FRIENDS OF EDGEWOOD NATURAL PRESERVE

# Explorer Edgewood

March 2012

### 2012 Sustainability & Green **Building Awards**

By Julia Bott, San Mateo Co. Parks Foundation



The Bill and Jean Lane Education Center has been awarded a Sustainable San Mateo County Green Building Honors Award for a public project. The recognition is very rewarding because at the Center, green design was part of the action plan, not an afterthought.

In granting the award the Jurors' commented: For a public project to reclaim and repurpose so many items from other public projects is impressive. The design team involved the community throughout the design

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process from selecting the building site to the choice of reclaimed tiles in the restrooms and even for the design of the future native plant garden. The center is sensitively sited at the location of a previous residence, and all existing trees were retained. The building features attractive daylighting of the exhibits, natural ventilation, and an 8 KW photovoltaic system.

Since 1999, Sustainable San Mateo County (SSMC) has presented the annual Sustainability Awards program to recognize San Mateo County businesses, community groups, and individuals that have demonstrated an outstanding commitment to bringing sustainable practices to their work. As part of this program, SSMC and the San Mateo County Chapter of the American Institute of Architects present the Green Building Awards. Susan Sommers and the Friends of Edgewood Natural Preserve were first recognized with a sustainability award by SSMC in 2002.

The awards event is scheduled Thursday, March 15. For more information, see SSMC's website at www.sustainablesanmateo.org.

If you haven't stopped by the center, plan to do so soon. The hosts will be glad to show you the green features. The center is open Wednesday mornings, Friday afternoons, Saturday, and Sunday.

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## Grant Funds New Ed Center Host Toolbox and Spurs Donations of Teaching Aids

by Laurie Alexander

A generous grant from the Kirven-Morse Family Fund, advised by Friends Frances and John Morse, recently funded the initial items for a new Bill and Jean Lane Education Center (Ed Center) Host Toolbox. The new Toolbox provides physical objects to actively engage Ed Center visitors. Touchable, flexible, replicas of local animal scat and tracks will assist hosts to better illustrate animal behavior and tracking skills. Realistic animal skulls will help demonstrate anatomy and adaptations of herbivores versus carnivores. Other items include laminated maps, models of butterfly lifecycles, and related books.

Beyond providing these hands-on tools, the Kirven-Morse grant also spurred additional ideas and donations from other sources. When advised that FoE was finally in a position to begin stocking a Host Toolbox, Jennifer Rigby of Acorn Naturalists, the design consultant who advised FoE during the planning and development of the Ed Center, recommended additional models and puppets. Acorn Naturalists, suppliers of environmental education materials, donated a replica of a coyote skull. Folkmanis – the most award-winning specialty puppet company in the world - donated hand puppets of a myriad of animals found in the Preserve to aid hosts in sharing stories about local ecology. Folkmanis' Marketing Director, Elaine Kollias, has also offered to help train hosts to bring the puppets alive and pique visitors' interest.

Friends of Edgewood (FoE) appreciates this generous and thoughtful funding, spearheaded by the Kirven-Morse Family Fund, that enhances the volunteer hosts' ability to interact with and educate Edgewood's visitors.

Study nature, love nature, stay close to nature. It will never fail you.

- Frank Lloyd Wright



Photo: Friends John and Frances Morse (shown with their grandchildren); they advise the Kirven-Morse Family Fund.

© Frances Morse



### Wildflower Walks Begin March 17!

Edgewood's serpentine grasslands are renowned throughout California for their lush wildflower carpets and rich biodiversity. Our free walks vary according to what's in bloom—covering about 3 miles, at a moderate pace, with frequent stops.

The walks in 2012 will take place every Saturday and Sunday from March 17 through June 3. Walks begin at 10:00 AM and end around 1:00 PM.

Walks start from the Education Center at the main entrance off of Edgewood Road every weekend throughout the season. On the 4 Saturdays of April, walks also start from the Clarkia Trailhead on Cañada Road.

#### The Protective Power of Yarrow

by Mary Anne Leary

A familiar Asteraceae family member that we enjoy along the trails of Edgewood Preserve is the white Yarrow, *Achillea millefolium*. Yarrow grows in the grassland or the open woodland areas during the months of April through July. Per Toni Corelli in her book *The Flowering Plants of Edgewood Natural Preserve*, the Yarrow "species is circumpolar, occurring on all continents in the northern hemisphere."

Yarrow's flowering heads are comprised of ray and disk flowers. The Greek name for the flower is *Achillea*, named after the warrior Achilles, with the plant's name for the fern-like leaves derived from the Greek word *millefolium* meaning thousand leaves.

Some common names for Yarrow are Milfoil and Thousand Leaf (both referring to the signature of the leaf), Solder's Wound Wort, Yarroway, Nosebleed, and Carpenter's Weed, though many other names are attributed to it. The Ojibwe Indians called it Squirrel Tail, the Teton Dakotas named it "tao-pi pezu'ta" which translates to "medicine for the wounded", and the Ute called it "wound medicine." Historical records show that Yarrow was used to treat wounds during the American Civil War.

Yarrow has proven to be invaluable medicine for many thousands of years. Yarrow pollen and seed has been found in burial caves dating back 60,000 years and other archeological excavations. Many docents like to tell the story of how the Yarrow plant was named after Achilles, the Trojan warrior, who used the powdered herb for tending war wounds in order to staunch the flow of blood. Yarrow can be infused in oils or salves for healing wounds and also can be taken internally as a tea or tincture to effect change.

Yarrow has been used for medicine, divination, and ceremonial uses throughout the ages. The dried stalks of the plant can be used for I Ching readings. Yarrow is a bitter tonic herb that is well respected, not only for hemorrhage, but also as a diaphoretic, being used to reduce fever by inducing perspiration.

Yarrow can be distilled into a blue-green colored essential oil (the color can vary depending upon its chamazulene content) and is used topically in a diluted form, to treat neuralgia, muscles injuries, liver weakness, and tendonitis. Its properties are cell regenerating and anti-inflammatory. Homeopathically, Yarrow is known as Millefolium. It is written about briefly in the homeopathic material medica, however, it is far more widely used in its herbal form.

An old gypsy remedy that is still popularly used for colds and flu is a tea of yarrow, peppermint and elderberry flowers. The tea helps to promote perspiration allowing the fever to 'burn up' the invading bacteria. Chumash Indians would suck on a yarrow leaf until it lost its flavor in order to get the proper dose they felt the body could absorb.

Yarrow is a good companion plant in vegetable gardens. Its root secretions are said to be strengthening to other plants and actually make them more disease resistant. Due to the volatile oils in the Yarrow's leaves the plant is also said to discourage crop damaging insects.

As a flower essence, Yarrow is very useful for providing healthy energetic boundaries for those who are sensitive to other people's thoughts and energy. Often times someone with these sensitivities is overly absorbent of such influences in their environment, feeling depleted due to the stress. I often think of the flowering head of Yarrow as providing an umbrella of psychic protection helping those who need to strengthen their overly porous energy fields. Golden Yarrow, Eriophyllum confertiflorum, which can also be found in Edgewood, is a useful remedy for outgoing people who feel they need to withdraw due to their energetic sensitivity in social interactions. Pink Yarrow, which used to be planted in the Old Stage Camp area, is for those who are particularly sensitive to taking on people's emotional issues. All of the Yarrows provide a sense of protection, healthy boundaries, and a strengthening of one's energy field, allowing us to have healthy interactions socially and with the environment.

#### References:

- Flower Essence Repertory, Patricia Kaminski and Richard Katz
- A City Herbal, Lore, Legend, & Uses of Common Weeds, Maida Silverman
- Fraction The Book of Herbal Wisdom, Matthew Wood



Yarrow, Common; *Achillea millefolium* © Kathy Korbholz



#### Relationships Matter...Two Nature News Nuggets on Relationship Matters

By Carolyn J. Strange

#### ¶ Better to Deal With the Devil You Know...



Credit: Ken Bohn, San Diego

Endangered Stephen's kangaroo rats live solitary lives on small plots of Southern California grassland, which they vigorously defend from each other. These little Hatfields and McCoys may hate each others' guts, but

their life-saving familiarity lets them spend less time fighting and more time foraging. Thanks to this "dear enemy effect," rats relocated along with their neighboring rivals fare much better than rats mixed amongst strangers.

This kangaroo rat's range is small to begin with, and invasive grasses threaten the remaining habitat that sprawl hasn't already covered. But previous relocation attempts have failed to result in lasting populations. Almost 600 rats relocated in 1992 vanished in less than a year.

More recently, when researchers from the San Diego Zoo Institute for Conservation Research removed animals from three doomed habitats, they kept track of the rats' relationships in the 'hood. They moved 54 rats to new protected habitat in 2008 and another 45 in 2009. In the new digs, half the rats kept their old neighbors and half didn't.

Three years later, the original population of 99 had grown to 400. Survival was higher among the rats moved with their neighbors, who produced 24 times as many pups as the group that was thrown in with strangers! Only 3 out of 20 females in the stranger group even survived the first 6 months.

In the face of climate change and habitat loss, relocating species in order to save them seems promising to many people. But ecosystems are complex adaptive systems, not machines; nor are the creatures within them interchangeable cogs. Translocation biology, a developing field, recognizes the possibility of layers of relationships that might need to be monitored and preserved. Seems like a no-brainer: When contemplating a big move, it's best to minimize stress.

http://www.sciencenews.org/index/generic/activity/view/id/335233/title/Take\_my\_enemy%2C\_please

#### **¶** Trading Fairly

Perhaps the world's best example of fair trade may occur in dirt, but the transactions are squeaky clean. The exchanges, closely monitored by both parties, tend to be scrupulously reciprocal. Of course, plant roots and fungi have been perfecting the details of nutrient trading for several hundred million years.

Mutualistic associations between fungi and plant roots are called mycorrhizae (*mykós* = fungus, *riza* = roots), and the vast majority of plants partner with fungi on or in their roots. With their extensive underground networks, the fungal partners gather water and minerals to spare, but they come up short on sugars, which they can't produce. Plants make abundant sugars in their leaves during photosynthesis, but they appreciate help gathering minerals and water, along with many other partnership benefits.

Mycorrhizal intimacy varies, depending on the plant and fungal species involved. Fungal threads and plant rootlets may twine together and leave it at that. More commonly, however, fungal threads penetrate rootlets, and often, once inside the root, the fungus forms highly branched tree-like structures, or arbuscules, for nutrient exchange.

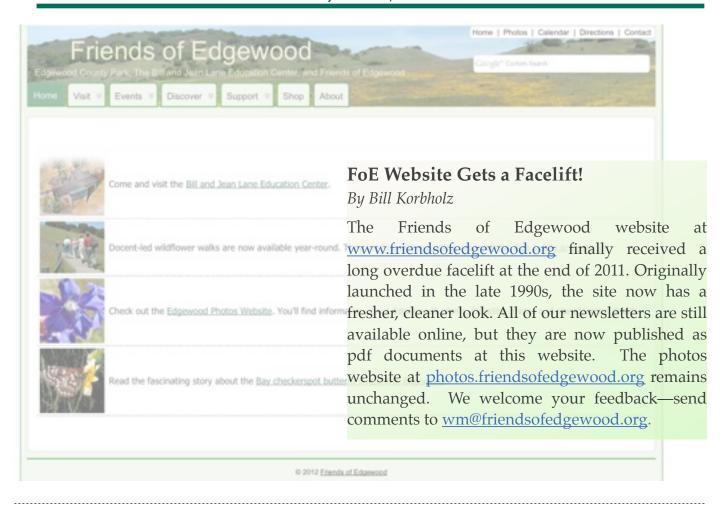
In such a cozy system, what makes the partners hold up their respective ends of the deal? Researchers recently revealed that within an arbuscular mycorrhizal system, cheaters don't prosper. Plant roots can detect which fungal threads are delivering more goods and reward them accordingly. Likewise, fungal threads can detect and reward good root providers and shirk malingerers.

The complicated experiments involved providing isotopes of carbon (to the plants) or phosphorus (to the fungi) then testing isotope levels in the symbionts. Comparisons among less cooperative fungal species revealed that some engaged in "hoarding," that is, storage of a nutrient in a form accessible to the fungus but less useful to the plant partner. The plant responded accordingly with less reward. (Hoarders don't prosper either.) Further experiments are necessary to determine if trading works similarly for other nutrients, such as nitrogen, and in other mycorrhizal systems.

Might humans learn from an ancient, stable, biological market? Let's see, tight two-way monitoring and regulation of trade within simple, short feedback loops (lacking middle men)...

http://www.sciencenews.org/view/generic/id/333224/title/

<u>Plants\_and\_fungi\_recognize\_generous\_trading\_partners</u> <u>http://en.wikipedia.org/wiki/Arbuscular\_mycorrhiza</u>



#### 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 the mailing label. For example, if the code is 06/2011, membership runs through June 2011.

Questions? Lv msg at (866) GO-EDGEWOOD (866.463.3439) or contact membership-coordinator@friendsofedgewood.org

Name:				
Address:				
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_	\$10 Student/Retired (includes quarterly newsletter)		
	\$25 Friend (newsletter)		
ב	\$50 Advocate (newsletter, set of 6 Edgewood greeting cards)		
<b>_</b>	\$75 Supporter (newsletter plus choose one)		
		Set of 6 Edgewood greeting cards and 1-year subscription to <i>Bay Nature</i> magazine	
		Toni Corelli's Flowering Plants of Edgewood Natural Preserve	
	\$100	Steward or 🖵 \$250 Guardian (newsletter, set of 6 Edgewood	
1	greet	ing cards, plus choose one):	
		1-year subscription to Bay Nature magazine	
J		Toni Corelli's Flowering Plants of Edgewood Natural Preserve	
	Please	e keep the premiums and maximize the value of my dues.	
	I am	enclosing a gift of	

8 8
Please send (subject to availability):
copies of Common Native Wildflowers of Edgewood @ \$1.50;copies of
the Edgewood Vascular Plant List @ \$3.00;copies of the Apr-Jun 2004 Bay
Nature magazine @ \$6.00;copies of Flowering Plants of Edgewood Natural
Preserve @ \$12.00. All prices include tax, shipping & handling.
I would like to participate in the following:
Docent program D. Junior explorer program

Docent program	Junior explorer program
☐ Education Center host	Habitat management
☐ Newsletter/web	Organizational support
Public relations	☐ Adopt-A-Highway

#### Bill and Jean Lane Education Center (EC) -Hours of Operation\*

Wed	9:30 am to 12:30 pm
Fri	1 pm to 4 pm
Sat	9:30 am to 4 pm
Sun	9:30 am to 4 pm

<sup>\*</sup>Subject to volunteer staffing.



#### **UPCOMING EVENTS**

#### Adopt-a-Highway

Next Sessions: 3/4, 4/7, 5/6

To volunteer or get more information, contact Ken Seydel at adoptahighway-coordinator@friendsofedgewood.org



Wildflower Walks

begin March 17, 2012 Admission is FREE!



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 edited by Linda Leong and is supported by contributions from many Friends. For more information about the Friends of Edgewood, visit our web site at <a href="www.friendsofedgewood.org">www.friendsofedgewood.org</a>, mail us at PO Box 3422, Redwood City, CA 94064-3422, leave message or fax us toll-free at (866) GO-EDGEWOOD (866-463-3439), or email us at <a href="mailto:info@friendsofedgewood.org">info@friendsofedgewood.org</a>.

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#### ADDRESS SERVICE REQUESTED



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