WILDFLOWERS ABOUND AT EDGEWOOD

By Laverne Rabinowitz

April and May are perhaps the most splendid months at Edgewood Park and Natural Preserve for wildflowers. Visitors are attracted from miles around to enjoy the variety and beauty of the flowers in bloom. Here is a partial list of some you might see in the later spring. Happy walking!

Continuing in April:

- Farewell-to-Spring
- Yellow Mariposa Lily
- Four-Spotted Clarkia (Godetia)
- Western Larkspur
- Cream Sac
- Ithuriel's Spear
- Yarrow
- Indian Pink
- Blow-Wives
- White Globe Lily or Fairy Lantern
- Crimson Columbine
- Innocence/Chinese Houses
- Bee Plant
- Poppy
- Brodiaea
- Linanthus
- Lupines
- Tidy Tips
- Goldfields
- Mule’s Ears
- Owl’s Clover
- Blue-Eyed Grass
- Cream Cups

And in May:

- Coronary and Harvest Brodiaea
- White Mariposa Lily
- Large Godetia
- Nievitas
- Soap Plant
- Pennyroyal
- Chaparral Mallow
- Yerba Buena
- Leopard Lily
- Coyote Mint
- Yerba Santa
- Sticky Monkeyflower

EXPLORE THE EDGE -- RUN/WALK IN EDGEWOOD NATURAL PRESERVE

The second annual Explore the Edge run/walk will be held on Saturday, May 21, at 8:30 a.m. Sponsored by the Emerald Lake Homeowners Association, this event features an 8K (5 mile) run and 4K (2.5 mile) walk through upper Edgewood, along the Serpentine and Ridgeview trails. Participants will receive a commemorative T-Shirt and a raffle ticket for prizes donated by local merchants. Support this event--all proceeds will be donated to the Friends of Edgewood Natural Preserve. See the enclosed entry form for details.

NEEDED MORE THAN EVER: BOARD OF DIRECTORS

The campaign to make Edgewood a preserve was carried forward by a group of eight to fifteen people who met every week or two for a couple of years until the task was done.

Now that Edgewood is a preserve, we need another body with the authority to make decisions. This group would be elected by ballot and would need to meet at least once a year to elect officers. Besides that, it would meet only as required by the circumstances. Votes could probably be rounded up by phone. So, you see, being on the board doesn’t have to involve a lot of meetings.
Currently, Carolyn Curtis is holding things together, but she has an obligation to be president of the local chapter of a large local organization starting January 1995, and thus won't be able to do justice to being the point person for Edgewood. Mostly, though, questions come up that should be decided by a group of people who speak for Edgewood, not just one person.

Please help your Preserve. It needn't take much time, it needn't be forever, your fellow board members are dedicated, convivial people (it's fun), and it's rewarding and satisfying.

Positions:

- President
- Vice President
- Corresponding and Recording Secretary
- Treasurer
- Directors at Large
- Escaped Exotics Committee
- Membership Committee
- Revegetation Committee
- Newsletter Committee
- County Parks and Recreation Division Liaison
- Publicity Manager
- Exhibits Committee

We owe a debt of gratitude to Bob Young, Elly Hess, Jessie Schilling, Susan Sommers, Bill Korbholz, Carolyn Curtis, Laverne Rabinowitz, and Angela Sutton for filling some of these positions on an interim basis.

Please call Carolyn Curtis (326-2726) if you're interested in any of these positions or have ideas for additional ones.

**REVEGETATION UPDATE**

**by Mary McMahon**

Saturday, February 26, was a misty rainy day but the weather was no deterrent to Susan Sommers, Bill Edwards, Chris Romano and Susan Thrasher. On that morning, these dedicated volunteers met at Edgewood and actually began the revegetation project. The erosion track on the south-facing slope of the central ridge visible from the Sunset entrance was their area of focus. This area is well known to any one familiar with the Preserve as human damage has totally denuded the slope.

The work party began efforts on three sub-projects. First, they surveyed the area, placing stakes every 50 feet to create an easily readable grid for the planting and monitoring process. Secondly, they reviewed the effectiveness of the rock filters previously placed last October in the major erosion track. They were pleased to find that these rock filters appear to be working, holding silt caused by recent rains. These rock barriers duplicate nature's mechanisms and will help insure that the new plantings will not be washed away.

Finally, the team planted 85 Stipa bunch grass seedlings! These seedlings, locally gathered and grown, should have a good chance of thriving. A check four weeks later indicated that most of the plants were doing well. While the lack of recent rain

*Continued on page 5*
THE LAND OF EDGEWOOD: WHAT’S IT ALL ABOUT?

By Bill Korbholz

Typical of much of the land in this geologically active corridor along the San Andreas Fault, Edgewood Natural Preserve consists of a hodgepodge of rock and soil types. Within the Preserve are found rocks from volcanic lava, sand from beneath the sea, and a distinguished form of rock that, because of its slippery nature, oozed up from deep within earthquake fault traces.

The central ridge, the Preserve’s most striking topographic feature, consists primarily of Franciscan greenstone. Red in color due to oxidation, this type of rock has volcanic origins and consists chiefly of basalt. If you follow the Ridgeview Loop, you will be trekking through deep red soil which has eroded from Franciscan greenstone.

Surrounding the central ridge’s greenstone, you’ll find a lot of rock which is greenish-gray to bluish-green in color, and often very slick. This of course is serpentine (serpentine rock) and Edgewood has the largest exposed formation of serpentine rock on the peninsula. Because this type of rock is relatively soft and slippery, it tends to squeeze up through rock fissures caused by earthquake faults, and that is the reason it is so prominent in this area. You can enjoy the beauty of serpentine, our state rock, along the Serpentine Loop, which circumnavigates the central ridge. For an in-depth description of serpentine rock, see Carolyn Curtis’ article “What is Serpentine?” beginning on the next page of this newsletter.

In the northeast quarter of the Preserve you’ll find concentrations of Franciscan and Butano sandstone. This soft rock consists of graywacke sandstone with imbedded mudstone, siltstone, and shale. The Sylvan Trail, perhaps the most beautiful trail in the Preserve, takes you through these sandstone concentrations and past the Preserve’s only year-round running spring.

Also in the Preserve you will find alluvial deposits that have drained down the western slope of the central ridge, and Franciscan sheared rock along the northwestern boundary.
ARTICLES NEEDED

Would you be interested in writing an article on your favorite plants, animals, or sites in the Preserve? Please send articles, or suggestions for articles, to the newsletter committee at the return address on the back of this newsletter. For details, please contact Bill Korbholz. Deadline for submitting articles for the July issue: July 1.

WHAT IS SERPENTINE?

By Carolyn Curtis

Serpentine is not a rock, but a group of minerals, which can include chrysotile asbestos. Serpinitite, the term that probably makes most sense to use when referring to the rocks and soils at Edgewood, is a type of metamorphosed sedimentary rock.

The type of metamorphism known as serpinitization can happen in many ways. Many minerals can be transformed into serpinitite, as, for example, when olivine and orthopyroxene combine, which happens mainly on land. For other serpinitites, the parent mineral, such as peridotite, a tan, blocky mineral, can crystallize when it is brought up from the sea floor through the crust of an opposing tectonic plate.

Chemically, serpinites are at the heavy end of the metal spectrum, containing relatively large amounts of magnesium and/or iron. Because of these elements, serpinitite is referred to as ultramafic (Mg + Fe). Serpinitite and peridotite can have a rusty-looking crust because of the oxidation of the iron (magnetite) they contain; California has many a "Red Hill" and "Red Mountain" as a result.

Origin and Distribution

The parent rock to serpinitite started out on the sea floor, in the lateral grooves between ridges in the deep trench off the margin of continents. As the sea floor moves up and encounters another plate, the leading edge goes down under the other plate, which is known as subduction. The lighter components of the sea floor are scraped up on top of the other plate; on the West Coast, the result became the Franciscan formation. When the subduction ceases, sedimentary rock forms in the normal way, and lots of ultramafic rock comes to the surface.

Most serpinitite in California’s inner coastal ranges, such as the serpinitite in the Oakland-Berkeley hills, results from subduction. The layers of younger sedimentary rock that formerly covered this serpinitite have weathered away, exposing the serpinitite. The coast ranges are a big compression zone; the Sierra is moving west, pressing the Great Valley rocks. In this situation of moving layers, the slippery and easily mobilized serpinitite pops up along fault zones. In addition, there is tremendous hydrostatic pressure, so the serpinitite also rises along thrust lines as well.

Serpinitite and Vegetation

These serpinitite chemical characteristics inhibit plant growth:

- relative lack of the elements plants need to grow, such as calcium, nitrogen, phosphorus, potassium, and trace elements such as molybdenum
- concentrations of iron, magnesium, and other heavy metals, such as nickel, chromium, and cobalt, that are toxic to most plants
- lack of water; lack up buildup of organic matter

The crystal structure of serpentine won't allow calcium, so this element comes out in the ground water. Serpentine seeps are calcareous water, resulting in travertine aprons where native orchids sometimes grow. The cobbles in stream beds near serpinitite areas can be cemented with this calcium.

Plants have adapted to this lack of calcium in serpinitite soil in various ways: some require little calcium, others accumulate it. Calcium is highly important for plant growth; plants growing in serpinitite areas tend not to be tall.
Likewise, some plants adapt to the concentrations of iron and magnesium by accumulating it. The magnesium in the serpentinite is not buffered because of the lack of calcium there, so it is toxic to most plants.

Studies have shown that toxic metals aren't the problem, but rather the low nutrient levels and dryness of serpentinite areas. Plant adaptations to low nutrient levels and to aridity look the same.

Despite the superficial aridity of serpentinite areas, water comes out all over serpentinite areas, drained from adjacent places; however, because serpentinite is so fractured and sheared, the water's availability is problematic. Most serpentinite areas can have persistent streams and springs, unlike the surrounding sandstone, which dries up.

An update to this revegetation project will appear in the next newsletter. To get involved, please contact Susan Sommers.

LETTERS TO THE EDITOR

March 2, 1994

Congratulations! I just received my copy of the Edgewood Explorer. What a wonderful publication!

It is exciting to know that the Friends of Edgewood Natural preserve are interested in doing public information regarding Edgewood Park. Hopefully, our partnership will continue to make Edgewood Park Natural Preserve a wonderful place to visit.

The newsletter is great!

Respectfully,

Patrick H. Sanchez, Director
Parks and Recreation Division
Environmental Services Agency
County of San Mateo

UPCOMING EVENTS

☑ Weekends through June 12. Wildflower Walks at Edgewood. Sponsored by the Santa Clara Valley Chapter of the California Native Plant Society, docent-led walks start at 10 a.m. and last about 3 hours. Call John Allen or Jan Simpson for details.

☑ April 23, 24. Hikes at Edgewood. Ron Weaver will lead hikes of 2 to 3 hours, starting at 10 a.m. Meet at the Edgewood Road Park-and-Ride and bring water and a windbreaker. Ron Weaver.


☑ June 4. Trail Days at Edgewood (to coincide with National Trail Day). Ron Weaver will lead a group to install additional habitat barriers near the Clarkia trail. 9 a.m. - 1 p.m. Meet at the Sunset/Hillcrest entrance. Bring a sturdy pair of gloves and water. Ron Weaver.
The Edgewood Explorer is published four times yearly by the Friends of Edgewood Natural Preserve, a not-for-profit organization dedicated to keeping Edgewood Park and Natural Preserve a place where all can enjoy the natural beauty and habitat. The newsletter is produced by the interim Publishing Committee: Carolyn Curtis, Bill Korbholz, Laverne Rabinowitz, and Angela Sutton. To submit articles or suggestions, contact Bill Korbholz.

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FIRST CLASS