Edgewood Explorer PRESERVE - EDUCATE - RESTORE

March 2017 Volume 24 Number 1

Improved Parking Safety Along Edgewood Road by Kathy Korbholz



New roadway berm provides safe access to Edgewood Park. © 2017 Kathy Korbholz

See something, say something. That's what Mickey Salgo and Bill Korbholz did last May when they saw a safety concern and took They were action. concerned because the parking berm along Edgewood Road, west of the Preserve entrance, was clearly unsafe. Drivers had to exit their cars directly into the bicycle lane and very near traffic zipping by at over 45 miles per hour. Passengers had to exit onto extremely uneven ground next to a steep drop-off leading down to Cordilleras Creek. Then everyone

had to either walk in the traffic lane or balance along a treacherous pathway to the outer parking lot.

Mickey and Bill brought their concerns to Ranger IV Stephen Kraemer, and Stephen helped organize a meeting with San Mateo County Public Works Deputy Director of Road Services, Joe LoCoco. Stephen also found funding within the County Parks Department to pay for the mitigation work. The results of those meetings and that funding were two-fold. First, Public Works installed a flashing speed sign at the Preserve entrance to let drivers know how fast they are going when they drive by Edgewood's external parking lot. Second, Public Works completely reworked the entire berm area. They widened the area, leveled it, and added a fence adjacent to the streamside. Now, motorists can park far enough off the roadway that they no longer need to exit their cars too close to traffic, and visitors walking to the Preserve can walk along a level pathway, on a path wide enough to accommodate strollers and along a fence that protects against falling down the embankment.

We thank Stephen Kraemer for shepherding this project and seeing it through to completion. A big shout out to everyone who was involved in allowing Edgewood Preserve guests a safer experience. Bill Korbholz exclaimed, "I think they did a fabulous job, even better than I had envisioned!" *

A Fond Farewell to Edgewood Unsung Heroes by Kathy Korbholz.



Photo: Peter Alley and Carolyn J. Strange at the 2013 General Meeting. © 2013 Kathy Korbholz.

Carolyn Strange and Peter Alley, Edgewood neighbors since 1998, recently moved from their prime view overlooking the Preserve to a new community in the East Bay. Our organization is diminished by their absence. Since 2003, their nearness to Edgewood prompted the socially conscious couple to volunteer their time and considerable talents to support the Friends of Edgewood (the Friends). (continued on Page 2)

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Carolyn, a noted science writer, is a frequent contributor to Bay Nature, the Bay Area's premier nature magazine.

She also wrote almost two dozen articles on natural history subjects for our Edgewood Explorer newsletter, on topics ranging from turret spiders and banana slugs to mistletoe and mycorrhizal fungi. Many of these entertaining but always impeccably researched articles live on in our docent training material.



Carolyn at docent wrap-up.

Carolyn was particularly good at intriguing her audience with attention-catching first lines. Here's an example from a 2007 article on the rare Bay checkerspot butterfly returning to Edgewood: "Edgewood County Park and Natural Preserve is renowned for its spring wildflower displays, but this year's buzz will

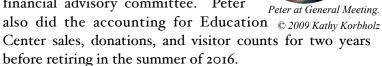
be about what's fluttering above the © 2005 Kathy Korbholz flowers and munching below." Her artfully written articles consistently choose the perfect words to convey complex concepts.

Carolyn also invented a column for this newsletter entitled Edgewoodiana, which invited readers to submit their questions by asking, "Do you wonder as you wander, pondering mysteries about Edgewood and its denizens?" From Sudden Oak Death to a discussion of ticks and lizard lore to explaining our Weed Warrior triage strategies, Carolyn had the answer. Just search for Carolyn's name in our newsletter archive on the FriendsOfEdgewood.org site

and delight in her many, well-crafted, intriguing sciencebased articles.

Carolyn first became an Edgewood wildflower docent in 2003, and she served as the program coordinator from 2004 through 2006. Carolyn also served on our Executive Committee, predecessor to today's Board of Directors, from 2005 through 2008.

Peter Alley was first elected to our Board in 2008 and served until 2011. As Treasurer for those four years, Peter used his business acumen to help set up a much more sophisticated financial record keeping system. Even after he retired from being our Treasurer, he volunteered to be part of a fledgling financial advisory committee. Peter



Both Peter and Carolyn helped us with our "Powers of 10" celebration, Friends of Edgewood's 10th birthday party, and participated in the 2008 Friends of Edgewood 5-year visioning and strategic planning effort. When the Bill and Jean Lane Education Center opened in 2011, they both became faithful hosts. Their familiarity with Edgewood and willingness to share information made them perfect ambassadors for the Preserve and the Friends. There is no way to thank them sufficiently for all their numerous contributions to our organization. We will miss them dearly. ♥

Treasurer's Report for 2016

by John Morse

For the calendar year 2016, we were again supported primarily by those who love Edgewood Park. Over 97% of our operating income came from membership dues and donations from both members and non-members. The rest came from interest on our endowment, merchandise sales, and fees we charge for docent training materials.

We use the money we raise to carry out a variety of programs in support of the Park. Of our Expense Budget, approximately 37% went for habitat stewardship primarily, our efforts to eradicate non-native plant species (weeds) from the park. About 16% went toward our

docent walks, including publicity and the cost of

providing training for our wildflower walk docents. About 12% was spent to support the ongoing operation of the Education Center. The remainder was used to pay for such things as publishing and mailing the Edgewood Explorer newsletter and general operating costs.



The most gratifying part of my job as Treasurer is to see first-hand the support we receive from you, our members and friends. It is only through your generosity that we can do what we do.

Bryophytes and Early Blooms...a Rainy Reprisal

by Mary Wilson

Editor's Note: Mary Wilson retired from College of San Mateo where she was a part-time professor of biology. She led our January 2013, Third



Saturday, nature walk focusing on ferns and bryophytes, and a brief introduction was printed in the March 2013 'Edgewood Explorer'. The following paragraphs provide a continuation of what Mary learned while preparing for her hike.

Bryophytes are the mosses and liverworts that green up and become conspicuous only during our cool, wet winter.



Photo: A gemmae cup on Lunularia liverwort.

REPRODUCTION

Both liverworts and mosses can be cloned when fragments are carried off by banana slugs, rolling rocks, or mouse feet. The fragments can grow into complete plants when they fall into a moist environment. This is asexual reproduction--no mixing of different genes occurs. Liverworts and some mosses clone themselves by producing gemmae, small, multi-cellular structures that grow into exact copies of the parent plant. These are produced in gemmae cups in the liverworts, such as Lunularia. Lunularia has "moon" in its name because its gemmae cups are half-moon shaped rather than circular like its relatives. Gemmae cups hold small, oval gemmae and are shaped to splash out of the gemmae when rain falls. Each gemma can grow from both ends to form new thallus chains.

The bryophytes also have sexual reproduction as well. They produce spores rather than seeds. In mosses, the spores are produced in oval capsules that are raised on long-lived stalks above the parent plant. Characteristics of the capsules are

important for identifying various mosses. similar to the importance of flower characteristics in identifying a flowering plant. In many liverworts, spores are produced in spherical, black capsules at the top of stalks that are flimsy and short-lived. In Lunularia and Asterella, two complex thalloid liverworts at Edgewood, the capsules containing the spores develop under the fingers of tiny umbrella-shaped structures that lift the capsules up into the air so the spores can blow away. Asterella, the umbrellas look like tiny balls, one per thallus, before they are lifted up. In spring 2013, only Asterella made the umbrellas (archegoniophores) and only Lunularia made gemmae cups. That helped me identify the two species. It is apparently rare for a given patch of Lunularia to make archegoniophores, and when they do appear, they are white, not green like Asterella.

IDENTIFICATION

Identification of the mosses at Edgewood is difficult unless a moss is so distinctive that it can be identified from photographs. To identify most mosses, it is necessary to make slides of moss leaves and capsules and examine them with a microscope. Because Edgewood is a Natural Preserve, this is not allowed without a permit. One moss is very distinctive, though. It is Dendroalsia abietina, a large, creeping moss found on tree trunks. When it is wet, the ends of Dendroalsia branches sweep out from the trunk like miniature fern fronds. During the dry times of the year, these same ends curl inward and downward and look like dry, brownish curlicues. Look for this moss during your trips up the Sylvan Trail.

MORE ABOUT HOW SPORES ARE PRODUCED

Some mosses have separate male and female plants, but other species can produce both swimming sperm and the eggs on the same plant. When conditions are right, each egg can be produced in its own long-necked, flask-shaped archegonium. Sperm cells are produced by the hundreds in oval structures called antheridia. These structures form on the tips of upright moss plants or at intervals along the stems of creeping moss plants. A sperm cell swims through the water film to a nearby archegonium and swims down the long neck tube and fertilizes the egg. At this point, a new plant is formed. It is diploid and is called the sporophyte. It never separates from the moss plant that made the archegonium and egg. It grows into an oval capsule on a stalk. The diploid cells in the capsule undergo meiosis and produce 4 haploid, non-identical spores. When the weather is right,

(Bryophytes, continued from Page 3)

the spores are released and, if they settle in an appropriate environment, germinate and produce new moss plants.

This form of sexual reproduction is typical of bryophytes and, in reduced forms, all plants. It is called Alternation of Generations. The haploid generation (the gametophyte) is dominant (self-supporting) in the Bryophytes. The diploid generation (the sporophyte) is dependent on the haploid generation for its food and water. In the seed plants, we can't even see the haploid part of

the life cycle because the sporophyte generation is the dominant generation and the haploid, gametophyte generation is tiny and protected from drying out in the ovules and pollen grains of the flowering plants and the cones of conifers.

Sources:

Conard, Henry S. How to Know the Mosses and Liverworts. WM. C. Brown Company Publishers. Dubuque, Iowa; 1956. Kimmerer, Robin Wall. Gathering Moss. Oregon State University Press. Corvallis, Oregon; 2003. Raven PH, Evert RF, and Eichhorn SE. Biology of Plants, 5th ed. Worth Publishers, Inc., New York; 1992.



San Mateo Thornmint Numbers Rebound!

by Christal Niederer, Creekside Science

The federally endangered San Mateo thornmint is found only at Edgewood, but now there are four colonies instead of just one. The single existing colony has been persisting with supplemental seeding and habitat management (mowing and dethatching), but a single population is vulnerable to chance events like extreme weather, as well as normal population fluctuations. To spread the risk, Creekside Science identified additional areas within Edgewood Natural Preserve (the Preserve) that have similar soils and vegetative associates. With volunteers from Friends of Edgewood and the Edgewood Weed Warriors, we installed 250 seeds in each of 80 1-meter square plots spread across four locations (including the original colony) throughout the Preserve in December 2015.

We are pleased to report that by May 2016, there were a total of 5,756 plants occupying 196 m², the highest number and area since this project began in 2008. Note that of all the sites seeded in December 2015, two of the new colonies had higher numbers than the original with the same seed input (and the one that did the worst was not

far behind the original site). This means our new sites have similar, if not better, habitat value for San Mateo thornmint. We believe establishing new colonies is key to preventing extinction of this species.

Seed increase efforts at the Creekside Grow Facility in 2016 yielded approximately 47,000 seeds. With this large bounty, we increased our seeding efforts in December 2016. We seeded all four colonies again, but this time we seeded with more plots (110 total) and 400 seeds per plot. When we seeded, we were able to see new germinants already showing up in the previous year's plots. The cycle is continuing!

(continued on Page 5)



Photo: Edgewood volunteers collaborate with Creekside Science to install and seed new San Mateo thornmint plots. Left to right: Deanna Schiel, Trevlyn Williams, Dave Hershey, Sandy Bernhard, Alf Fengler, Paul Heiple, and Marissa Kent (Creekside).

Wildflower Walks!

Free guided tours at Edgewood Park

Take a moderate three-mile walk to explore the stunning spring wildflowers with docents from Friends of Edgewood. All ages welcome!



2017 schedule

Saturdays & Sundays March 4 – June 4, 10am-1pm

Meet at the Bill and Jean Lane Education Center near the park entrance off Edgewood Road

Saturdays in April, 10am-1pm

Meet at the Clarkia Trailhead parking area on Cañada Road

- Bring water, a hat, sturdy shoes, sunscreen, and a snack if you wish.
- * Restrooms and water available only at the Education Center.
- * Arrive early for parking.

rances Freyburg Blackburn

- For groups of 10 or more, make a reservation with Events@FriendsOfEdgewood.org.
- Take the free park shuttle!
 SMCoParks.org/parkshuttle



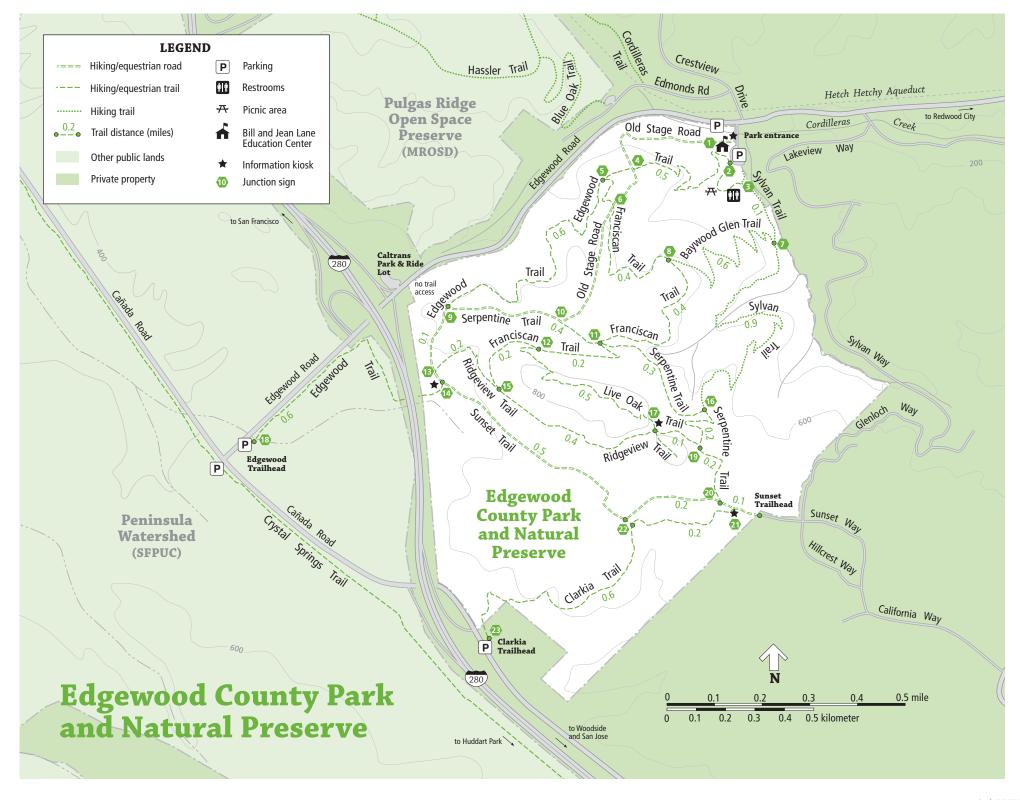


Edgewood County Park and Natural Preserve

is a San Mateo County Park. The Wildflower Walks are organized by volunteers with Friends of Edgewood Natural Preserve, a nonprofit organization.

Find out more at **FriendsOfEdgewood.org** or call 1-866-GoEdgewood (1-866-463-3439).





Visitor Celebrates 20 Annual Hikes With Our Edgewood Docents!

by Linda Leong

How many of you can say with certainty that you have hiked with an Edgewood Docent at least once each year for the last two decades? Frequent Edgewood guest, Pat Blumenthal, can because she kept notes on all her visits since March 1997 on her copy of the Common Native Wildflowers of Edgewood color brochure! We learned about Pat's remarkable feat when, last year, she hiked with docent Laurie Alexander.

A psychologist from Palo Alto, Pat was a frequent visitor to Wunderlich when she first learned about Edgewood's free wildflower walks. She isn't certain but guesses that she probably read about the Edgewood hikes in the Palo Alto Weekly (www.PaloAltoOnline.com) or perhaps in a special newspaper ad.

Pat has observed with interest the many changes and improvements at Edgewood Park over the years, including the production of a color Wildflower Brochure (1997) and opening of the Bill and Jean Lane Education Center (2011). She usually goes on docent-led hikes in March, April, and May each year, so she can see the flowers that bloom earlier or later. In recent years, she has consulted the Bloomin' Board to learn more about our various lilies and when each one blooms.

What does Pat like most about Edgewood Park and Natural Preserve? Docent-led hikes, no reservations required, and no fee top her list.

What tips does Pat have to share with other visitors? She uses her sense of smell more than other visitors and even more than some docents. But she needs to touch the leaves of the plants, gently, in order to get their distinctive smell on her fingers. Pat has



Pineapple weed © 2006 Kathy Korbholz

learned to recognize the smell of sages, yerba santa, yerba buena, chamise, "something whose leaves look and smell like carrots" (can't remember the name), and her very favorite, pineapple weed. She also likes to touch the leaves of sticky monkey flower and bedstraw which are very distinct.

Whose hike will Pat join in 2017? It just might be yours! ✓

(Thornmint, continued from Page 4)

We will continue monitoring and doing some habitat management this spring. While the rain is helpful to thornmint, it is more likely to favor nonnative annual grass, the main competitor of thornmint. We'll have to work to make sure the thornmint doesn't get grassed over. Another threat is dodder, a native parasitic plant. We have noted this pest attached to thornmint and are working to hand-remove it. We also plan to do some experimental treatments to see what happens when both dodder and its main host, the common hayfield tar plant, are removed on a small scale.

Additional good news for the species is that the San Francisco Public Utilities Commission has again expressed interest in introducing this species in the Crystal Springs Watershed. We see this as an important step in increasing resilience of San Mateo thornmint.

We remain grateful to Friends of Edgewood and the San Mateo County Parks Foundation for continued funding of this project. We also appreciate our partners at San Mateo County Parks for mowing and other support; our volunteers and staff from the UC Berkeley Botanical Garden and California Native Plant Society; as well as California Department of Fish and Wildlife Service. •

Photo Gallery

Right: Julia's on the move. Kathy Korbholz, Julia Bott, and Bill Korbholz enjoy a hike during a break in the rains. Julia says: "Turret spiders don't move far from the mom's nest. I can't say the same for most of us. After 30 great years, my husband and I are leaving San Mateo and moving to Brookings, Oregon. It's sad to leave, and I'll miss so many. But new adventures await us! We already started a list. "Kalmiopsis," was the first thing Ken Himes said when he heard. He added that the nearby Kalmiopsis Wilderness is the only wilderness named after a flower. Seems like a good omen to me. Thanks to all of you for the wonderful memories and for taking care of Edgewood – protecting and nurturing the land and spending time helping others enjoy the preserve. If you're on the southern Oregon coast, look me up, and we can go hunting for the Kalmiopsis."





Left: What a small world it is! It was a dark and stormy day in early January, and only two visitors braved the inclement weather to check out the Bill and Jean Lane Education Center that afternoon. The woman said that she was affiliated with the Historic Union Cemetery where Henry C. Finkler was laid to rest. She was quite happy to see and read the Ed Center's write-up on Mr. Finkler, and she has since posted a copy on the Historic Union Cemetery website.

http://www.historicunioncemetery.com/archives/markers/ FinklerHenryC_20110910_EMC.jpg



Above: A random act of kindness. Frequent park visitor and long-time Edgewood supporter, Barbara Rosenaur (left), buys a young environmental student a new Edgewood t-shirt. The student proudly shows off her new shirt.



Above: New Edgewood Player wanted! Beloved skunk puppet, Oreo, seeks a new human to continue his illustrious skit career. Auditions to be scheduled soon. Interested humans should inquire at WeWillMissYouJulia@EnjoyOregon.Fun.

Webmaster Honored By Parks Department by Bill Korbholz



Pam accepts Special Recognition Award. © 2016 Kathy Korbholz

I'm pleased to report that Pam Gage received special recognition at the San Mateo County Parks Department year-end volunteer recognition event in December 2016. Pam has been the Friends of Edgewood webmaster since 2012. She originally signed on to help us develop WordPress pages, as we had recently converted our web presence to use a simpler and more accessible mechanism for managing content. At the time, we all, including Pam, felt that this was a fairly simple task. Turns out, it was anything but!

Since that rather humble beginning, Pam's responsibilities have grown immeasurably. She now is proactive regarding our web design, constantly updating content to keep it current and attractive. It is her selection and careful cropping that make the rotating banner pictures so inviting. She also performs technical maintenance tasks like upgrading WordPress and related software.

Since Pam joined the team, we have switched web presence providers twice for performance and stability reasons. Each of these moves required careful planning and dozens of hours of Pam's time. Throughout the conversion, despite many setbacks, Pam stuck to it, ensuring a successful result. She has a great attitude and is very conscientious. She's dedicated to keeping Friends of Edgewood websites attractive, appealing, and in good working order. She's also a delight to work with.

Since she was unable to attend the Parks' volunteer recognition event, the photograph depicts Pam receiving her award at the Board of Directors' holiday party. ♥

Yes, I'd like to become a Friend of Edgewood!

Here's my membership donation to support preservation, education, and restoration:

Join or renew online at FriendsofEdgewood.org		I'd like to get the newsletter by email mail.
\$25 Friend	\$50 Advocate	Please keep my thank-you gifts.
\$100 Steward *	Other: \$	Please keep my donation anonymous.
Donors of \$50 or more receive a set of six Edgewood greeting cards; donors of \$100 or more also receive a one-year subscription to Bay Nature Magazine.		Make checks payable to Friends of Edgewood, and mail to:
Name		PO Box 3422
Address		Redwood City, CA 94064-3422
		For volunteer opportunities, visit
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Mission Statement of The Friends of Edgewood — To protect and celebrate Edgewood as a unique treasure by promoting exemplary stewardship, and by reaching out with informative public programs. www.FriendsOfEdgewood.org

PRESERVE • EDUCATE • RESTORE

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Bill and Jean Lane Education Center -Spring Hours and By Appointment*

Wed	9:30 am to
	12:30 pm
Sat	9:30 am to
	4 pm
Sun	9:30 am to
	4 pm

^{*}Subject to volunteer staffing.

2017 Board of Directors

Laurie Alexander
Sandy Bernhard
Kathy Goforth
Alice Kaufman
Bill Korbholz
Kathy Korbholz
Linda Leong
John Morse
Todd Reimche
Mickey Salgo
Howie Smith



UPCOMING EVENTS

Adopt-A-Highway

Next Sessions: 3/5, 4/8, 5/7, 6/3
To volunteer or get more information, contact
Dave Hershey at adoptahighwaycoordinator@FriendsOfEdgewood.org

Docent-Led Wildflower Walks

Sat/Sun beginning 3/4/17; 10 AM @ BJLEC (Saturdays in April, walks also start from Clarkia Trailhead)

Second Sunday Bird Walks

(heavy rain cancels)
4/9 and 5/14 (Mother's Day) - 8 AM @ BJLEC
3/12 and 6/11 - 8 AM @ Clarkia Trailhead

For more event info, see

www.FriendsOfEdgewood.org/events

The Edgewood Explorer is published quarterly by the Friends of Edgewood Natural Preserve, a nonprofit organization dedicated to preserving and restoring Edgewood and to educating the public about its treasures. The newsletter is edited by Linda Leong and is supported by contributions from many Friends. For more information about the Friends of Edgewood, visit our website at www.FriendsOfEdgewood.org, mail us at PO Box 3422, Redwood City, CA 94064-3422, leave a message or fax us toll-free at (1-866) GO-EDGEWOOD (1-866-463-3439), or email us at info@FriendsOfEdgewood.org.