FRIENDS OF EDGEWOOD NATURAL PRESERVE

Edgewood Explorer

March 2003 Volume 10 Number 1

WILDFLOWER WALKS SET TO BEGIN

The carpets of wildflowers covering the serpentine grassland at Edgewood are renowned throughout California and beyond. Over 50 different species of blooming wildflowers can be seen on a single walk. Many of these flowers occur elsewhere in the Bay Area, but are not seen in such brilliant displays. You may also see some rare or unique plants and possibly the threatened Bay Checkerspot Butterfly!

The walks take place every Saturday and Sunday from March 15 through June 15.

All walks begin at 10:00 am, end at 1:00 pm, and start at one of the two parking areas, as noted below. The trails are gently sloping, the route is about 2 miles, and the walking pace is slow. We will not stop for lunch, but you are welcome to bring a snack and we encourage you to bring water, hat, and sunscreen, depending on the weather. No reservations are needed. Restrooms are available only at the Old Stage Day Camp entrance.

- **March** walks start at Old Stage Day Camp
- **April** and **May** walks start at I-280 / Edgewood Park & Ride
- **June** walks start at Old Stage Day Camp. `

EDGEWOOD MAPPING PROJECT

By Bill Korbholz

The Friends of Edgewood, in conjunction with Parks Staff and the Santa Clara Valley Chapter of CNPS, have launched a project to map the natural and physical resources of Edgewood. The stated objective of the project is "to produce a

(Continued on page 4)

SEQUOIA HIGH SCHOOL FIELD TRIP

By Carol Hankermeyer

Friends of Edgewood Schools Outreach sponsored a novel educational project for Sequoia High School. Two environmental science classes visited Edgewood on Nov. 12 and Nov. 19, 2002 to learn about Edgewood native plants, plant communities, invasive exotics, and endangered species. We explained to the students the relationship of aggressive introduced non-natives to the loss of native plant communities and endangered species. We

(Continued on page 5)

Carol (left) assisted by Ranger Katie Beltrano (second from right) and Sequoia High School students

INSIDE THE EXPLORER

INTRODUCTION TO PLANT FAMILIES

By Toni Corelli

This is the first of a series of articles about flowering plant families. —ed.

In the Flowering Plants of Edgewood Natural Preserve, referred to as "the Flora" for this series, the plants are arranged alphabetically by family. This is also the arrangement used in The Jepson Manual. Alphabetical ordering provides **no** information about relationships between families, or genera within families. Some floras place the plants in order of phylogenetic classification (based on their assumed evolutionary history and relationships). This is how the plants are arranged in the Flora of the Santa Cruz Mountains.

Some of the floral characteristics used to show relationships within families are: the number of sepals; number of petals; number of stamens; number of stigmas; whether the sepals and/or petals are fused; the position of the ovary (above or below the sepals); and other floral structure characteristics. Secondary characteristics are also used such as: leaf arrangement; flower arrangement; fruit structure including the number of seeds and chambers within the ovary.

All true plants are considered to be members of the Kingdom Plantae. The Flora excludes the "lower" true plants, which lack a vascular system (algae, mosses and liverworts).

The vascular plants can be broken into three main groups of one or more Divisions: 1) ferns and fern allies, which produce spores; 2) gymnosperms, woody plants that reproduce by seeds not enclosed in an ovary (seeds are borne in cones); and 3) flowering plants, which produce flowers and develop their seeds enclosed in an ovary.

Flowering plants make up about 95% of California's higher plants. Their two main classes are: dicots (Dicotyledones) and monocots (Monocotyledones).

All family names end with the letters "aceae" (meaning belonging to or having the form of), for example Asteraceae. The other part of the family name is the name of a genus within that family, such as the genus Aster in the family Asteraceae.

Let's look at scientific nomenclature[1] as it relates to a plant we might be familiar with:

Kingdom:	Plantae	plant
Division	Anthophyta	seeds enclosed within an ovary
Class	Dicotyledones	dicot
Subclass	Asteridae	ends in "idae"
Order	Asterales	ends in "ales"
Family	Asteraceae	ends in "aceae"
Genus	Aster	star (Greek derivative)
specific epithet	chilensis	from Chile
common name	common California aster	
Species	*Aster chilensis*	

The Jepson Manual lists 173 families occurring in California. The Flora has 72 families, or 42% of all of the families in California. In terms of number of species in California, the Sunflower Family has the most species. It is of no surprise then, that it is also the largest family at Edgewood. The plant family with the most species worldwide is the Orchidaceae (Orchid) Family.

All of this is not set in stone. Those of you who have been learning about plants have seen many plant name changes within the last twenty years. These changes do not just occur randomly but are based on the scientific study of individual species that are then ratified at a Botanical Congress (these take place every four years). Look for future changes on the web at "Tree of Life" and "Deep Gene," both of which are referenced on the "Deep Green" web (see references).

It looks like there will be a whole new classification system based mainly on genetic and chemical details.

(Continued on page 4)

PRESIDENT'S MESSAGE

By Kathy Korbholz

I am pleased to have been reelected president for the coming year, as 2003 will mark the Friends of Edgewood tenth anniversary. Throughout this year we will be celebrating and acknowledging the fine efforts the group has made in the continued support and preservation of Edgewood. To name just a few highlights:

- Supported adoption of a master plan which has as its primary objective protecting, preserving, and restoring Edgewood's natural resources
- Raised money for the Edgewood Interpretive Center and participated in the development of an initial building concept plan
- Coordinated the popular spring wildflower walks

(Continued on page 7)

TREASURER'S REPORT

By John Allen

For the year 2002 the Friends of Edgewood had income from membership dues, donations, our photo show **Expression of Edgewood**, and the sale of such items as wildflower brochures and T -shirts.

Principal expenses for the year included **Expressions of Edgewood**, producing and distributing the *Edgewood Explorer*, conducting the docent-led wildflower walks, and hosting the annual meeting and picnic. At year end we had a gain of over $2000.

Thanks for your continuing support. For more information, contact me at (650) 366-4910. `

ABOUT KINGLETS AND VIREOS

By Lee Franks

A 2003 calendar will show spring arriving on March 21, but for birdwatchers, spring is indicated by bird migration and song. On a cool late January or early February morning in the Park, a Ruby-crowned Kinglet (*Regulus calendula*), one of only two kinglet species existing in North America, will suddenly decide to sing, and the sleepy, gray woodlands seem to come alive.

Source: http://www.paulnoll.com/Oregon/Birds/

These olive-green-colored birds are common winter visitors, arriving in late September, and departing in March for their breeding grounds in Canada and Alaska.

Known for their loud and rich songs, this kinglet is one of North America's smallest songbirds and yet, with up to 12 eggs, lays the largest clutch of any songbird its size (4.25"). To me they always appear nervous, with their tails and wings flicking constantly as they hop from branch to branch in search of grubs and insect eggs.

It can easily be confused with its look-alike, the Hutton's Vireo (*Vireo huttoni*), a year-round Park resident. Hutton's Vireos, aptly described as "the spirit of the live oak tree," are similar

(Continued on page 4)

(PLANT FAMILIES, Continued from page 2)

Idea

Come up with something that will help you remember the order of the Cronquist plant classification system: Kingdom; Division; Class; Subclass; Order; Family; Genus; Species; Common name; (K,D,C,S,O,F,G,S,C):. E-mail me at corelli@coastside.net and we will see what we come up with.

References

Cronquist, A. 1981. An Integrated System of Classification of Flowering Plants. Columbia University Press.

Corelli, Toni 2002. Flowering Plants of Edgewood Natural Preserve. Monocot Press.

Hickman, J.C., editor. The Jepson Manual: Higher Plants of California. University of California Press.

Thomas, J.H. 1961. Flora of the Santa Cruz Mountains of California. Stanford University Press.

Cronquist System: http://www.csdl.tamu.edu/FLORA/newgate/cron1ang.htm

Deep Gene: http://ucjeps.berkeley.edu/bryolab/deepgene/

Deep Green: http://ucjeps.berkeley.edu/bryolab/greenplantpage.html

Nomenclature: http://www.calflora.net/botanicalnames/

[1] Based on the "Cronquist System" of plant classification.

(KINGLETS AND VIREOS, Continued from page 3)

enough in plumage, size, and behavior to the Ruby-crowned Kinglet, that their identification in the field can be quite a challenge. They are the only non-migratory of the 12 vireo species in North America. Unobtrusive, easily overlooked, the Hutton's is noticed most often by its persistent but insipid two-parted song, which we begin hearing in late winter.

Appearance

Ruby-crowned Kinglet—Both sexes are olive green-gray on the upperparts, with 2 strong white wing-bars, and a broken white eye-ring. The underparts are a dusky white. The male has a scarlet crown patch that is generally concealed.

Hutton's Vireo—Distinguished from the superficially similar kinglet by a thicker bill, broader broken eye-ring, and 2 distinct wing bars with the darkest part of the wing between the 2 bars. Also, this bird seems chunky and large-headed.

Behavior

Both birds move amid foliage and along

(Continued on page 5)

(MAPPING PROJECT, Continued from page 1)

resource mapping system to enhance the ability of Edgewood's managers and stakeholders to manage Edgewood's resources effectively."

Why a Mapping Project

Edgewood's Master Plan calls for "evaluation and selection of a resource management strategy" and we believe that the definition and implementation of such a strategy cannot be done effectively without an integrated database of site resources that relates those resources to a mapping system. Such a system is commonly referred to as a Geographic Information System, or GIS.

Benefits of Producing an Edgewood GIS

We believe that a GIS will enable Parks Staff to plan their management activities more effectively: timing trail brushing to minimize damage to native habitats while reducing the spread of non-native seeds; managing erosion control and trail maintenance activities to avoid sensitive habitats; and coordinating resource management activities among various stakeholders (e.g. weed management, bird monitoring, grassland restoration).

How You Can Help

We think it will take about a year to produce an operational prototype. One of the tasks that we intend to start soon is field data collection, which involves mapping Edgewood's resources using GPS tracking units (handheld devices that utilize the Global Positioning System of satellites to determine mapping coordinates). We will be forming teams to be trained on and then use these GPS units at Edgewood. If you would like to be involved, contact me at info@friendsofedgewood.org. `

(FIELD TRIP, Continued from page 1)
showed them the experimental yellow star-thistle mow site, and Paul Heiple demonstrated the evidence of insect biocontrol on many of the old YST seed heads.

Students from both classes spent the second half of their field trip helping to restore the Vinca-infested wetland near the west kiosk. Under the supervision of ranger Katie Beltrano, the first science class removed the plastic that was used to starve the periwinkle by blocking the sun's rays. The second class planted flats of California blackberry in the bare ground liberated of the invasive plant pest. The enthusiastic and effective work of the Sequoia students was greatly appreciated, and many thanks go to Katie Beltrano for the fine job of planning and orchestrating the project. It was very inspiring to have Katie witness to the students how much she values her work as a ranger.

I was very fortunate to have the expert docent leadership of Toni Corelli, Herb Fischgrund, and Paul Heiple, who was willing to assist with *both* field trips. Once again, I am keenly reminded that the Schools Outreach Program depends entirely on the dedicated participation of those few docents willing to lead school field trips for youth. `

(KINGLETS AND VIREOS, Continued from page 4)
branches with short hops, often aided by a flick of the wings, the kinglet appearing more active than the vireo. They prefer to move on horizontal branches rather than climbing up or down vertical branches or trunks. Their flights are short bursts of rapid wing beats, mostly within or between trees.

The kinglet and the vireo will often join mixed-species (i.e. chickadees, titmice, juncos, etc.) flocks, and both are extremely social. Vireo pairs can be found at any time of the year, indicating at least some year-round pair bonding. Kinglet bonding appears to be limited to the breeding season.

Both birds feed primarily on arthropods (insects, mites, spiders, etc.), although in the winter months they occasionally supplement their diets with a small amount of vegetable matter. They secure their food by gleaning it from twigs, under bark, or tree trunks. They are also known to hover to hawk insects or to glean prey from the underside of leaves.

Breeding
Nest size (3-4" high x 2-3" wide) and construction for both birds are similar. Their nests tend to be globular, or sac-like hanging cups, usually well hidden in tree foliage suspended from forks on horizontal twigs. Various combinations of lichens, mosses, fine grasses, moth and spider cocoons, feathers, small leaves are used as construction materials, all held together with spider silk. Loose strands of nest material are woven on either side of the chosen fork. The loose and hanging strands then are woven together at the bottom, creating the general shape of the nest. Next, finer strands are woven in, and when the structure can support the weight, the bird sits in the nest and arranges the bottom and sides with its feet and body. The female kinglet alone builds the nest, whereas both vireo sexes build. Kinglets locate their nests much higher in trees than do vireos.

A kinglet will lay twice as many eggs (10-12) as the vireo, but the incubation period for both is about the same (14 days), and the young of both remain in their nests for approximately 16 days.

Sounds
The kinglet has an astonishingly loud and rich song that starts out sounding like a motor

(Continued on page 6)

RANGER ROUNDUP

By Ricardo Trejo

In Ranger Beltrano's September 2002 Ranger Roundup article, she mentioned about recycling containers for the picnic area and new interpretive podiums.

Unfortunately, the recycling containers are on hold, and we do not have a date as to when we will receive them.

However, I can assure you that as soon that they are received, they will be installed.

In a positive note the interpretive panels that were funded by the Coastal Conservancy have been received and installed.

On Friday January 31st two rangers from Huddart Park assisted Ranger Beltrano with the installation of the panels.

Ms. Maxene Spellman, Project Manager from the Coastal Conservancy will be visiting Edgewood in the near future for a tour of the park and an inspection of the panels.

My thanks go to the many volunteers who helped with reviewing the text and gathering the photos that made up the panels.

Next time that you are in the area stop by and see the interpretive panels that were designed by The Acorn Group. `

(KINGLETS AND VIREOS, Continued from page 5)

chugging to life, and then morphs into a series of *chewy-chewy-chewy-chewys.* The typical song pattern of the vireo, on the other hand, is monotonous and unmusical. Their calls aren't much better in that they have a hoarse, scolding quality about them. Vireo songs are delivered from late January through August. They are fairly silent during the remaining months except for an occasional call.

Unpaired male kinglets appear to sing more

(Continued on page 8)

ADOPT-A-HIGHWAY UPDATE

By Ken Seydel

Our December 7th cleanup day was rained out, but 6 hardy souls showed up the following Saturday: Brian Cole, Carolyn Dorsch, Bill & Kathy Korbholz, Ulla Peterson, and Ken Seydel.

What a glorious day it was. It started out crisp and clear at 45°, but then warmed up to near 60°. The hills were newly green with the nourishment of the recent rains. As much as I love walking the trails of Edgewood Park, there is something special about walking off-trail on the soft earth!

As always we found interesting things with which to fill our bags. At one place there was a frozen dinner, a bottle of port, and a ten-dollar bill (some kind of party?). We met a 3-½ foot gopher snake. Found a tennis ball and two golf balls (where do they come from?), and a number of flags, and pieces thereof. The public probably needs to be educated about the proper disposal of worn out flags.

With the threat of some rain, and other commitments calling, some of our freeway warriors started early on our Feb. 1st cleanup. We had a good group of Brian Cole, Sarah Divine, Carolyn Dorsch, Katherine Greene, Billy James, Bill Korbholz, Ken Seydel, and our newcomer Barbara Barnes. Welcome Barbara! Together we garnered 20 bags of non-native substances.

Nothing very exciting was found. Perhaps people keep their windows closed during the winter. We always find money (25¢), and hubcaps (Honda, GMC, Mercury), and often some tools (Hammer, Phillips screwdriver). Not much in the way of wildlife — does a deer vertebra count?

At our next outing on April 5th we expect to see a great display of wildflowers. If you have an interest in joining our great group please contact me. We will see that you are safety-trained and equipped with your very own Picker, hard hat, goggles, gloves, and bright orange vest. `

(PRESIDENT'S MESSAGE, Continued from page 3)

- Contributed more than 2000 volunteer hours yearly through the Executive Committee efforts—not counting weeding!

To recognize those who will carry on this fine tradition in 2003, I'm happy to introduce the Executive Committee members for this year:

Officers (also Directors)

- **Kathy Korbholz**, President (Executive Committee Chair, Interpretive Center Project Rep, County P&R Staff Liaison)
- **Peter Ingram**, Vice President (Executive Committee Vice Chair)
- **Bill Korbholz**, Secretary (Volunteer Hours Tracking, Webmaster / Information Technology, Newsletter, County WMA Liaison, Weed Management Program Coordinator, Mapping Project Leader)
- **John Allen**, Treasurer (Docent Enrichment Coordinator)

Other Directors

- **Toni Corelli** (Plants & Habitat Advisor, CNPS Liaison)
- **Katherine Greene** (Publicity Coordinator, Wildflower Walk Schedule Coordinator)
- **Bob Young** (Director Emeritus, Membership Coordinator, P.O. Mailbox, Demonstration Garden Steward)

Other Members of Executive Committee

- **Frank Figoni** (Member at Large)
- **Julie Foster** (Docent Program Training Coordinator)
- **Carol Hankermeyer** (Schools Outreach Coordinator)
- **Ken Himes** (Weed Management Program Field Marshal)

You may have noticed that our ExComm membership is down, while our workload is not. If you'd like to get involved, even in a small way, join us for an ExComm meeting by calling me to select a meeting date. `

MEMBERSHIP DUES

New or renewing members may clip and complete this section to pay **tax-deductible** annual membership dues. Please send your check payable to **Friends of Edgewood Natural Preserve** to the return address on the back of this panel. Renewing members can determine their membership expiration date by checking the six-digit code to the right of their name on their mailing label. For example, if the code is 06/2001, membership runs through June 2001.

Questions, call Bob Young.

Name

Address

City State Zip

Home Telephone Work Telephone

- o $15 Basic Membership (includes newsletter)
- o $25 Family Membership (newsletter)
- o $7 Student/Retired Membership (newsletter)
- o $50 Supporting Membership (newsletter, *Edgewood Checklist of Plants*, and Edgewood photo greeting cards (boxed set))
- o $100 Benefactor Membership (above premiums plus Toni Corelli's 360-page fully-illustrated Flowering Plants of Edgewood Natural Preserve *while available*)
- o $250 Patron Membership (above premiums

- o I am enclosing a gift of _____.
- o Please send ___ copies of the *Edgewood Checklist of Plants* ($2), ___ copies of Flowering Plants of Edgewood Natural Preserve ($25). Includes tax, S&H.
- o Please do not send any premiums.

I would like to participate in the following:

- o Docent program o Weed management
- o GIS/GPS mapping o Schools outreach
- o Newsletter/web o Habitat restoration

UPCOMING EVENTS

o *Saturdays and Sundays, March 15th through June 15th*, **WILDFLOWER WALKS**. The flowers are already looking beautiful this season. Don't fail to come out this year. See insert for details.

o *Saturdays, April 5th, June 7th*, **ADOPT-A-HIGHWAY CLEANUP DAY**. New and veteran Road Warriors are welcome. For more information contact Ken Seydel.

o *Last Sunday of Every Month*, **SUNDAY BIRD WALK**. Meet Audubon Society docent Lee Franks at the Day Camp kiosk at 8:00 am.

(KINGLETS AND VIREOS, Continued from page 6)

often than paired birds. Occasionally males sing in flight between singing perches and, remarkably, males can sing while flutter-gleaning for insects and even while consuming prey.

Since male kinglets sing frequently during migration, winter month Park visitors have the opportunity to enjoy their rich, melodious sounds, especially in February and March as they contemplate their departure for breeding grounds to the North.

References

The Birds of North America: J. L. Ingold & G. E. Wallace ; No 119, 1994

The Birds of North America: Jeff N. Davis ; No 189, 1995

The Edgewood Explorer is published quarterly by the Friends of Edgewood Natural Preserve, a nonprofit organization dedicated to preserving Edgewood for the human, plant, and animal generations to come. The newsletter is produced by Bill Korbholz with assistance from Laverne Rabinowitz and contributions from many Friends. For more information about the Friends of Edgewood, visit our web site at www.friendsofedgewood.org, mail us at PO Box 3422, Redwood City, CA 94064-3422, call or fax toll-free at (866) GO-EDGEWOOD, or email info@friendsofedgewood.org.

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