Friends of Edgewood Natural Preserve

Edgewood Explorer

December 1995 Volume 2 Number 4

BEST FRIEND AWARDS HIGHLIGHT ANNUAL MEETING AND POTLUCK

The second annual meeting and potluck dinner took place at the Old Stage Day Camp on October 15. Supervisor Ruben Barrales was present, as was Matt Greenberg from Supervisor Ted Lempert's office.

After enjoying the delicacies contributed by the attendees, President John Allen invited selected committee chairmen to highlight 1995 accomplishments.

Nancy Mangini reported on the formation and operation of the Trail Patrol and Bill Korbholz reported on the progress of the Master Plan committee.

Ken Himes

Ken Himes with Star Thistle

Susan Sommers then spoke about the success of the revegetation project, followed by Elly Hess' description of the weekly weeding activities.

Jan Simpson rounded out the reports by describing the new docent training program.

A new tradition was started this year of granting Best Friend awards to those individuals who contribute in significant ways to the protection, preservation, restoration, and enjoyment of the park. Two Best Friend awards were granted this year: one to Nathan Graham, who constructed a habitat railing above the revegetation area as his Eagle Scout project, and the other to Elly Hess, for leading the weeding project. Congratulations to Nathan and Elly!

EDGEWOOD MASTER PLAN COMMITTEE NEARLY FINISHED WITH ITS WORK

The Master Plan committee is now targeting January for the delivery of its draft master plan to Director Patrick Sanchez at the county's Parks and Recreation Department. The plan prioritizes protection, preservation, and restoration of the park among its recommended management principles.

Upon receipt of the draft, Director Sanchez will follow through on public and agency review, revision, and ultimately adoption and production of the new master plan.

The committee consists of Bob Emert from Parks and Recreation and six Friends of Edgewood: Carolyn Curtis, Bob Hartzell, Bill and Kathy Korbholz, Susan Sommers, and Nita Spangler.

INSIDE THE EXPLORER

PROGRAM FOR THE SIGHT-IMPAIRED

By Bob Young

The Nature Conservancy recently reported that some open space groups have developed programs for sight-impaired persons. This started me thinking that someone in our Friends of Edgewood membership might be interested in creating a similar program for Edgewood Natural Preserve.

When you think of the possibilities, such as the following, you might say, "Yes, I'd like to do that."

- the smell of Coyote Mint, Yerba Buena, or Ceanothus
- the feel of a Sticky Monkey flower; the shape of a Mule's Ear plant; the slickness of a serpentine rock; the bark of madrone, valley oak, or coast live oak; or the shapes of flowers such as larkspur or poppies

Undoubtedly, local Centers for the Blind would help develop a meaningful program. They would have to be contacted.

If you're interested in becoming involved in such a program, please call me at (415) 592-3673.

REPORT FROM CALIFORNIA EXOTIC PEST PLANT COUNCIL SYMPOSIUM

By Elly Hess

[The Friends sponsored Elly Hess and Susan Sommers to attend this three-day symposium last October. -ed]

This symposium was held at the beautiful Asilomar Conference Center in Pacific Grove. Because Edgewood is a very sensitive habitat, some of the control strategies presented to us cannot be used there. We were very interested in a Star Thistle control using spring and summer cutting. This control was also used with winter burning which we probably would not be able to do. The plots that we could use this on are the pure stands of Star Thistle off the Serpentine Loop on the north side of the preserve. If we could get rid of the Star Thistle we could revegetate with natives.

Other control methods talked about at the conference were the use of herbicides, controlled burning, and biological control.

We had a moonlight stroll (no visible moon) with the Asilomar Ranger on Saturday night to hear about his very successful revegetation of the dunes. He talked about the whole process. First, getting the local citizens used to the idea he was going to rip out all of the non-native ice plant, and in some areas bulldozing parts of the dunes. This he said was the hardest part of the project. He grew all of the plants used for revegetation, then used school children and community volunteers for the replanting. It is an impressive success story.

It was an intensive weed control weekend with many success stories and a lot of enthusiastic people doing the presentations. The enthusiasm of the people could not help but rub off on us. Thank you for sending me.

Over the last few months, there has been a noticeable increase in vandalism inflicted on the habitat railings near the Sunset entrance, especially at the bottom and top of the hill leading up to the central ridge. The County is tracking these occurrences and will be defining and implementing measures to prevent further incidents.

You can help defeat these senseless and malicious acts, which threaten the beauty and health of the Preserve. Please report any and all observations of vandalism immediately to Ranger Ron Weaver.

EFFECTS OF EROSION AT EDGEWOOD

By Kathy Korbholz

Little drops of water
Little grains of sand
Run away together
And destroy the land[1]

The seemingly minimal forces exerted by drops of water and grains of sand, when combined with the element of time, can level a mountain. Erosion is the removal of the surface layer of the earth's crust by the natural agents of wind, water and ice.

Wind causes erosion in two ways. Abrasion, or the scouring action of sand/soil particles against the softer areas of rocks, plants and man-made structures, is the first component. This action is usually limited to a height of 18 inches above the ground but can extend to three feet. The second component, deflation (from the Latin to blow away), is the erosive action of the wind carrying off unconsolidated material. During wet periods, water loosens material and leaves it lying on the surface. During dry periods, winds carry off these loosened products of weathering. Deflation moves only sand and dust, leaving behind larger particles the size of pebbles or cobbles. With enough time and wind, only stones remain to form a surface cover.

Water in stream beds or rivulets originates as runoff from neighboring slopes. Runoff flows as a sheet of water or in closely spaced shallow channels called rills. This slope wash (or sheet erosion) is sometimes powerful enough to overcome the soil's resistance and manages to carry a great deal of surface material down slope. Disturbed or denuded soils are less resistant to slope wash.

Moving water can gouge its own water channel, transport debris, and deposit sediments (including exotic plant seeds) at various points along its course. The nature and extent of water-caused erosion depends on the kinetic energy of the stream, which is a function of the amount of water and the gradient of the channel. The faster the flow, the greater the resultant erosion. The diameter of particles which moving water can carry actually varies as the square of the velocity of the stream.

Human trampling promotes erosion by loosening soil materials and destroying plant cover. The trampling damage caused by humans is about eight times that caused by deer. Deer native to San Mateo County have weight ranges similar to humans: 94 lbs. for small does to 200 lbs. for large bucks. When deer walk, their weight is distributed over their four feet and their back feet land on or very near their front tracks. Each deer print, even for a large buck, covers less than six square inches, while a single human boot track can exceed fifty square inches!

Each human boot step loosens soil, and breaks or destroys plant cover under foot. The unintentional erosive effects of human trampling are seen at shortcuts across switchbacks. In serpentine areas where the soil depth is thin, and plant cover naturally sparse, trampling-caused erosion of precious soil nutrients is especially devastating.

At Edgewood Park further evidence of human-caused erosion exists on the two hillsides facing the Serpentine Trail. There the trampling from off-road vehicles caused plants and soil to be displaced and to be more susceptible to the erosive effects of wind and water. These off-road tracks are still barren after more than 20 years!

The presence of plant material, both living, withering, and in mulch form, mitigates the effects of water and wind erosion. First the tree canopy "softens" the pelting force of rain during a storm. All above-ground plant material impedes the flow (velocity) of both wind and water, thereby reducing their carrying capacity to remove soil particles. Above-ground plant residue increases surface roughness, thereby slowing surface runoff and filtering out sediment as rain water percolates. Finally, the root systems of plants physically bind soil particles. On slopes, tap roots penetrate through the soil mantle and help prevent erosion by anchoring to firmer strata below.

Erosion is a part of the natural ecology of Edgewood Park and Preserve. New gullies, washed

out culverts, and fresh bare spots with little or no plant cover are all evident after last year's heavier-than-normal rainfall. Because erosion can never be reversed, those who care about the Preserve's future must help visitors understand the importance of staying on sanctioned trails and leaving plant material undisturbed. We must all work together to protect our park from excessive erosion.

(1) Robert E. Horton, "Sheet Erosion-Present and Past," Trans. Am. Geophys. Union, XXII (1941), 300

BRENDA BUTNER: A FOUNDER OF THE EDGEWOOD DOCENT PROGRAM

By Carolyn Curtis

After a valiant fight, Brenda Butner succumbed to cancer in October of this year. For members of the Friends of Edgewood and for visitors to Edgewood, she has special significance as one of the people who got the Edgewood docent program going.

It was typical of Brenda that she planted the idea of the docent program and made it happen, without looking for any particular glory. In the years of her involvement, the docent program grew from a few hikes in spring to a program of regular hikes every weekend from mid-March to mid-June, with training sessions and a roster of a couple dozen docents. Of course, Brenda was a docent herself—one of the best.

The Edgewood docent program is carried out under the auspices of the local chapter (Santa Clara Valley) of the California Native Plant Society, of which Brenda was president in 1989 and 1990. Like many of the past presidents of CNPS, Brenda continued contributing, for example, serving as wildflower show coordinator and field trip coordinator (one of the most active in this job that the chapter ever had). She continued to be active in the chapter right up until she became too ill to go out.

Edgewood has always been close to the Santa Clara Valley chapter's heart because of its preponderance of rare plants and special habitats—particularly valuable to people interested in botany who live in a built-up urban area. Susan Sommers, when she lived across from Edgewood, found some of its rare species. Toni Corelli, who grew up near Edgewood, became a professional botanist (and president of the local CNPS chapter in the early 80s) because of her appreciation of its treasures. It's a special place to many CNPS members, some of whom don't have the good fortune to live nearby. Some of these members are Edgewood docents or weeding volunteers.

Brenda's passion for native plants led her to return to college for botany courses. Working part-time at Yerba Buena native plant nursery for many years, she developed considerable skill at propagating native plants, some of which require special techniques. Brenda shared this knowledge generously with

CNPS BACKGROUNDER

Founded in 1965 in Berkeley, CNPS now has 31 chapters and about 8400 members atatewide. CNPS botanists, who testify and advise on rare plants and habitats, have earned respect among government agencies and other conservation groups for their expertise and objectivity. Membership is open to everybody. In particular, a large chapter such as the local one, with its varied activities, provides several good ways to learn more about native plants.

CNPS puts its motto, "Dedicated to the preservation of California native flora," into action by keeping an eye out for threats to the state's vanishing native plant species. In 1983, this action took the form of a lawsuit by the state CNPS organization against the county of San Mateo over its defective draft EIR, which was settled out of court. When things heated up again in 1987, CNPS led in the efforts to keep Edgewood intact, joining with a few other conservation groups. In the final campaign starting in 1991, CNPS led the coalition that eventually comprised 43 organizations and 12 businesses. The local chapter made one of the first significant monetary contributions, enabling the effort to get off the ground with fliers and other information.

others, especially members of the chapter's Gardening with Natives group, which she helped found. This group grows most of the plants for the chapter's two annual native plant sales and now has its own nursery facility.

For those of you who weren't lucky enough to know and work with Brenda, I've tried to sketch a picture of a resourceful, dedicated, and imaginative person. I wish I could convey her warmth, wonderful humor, and especially her generosity of spirit—the ease and matter-of-factness with which she simply did what needed to be done and never sought any praise for it.

Brenda's leadership and example are a reason why the local CNPS chapter does so much so harmoniously. Her love of native plants lives on in the training that the Edgewood docents get and in the joy and knowledge these people share with Edgewood's visitors every spring. It also lives on, actually, in the gardens of people who grow native plants that the CNPS chapter propagates.

NEW FOE BOARD MEMBERS

At the Friends of Edgewood annual meeting on October 15, the following officers were elected for 1-year terms for calendar 1996:

- Bill Korbholz, President
- Jan Simpson, Vice-President
- Laverne Rabinowitz, Secretary
- Bob Young, Treasurer

John Allen remains on the board as outgoing president.. The remaining board members for 1996 consist of the following committee chairs and members at large:

- Elly Hess, Escaped Exotics Control
- Kathy Korbholz, Newsletter
- Nancy Mangini, Trail Patrol
- Jan Simpson, Docent Program
- Susan Sommers, Chris Romano, Revegetation
- Carolyn Curtis, Jessie Schilling, Membership
- Ron Weaver, Parks & Recreation
- Sandy Cooperman, Publicity
- Dorothy Young, Exhibits
- Frank Figoni, member at large
- <vacant>, Community Outreach

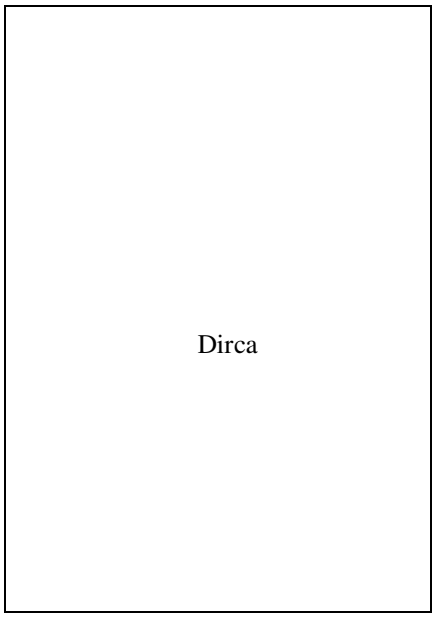
WESTERN LEATHERWOOD BLOOMING AT EDGEWOOD

By Stephen Buckout

[The Dirca occidentalis*, which can be found along the lower Sylvan Trail, will be coming into bloom in the next couple of months. -Ed]*

Dirca occidentalis is California's only member of the family Thymelaeaceae, the Mezereum family. The family has 40 genera and 400-500 species, mostly tropical, but is well represented in Asia and Europe. The genus *Daphne* belongs to the Thymelaeaceae family and the familiar *Daphne odora* is from China and Japan. *Daphne mezereum*, which is from Europe, was one of the first species described.

The genus *Dirca* has two species, both native to North America. *Dirca palustris*, a wide-ranging species, is found from Ontario to Florida and west to Missouri. *Dirca occidentalis* is endemic to the San Francisco Bay region--Sonoma, Marin, Contra Costa, Alameda, San Mateo and Santa Clara counties. The type locality is Oakland, California, more specifically, the Oakland Hills, where it was collected by Bigelow and described by Asa Gray.



Dirca occidentalis

The name *Dirca* is Greek and is a name of a fountain in Thebes, the plants being associated with moist places. The root of the name of the eastern

species, palu-, means a stake, marsh, or swamp. This eastern leatherwood evidently favors wetter ground than our western species.

Dirca is a winter deciduous and has very leathery bark and pliable wood. The wood is pliable because of the s-shaped arrangement of the lignified tissue in the fibrovascular bundles.

The flowers occur in fascicles of 2 or 3 from lateral and terminal buds. The buds contain flowers and leaves. The scales of the buds are whitish and fall early. The flower lacks petals but the calyx is lemon yellow as well as the 8-10 stamens. The flower is about 1/3" high. The flowers are bisexual with a superior ovary which ripens into a fruit that is a drupe-like berry about 1/2" long. One may see the fruit from late June through July.

Dirca prefers moist wooded hillsides and is often found associated with California buckeye, coast live oak, and madrone.

1996 DOCENT TRAINING PROGRAM

By Jan Simpson

The Edgewood Park Docent Training sessions sponsored by the California Native Plant Society are well underway. Ten to fifteen people have been attending the classes.

Susan Sommers introduced Edgewood during the first session by showing her wonderful slides adding her heartfelt narration about the park. During the second session, Toni Corelli explained the geology of Edgewood Park and remarkable role serpentine plays. The associated field trip combined a vigorous walk with viewing and reviewing the geological surroundings.

The third session will be hosted by Ken Himes on January 11 at 7:30. Ken will share his knowledge about the plant communities at Edgewood. On the following Saturday at 10 am, Ken will lead a field trip starting from the Day Camp entrance.

If you are interested and want more information, call Jan Simpson.

POISON OAK

Adapted from an article by Mary Heinricher

One plant that you can anticipate encountering on almost any walk at Edgewood is poison oak, one of the most widespread plants in California. Growing west of the Sierra in a wide variety of soil and moisture conditions, it is found at elevations less than 1,200 meters. Its range extends north to British Columbia and south to Baja California.

Poison oak may be a low deciduous shrub, but if a means of support is available, it will grow as a vine. The deciduous leaves generally have three leaflets (sometimes more), and an exasperating feature of the plant is the large variability in size and shape of the leaflets, even on a single plant. The leaflets are reddish in color when they first emerge in the spring, and mature to a shiny green. They turn red or yellow in late summer, and fall with water stress. The leaf scars are triangular, a characteristic that can be a useful aid to identification in the winter. The berries are green in the growing season, turning a light tan or off-white at maturity.

Poison oak is just one member of a group of plants formerly included in the genus *Rhus*, but now classified as *Toxicodendron*. These plants are distributed world-wide, and include the mango, cashew tree, and Japanesse lacquer tree. In addition to our own western poison oak (*Toxicodendron diversiloba*), the United States has poison ivy, poison sumac, and eastern poison oak (*Toxicodendron quercus*).

Poison ivy and poison oak are the most common cause of contact dermatitis in North America. The active principle, which has been isolated in the resinous sap of these plants, is called "urushiol," from the Japanese word for sap. Resin canals containing the sap are found in almost all parts of the plant, including the leaves, stem, roots, flowers, and unripe berries. (The pollen, however, is safe.) The fresh sap is almost clear, but darkens and hardens to form a black lacquer-like substance upon exposure to air. Drops of sap, caused for example by insect damage, are the source of the black spots often seen on poison oak leaves.

The characteristic rash results when the skin is exposed to a portion of the plant that has been bruised or damaged in some way so that the resin can contact the skin. (An uninjured plant would thus be innocuous.) This is a true allergic reaction, and it is often said that over 50% of the U.S. population has been sensitized, although this is a very rough figure. Within 5-10 minutes of exposure, the urushiol interacts with proteins in the skin, leading to activation of immune cells. However, the onset of symptoms due to these immune cells is not immediate. Although symptoms usually begin within 2 days of exposure, delays of up to 10 days are not uncommon. The rash (which physicians still call "Rhus dermatitis") begins with itching and redness, and then proceeds to the characteristic miserable watery blisters. Itching is intense. Although poison oak usually goes away by itself within two weeks, serious cases can be treated with corticosteroids.

Some people appear to be truly tolerant to poison oak, but the mechanisms for this are not well understood. There are unsubstantiated reports that the Native American population in California was not sensitive to poison oak. Other authorities believe that poison oak leaves were chewed to elicit a form of oral desensitization, i.e. an acquired immunitiy. This practice was apparently adopted by early settlers, with some deaths resulting.

Exposed areas of skin should be washed as soon as possible, that is, within minutes. However, washing is worthwhile even hours later, so that any resin remaining on the skin surface is not spread to adjacent areas. In addition, urushiol remains potent indefinitely under dry conditions. (There is an anecdotal report that someone developed poison oak dermatitis from a specimen that had been stored in a herbarium for almost 100 years.) Thus sap remaining on packs or clothes, including boot laces, can be responsible for many recurrent cases. For the extremely sensitive, there are some barrier creams on the market. However, recent work suggests that those presently available are not very effective. Clearly, the most effective way to prevent poison oak dermatitis is to avoid contact with the plant.

✂ clip here ✂

MEMBERSHIP DUES REMINDER

New or continuing members of the Friends of Edgewood Natural Preserve are asked to pay membership dues annually to offset the expenses associated with preserving Edgewood. If you would like to join the Friends, continue your membership, or simply make a contribution, please clip and complete this section. Mail it to the return address on the back of this panel with your check payable to **Friends of Edgewood Natural Preserve**. With your membership or contribution, you will receive four more issues of the Edgewood Explorer.

_____
Name

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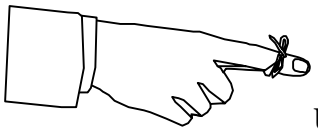
- ☐ $15 Basic membership
- ☐ $25 Family Membership
- ☐ $7 Student/Retired Membership
- ☐ $50 Supporting Membership (includes *The Flora of Edgewood Park*, and the 28-minute video *Saving Edgewood Park*)
- ☐ $100 Benefactor Membership (includes *The Flora of Edgewood Park*, the 28-minute video *Saving Edgewood Par*k, and a 16x20 poster-photo)
- ☐ In addition to my dues, I am enclosing a gift of _____.
- ☐ Please send _____ copies of the 28-minute video *Saving Edgewood Park*, at $15 each.
- ☐ Please send _____ copies of *The Flora of Edgewood Park* at $3 each.

Particular interests:

- ☐ Docent
- ☐ Newsletter
- ☐ Revegetation
- ☐ Legal
- ☐ Exotics control
- ☐ Trail patrol
- ☐ Public relations
- ☐ Trail/fence maintenance



UPCOMING EVENTS

❑ *Docent Training*. The final three training sessions will take place during the next three months. Each will be followed by a field trip on the following weekend.

- **Thursday, January 11**. Ken Himes will lead this session on plant communities.
- **Thursday, February 8**. Toni Corelli will provide greater depth on selected plants.
- **Thursday, March 7**. Bill Kirsher and Bob Buell will wrap up with a review and guidelines for leading walks.

Contact Jan Simpson for details.

Oak

Coast Live Oak, *Quercus agrifolia,* drawn by Celeste Kirsher

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 for all to enjoy the natural beauty and habitat. The newsletter is produced by Bill Korbholz with assistance from Laverne Rabinowitz and contributions from many Friends.

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