mascot of the Friends of Edgewood, continues to hang on at Edgewood. Its presence in the 1990s helped tip the scale from Edgewood's proposed fate as a golf course to its destiny as the Natural Preserve we all love. Unfortunately the butterfly was extirpated in 2002, a victim of dry nitrogen deposition from Interstate 280 that fertilized the nonnative Italian ryegrass that outcompeted the butterfly's host plant.

Since 2007, this project has been underway to re-establish a Bay checkerspot butterfly population in restored habitat. Coyote Ridge in Santa Clara County maintains hundreds of thousands of butterflies and is the source of transferred caterpillars and adults.

The project had an estimated high of about 4,000 caterpillars in 2014. This declined to 2,300 in 2015, then dropped drastically to the low hundreds in the last four years. Adult observations have followed the same trend.



Our volunteer Checkerspotter team walks an off-trail permanent monitoring course in the high-quality serpentine butterfly habitat on sunny days during the flight season, recording where they see any adults. In 2014, they observed a high of 800 adults, which dropped to 451 in 2015, then 78 in 2016. The observations have since declined even more to a mere 6 in 2020. Although numbers were disappointing, checkerspotting is a socially distanced activity, and sanctioned park access during the shelter-in-place order and park closure was a huge perk for these volunteers this year.

So what's going on? The habitat still looks great: the host plants and nectar sources are abundant in their habitat area. COVID-19 put a hold on San Mateo County Parks staff's mowing, but Creekside Science was able to complete some targeted mowing for purple falsebrome in the butterfly habitat area.

Spring 2020 was cool, which is an important factor that helps host plants stay fresh longer as the tiny caterpillars race to become large enough to enter diapause (their dormant state) over the long, dry summer when they have nothing to eat. Yet the Bay checkerspot butterflies are continually failing to reproduce at replacement rates. Edgewood may lack the steep north-facing slopes that remain cool enough to maintain fresh host plants even longer into the season, especially in the face of rising spring temperatures.

It's also possible that the transplants from Coyote Ridge, a much larger area, may be less in tune with habitat edges than the original butterflies that were adapted to Edgewood. Perhaps the new transplants are more likely to fly into inappropriate habitat and miss out on chances to mate. The current strategy is to observe whether stopping translocations and maintaining Edgewood stock selects for more sedentary animals, with the idea that the ones that survive are best adapted to Edgewood. We honestly don't know what the future holds for Bay checkerspots at Edgewood, but we're glad to see they're still hanging on and hope they continue to flutter above its beautiful wildflower displays.

We remain grateful to the following partners for financial support, volunteer time, and excellence on the job: U.S. Fish and Wildlife Service (USFWS), San Francisco Bay Wildlife Society, PG&E, San Mateo County Parks, San Mateo County Parks Foundation, Friends of Edgewood, and, of course, the Edgewood Checkerspotters. ❖



#### **Get Mail Your Way**

Did you know you can specify

how you'd like to receive different communications from Friends of Edgewood? You can choose to get donation receipts, reminders, and the newsletter on paper, or electronically, or both. Do you want paper receipts and an electronic newsletter? No problem! Just email us at <a href="mem@friendsofedgewood.org">mem@friendsofedgewood.org</a> and let us know your preference for each option. And be sure to tell us if your address or email changes.

#### **Hayfield Tarweed Still Blooming**

by Bruce Homer-Smith

I love the scent of hayfield tarweed (*Hemizonia congesta* ssp. *luzulifolia*) – for me it is the smell of fall. The smell comes from tar at the tip of glandular hairs that cover the plant's green surfaces.

Edgewood weeders know this smell – the tar sticks on their socks and shoes as they walk through our grassy fields.



Tarweed fills an important ecological niche. When other blooms are dying in the fall, tarweed fills grassy fields with tens of thousands of small Aster family flowers.

These late-season blooms provide critical nectar and pollen to native bees and other pollinators who need food all year long. The tarweed benefits from their attention.



Hayfield tarweed has several characteristics that allow it to be successful blooming in the hot dry months of July to October. Its many hairs shade green surfaces, reducing heat. The oil-based tar adds a partially waterproof barrier. The tar also prevents hungry animals from grazing its



narrow leaves. Tarweed has a long root which can reach for water and store it underground, away from the sun.

Edgewood's hayfield tarweed subspecies has a distinctive composite flower. White petals are arranged in a pattern of two wide petals surrounding a narrow one. In fact, each group of three petals belongs to a single ray flower. The picture above shows seven single ray flowers. Several dozen male disc flowers cluster in the center. Each has a greenish-white corolla surrounding large purple anthers.



Photo by Steve Matson <u>CC BY-NC-SA 3.0</u>

In the view at left, you can see the green, sticky phyllaries under the flower. Each maturing fruit (a seed covered in a dry coating) has a phyllary wrapped around it. When ready, the fruit

and sticky phyllary fall as a unit. The sticky covering allows the seed to hitch a ride on a passing animal.

For more on Edgewood's hayfield tarweed, check out <a href="https://PlantID.net/?">https://PlantID.net/?</a>
TaxonRpt=Hemizonia+congesta+ssp.+luzulifolia

Do you have a favorite Edgewood wildflower or plant? Please tell me about it at <a href="mailto:bruce@plantid.net">bruce@plantid.net</a>.

Find a full, searchable, interactive Edgewood Plant List at <a href="http://plantid.net/?PlantList=Edgewood+Preserve">http://plantid.net/?PlantList=Edgewood+Preserve</a>.

## John Muir Laws Offers Tools to Observe Better, Learn More

by Michele W. Conway

'I can't draw. It's not a skill I have and it's a skill I am never going to have.' Bay Area naturalist John Muir (Jack) Laws says lots of people – especially adults – say that. Jack helps people of all ages connect with nature through art, science, and education – particularly by nature journaling. Nature journaling is a tool that helps people deliberately focus their attention. It helps people see more, remember more, he says.



Jack knows, from what modern neuroscience is showing us and from his own experience as a learner, teacher, and mentor, that anyone can develop nature drawing skills with practice. To develop a skill you need to do it, he says. The more you do it, the better you get and that gives you reinforcement and delight. And it doesn't take 10,000 hours. It takes about a year. He says, "Silence the inner critic and give yourself permission to start where you are, and then stick with it."

Jack's parents loved nature and consequently he spent lots of time in nature. "I had opportunities to meet naturalists who were amazing observers, and I wanted to be like them." His mother noticed his interest in drawing and gave him his first nature journal. As a person with dyslexia, Jack found the traditional ways of learning in school difficult. Spending time in nature and drawing helped him find a different way of learning.

Eventually, that led to his career. "It's not like there was a place where I was going – it's where I ended up. It will continue to change." He figures out what gives him meaning and what skills he needs to do that better. Then he works at those skills.



Before the pandemic,
Jack taught seven nature
journaling classes a week
throughout the Bay Area
and led a nature journaling
field trip once a month, in
addition to speaking,
writing, and working
with teachers and
environmental educators
to develop curricula and
programs.

Jack had no experience with online teaching, but true to form, he "dove in." Now he says he is busier than ever. He teaches three online classes a week and people all over the world are participating. He says he is reaching more people than before, by orders of magnitude.

He continues to find ways to support students and

teachers in schools. To young people, Jack says that now it's more important than ever to understand nature in order to make good decisions. It is a duty and a privilege. Live life as a steward. It will be frustrating and heartbreaking at times, but then you go back to nature

A resident of San Mateo County, Jack describes Edgewood as part of his backyard. He says he is deeply grateful for what Friends of Edgewood does, and that feeling is shared by many people. "You [Friends of Edgewood] are seen, honored, and respected. and motivate us to

do better. Lots of

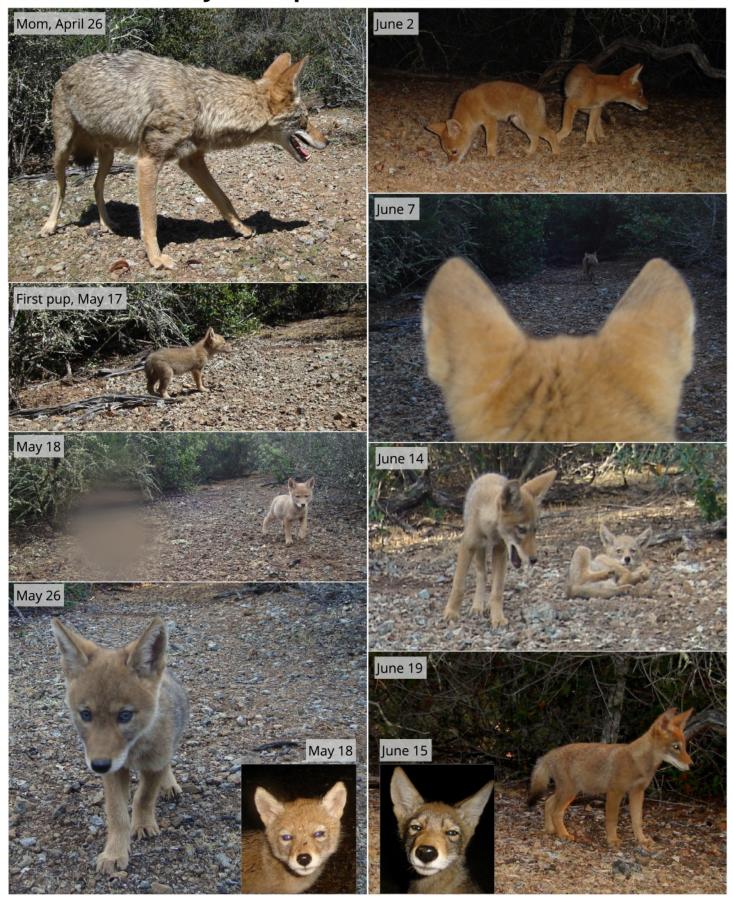
and start again.



things can go wrong, but I try to look for things that can go right. Edgewood is a testament to what can happen if people work together."

John Muir Laws was featured in a Bay Nature On the Air segment demonstrating nature journaling at Edgewood: johnmuirlaws.com/nature-journaling-at-edgewood-park-video/ Learn more about his classes and publications at johnmuirlaws.com. Classes are free. Suggested donations enable him to continue to offer these programs connecting people to nature through art.

A Tale of Two Coyote Pups Camera trap set up and monitored by Ken Hickman (with permit)





## Authors Seek Funds to Publish New Flora

by Mila Stroganoff, with Doug Allshouse

The Natural History of the San Bruno Mountains, by Doug Allshouse and David Nelson, lists all of the plant species on the mountain. Full-color photographs show the flower, leaf, and whole plant, as well as any special feature such as a thorn, seedpod, etc. Special attention is given to the rare plants that grow only on San Bruno Mountain and nowhere else in the world. In order to understand the complete story of San Bruno Mountain, the book includes the political history as well as the relationships of the plants to the animals, to the geology, to the climate, and to the life-giving fog.

\$75,000 is needed to publish the book and a Go Fund Me site has been set up for this purpose:

 $\frac{https://www.gofundme.com/f/the-natural-history-of-the-san-bruno-mountains.}{}$ 

Doug Allshouse has a saying: "I hope the mountain bites you, because once the mountain bites you, you stay bitten." Doug has been leading field trips on San Bruno Mountain since 1996. David Nelson was "bitten" by the mountain when he attended one of Doug's field trips in early 2013.

Just two weeks after that field trip, they began working together on the book documenting the flora of the mountain. They met practically every Saturday for almost six years. 45,000 photos and 538 plant descriptions later, they have been fine-tuning their manuscript for publication by Heyday Books in Berkeley.

Profits from the book will go to Heyday Books, to cover their costs of editing, layout, and distribution, and to the California Native Plant Society (CNPS) and San Bruno Mountain Watch. The authors are donating their time and the manuscript to the California Native Plant Society.

Doug says, "We hope that the book will serve to awaken those who buy it to see San Bruno Mountain in the same light as David and I do, and hopefully commit to its conservation as an ark and home to the largest existing piece of the Franciscan Landscape. We want this book to set a new standard for future floras."

Photos by David Nelson. (R) San Francisco Lessingia (Lessingia germanorum), SBM's only federally listed endangered species. (Top) Common Campion (Silene scouleri), being studied by CNPS for endangered species protection.



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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

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# 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

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#### SAVE THE DATE

→Friends of Edgewood Annual
Member General Meeting will be
Sunday, Oct. 4 from 3:30 to 5 p.m.

This year we will gather virtually via Zoom, but we'll still have a chance to visit with one another and learn about important projects that are going on in the preserve. More details will be sent out soon.

→Not yet a member? Now is a great time to join! See page 7 for membership 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, Lara Fox, Kathy Goforth, Peter Ingram (president), Bill Korbholz, Kathy Korbholz, Linda Leong, Angela Mallett, Perry McCarty, Barrie Moore, Todd Reimche. The newsletter is edited by Michele W. Conway and supported by contributions from many Friends.