



Why Names Matter: The Ever Changing California Flora

by Michael Plotkin

When Linnaeus set out, in the early 1700s, to catalogue every species and genus of plant in the world, he assumed these would amount to a manageable number. He was confident enough in the ability of science to catalogue botanical diversity that he exhorted botanists to know the key characteristics of every genus should they desire to be called competent.

By modern standards his effort, and its attendant exhortation, are magnificently naive—and not only because the number of genera and species is far greater than Linnaeus envisioned. There lurked a more insidious flaw in Linnaeus' endeavor: for he assumed, as did nearly everyone in that era, that every species was discrete and unchanging, specially created instantaneously in the recent past. It was not until Darwin, a hundred years later, that the concept of special creation was decisively dispatched. Darwin, among his other mischiefs, convinced us the world is a lot older and messier and more dynamic than we had dared imagine.

Darwin's disruptive influence continues today, prompting a series of nomenclatural upheavals nearly certain to vex even the most zealous naturalist. If you have invested any effort in learning the local plants, you might understandably be a bit exasperated to learn that the beautiful asters you see on your walks are no longer asters. They are now American-asters, a new common name to reflect their new scientific name. In fact, no members of the genus *Aster* exist in our flora anymore. The death camas retains its common name, but has a new genus. The weedy horseweed (formerly *Erigeron*) has been changed to the genus *Conyza*, which also includes the popular garden fleabane daisies. Perhaps even more discomfiting to the botanically inclined, the large figwort family (the "scrophs") and the even larger lily family have been radically revised.

These, and many other recent changes point up a common complaint of that elect segment of the population who devote themselves to learning the local flora: the darn names keep changing. We are left with the unfortunate impression that taxonomy (the science of naming organisms) is desul-

tory and even capricious. Taxonomists behave as if they were overly susceptible to puerile fads, flip-flops, bandwagons, and political machinations.

And perhaps they are, but there do exist valid scientific reasons for taxonomy's changes of course. Ultimately, we can blame Darwin for the bother of periodic renaming frenzies. Fortunately, we do not need to understand much evolution-

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Art Auction, Gala Benefit Nature Center

By Cathy George

American River Parkway landscapes, plants, and animals will once again be highlighted in original artwork at the third annual Painting Where the Wild Things Are Gala and Art Auction at the Effie Yeaw Nature Center Saturday, June 9.

Sponsored by the American River Natural History Association (ARNHA) in collaboration with the Sacramento Fine Arts Center, it has been one of the most successful fundraisers benefiting the Nature Center, having raised about \$30,000 in each of the past two years. Artists donate half or more of their sale proceeds to the total.



ARNHA is honored to have Terry Pappas, renowned local artist, jury this year's show. (Her painting of the American River graces invitations to the gala.) Artwork that is selected will be displayed at the Fine Arts Center at 5330 Gibbons Dr., Carmichael, from May 8 to May 26. The art will be featured in a Second Saturday exhibition at the Fine Arts Center on May 12 from 5:30 p.m. to 8:30 p.m.

After May 26, the art will be moved to the Effie Yeaw Nature Center for the gala.

The art gala and auction will be held at the Nature Center in Ancil Hoffman County Park from 4 p.m. to 8 p.m. on June 9. Tickets are \$40 and will sell out quickly. Reservations are required and can be made by calling EYNC at 916-489-4918 or online at www.sacnaturecenter.net starting May 1.

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President's Message

The Most Important Thing

This morning as Connie and I moseyed along Lake Natoma, looking for Chinese Houses, I was again struck by how strong the connection to natural places is for many people. Nearly all people would enjoy the pretty setting, warm sunshine, blue sky, and the soft breeze on the lake. It is innately human to enjoy these things. But for many it is a much deeper feeling, a sense that you are where you belong; you come to life, and your curiosity and sensibilities are elevated. There can be many reasons for this, I suppose. But I believe that for many people the deeper connection was sowed early in life when the smell of blue oak woodland on a lazy summer day, or the mesmerizing movement of water in the river bonded with an otherwise pleasant childhood experience to create an "imprint" on their personal world view. For many this imprint is always there, just under the surface ready to emerge with the slightest contact with a natural setting. It guides their fundamental orientation to the world and provides them with flashes of pleasure that instantly take them back to those first encounters with the natural world.

Providing the opportunities for this imprint, this connection to nature, is a life-long gift that one generation must give to the next. The ARNHA mission of "Bringing people to nature, and nature to people" establishes our essential purpose, but I believe that implementing this mission for young people is the most important thing. Today so many things work against children receiving exposure to the outdoors and establishing that imprint that will carry through their lives. Among these are the electronic entertainments that encourage sedentary lives; the lack of readily accessible, informal open space in communities; and the diminished funding for environmental education in schools. The antidote to all of these is fun, exciting contact with natural places.



Our organization has wonderful resources to provide environmental education at the Effie Yeaw Nature Center, and in the documents produced by our exceptional ARNHA Publications Committee. Through the dedication of the EYNC staff and volunteers, and the exceptional generosity of many individual and corporate donors, EYNC has sustained, and even grown, the program offerings. EYNC will always be at the core of the ARNHA mission, but the Nature Center can only accommodate so many visitors per year without risking deterioration of the nature study area, and districts cannot always transport school children as before. We must reach out farther into the community to expand opportunities for pleasant, meaningful connections to the outdoor world for all kids.

Developing new programs, or reinvigorating old ones, to reach out can take many avenues. The nature experience need not be in a programmed setting such as the Nature Center. There are many opportunities for a worthwhile experience in small remnants of natural open space throughout the region. The new communications technologies can be useful in reaching out to make kids and parents aware of natural places near neighborhoods and providing information about them so they can be visited informally by families, classes and other groups. Developing a network with programs and institutions that have similar goals can provide mutual support in program sharing, transportation sharing, marketing

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and grant opportunities. Developing a broad cadre of docent volunteers who can provide guided tours in a variety of locations will increase the opportunities for nature experiences in the community. These are just a few of the ideas that might be developed to implement ARNHA's fundamental goal of bringing people to nature, and nature to people.

As always ARNHA welcomes new ideas and the energy and dedication of the many volunteers who make the organization a success. If you also believe that conveying that sense of wonder in the natural world to the next generation is "the most important thing", please come offer your ideas and energy to ARNHA's efforts to reach out to the area youth.



David Wade, President, ARNHA

The new 4th edition of [Biking and Hiking the American River Parkway](#) is available at the Discovery Shop inside the Effie Yeaw Nature Center, and selected local bookstores, for \$14.95.

Gala, from page one

On the day of the gala and auction, from 9 a.m. to 1 p.m., artists will be creating *plein air* paintings throughout the EYNC nature preserve. Visitors are invited to watch the artists at work and their paintings will be for sale during the evening. For more information or to participate in the *plein air* event, contact David Peterson at 916-716-5951 or at aquacolorist@yahoo.com. In addition to the art auction, there will be a greatly expanded silent auction of gift items and experiences, including theatre and concert tickets, raft rentals, gift certificates for valuable experiences such as a Hearst Castle tour, wine tasting, museum visits, dining, and car care. The catalog of items is available on the Nature Center's website, sacnaturecenter.net.

Spoons Encore Fine Catering will provide an international buffet with Italian, Asian, Mexican, and American stations. The menu will include Caprese and White Bean Salad, Lemon Grass Mussels and Coconut Ginger Rice, Carnitas and Roasted Corn Relish, Southern Fried Chicken, and a selection of three home-baked desserts.

Music will be provided by singer Lisa Phenix and her group, among others.

Sincere thanks to our generous supporters: Abba Dabba Rentals, Paula Baldi, Ted and Melza Barr, Pat Mahony-Getz

and Randy Getz, Inside Publications, Janice and Ralph Livingstone, sbw design, Susan Skinner, and Western Health Advantage.

We hope you are able to join us for this exciting evening with friends and fellow nature lovers to support the work of the American River Natural History Association and the Effie Yeaw Nature Center to help children and adults experience the beauty and diversity of the American River Parkway.

One More Reason To Attend Gala

As an incentive to build attendance at the June 9 Painting Where the Wild Things Are Art Auction and Gala, local photojournalist Susan Skinner is donating copies of her award-winning book *Carmichael—Americana on the Move* for attendees, while supplies last.

"This is my effort to help this fantastic nonprofit, the American River Natural History Association," she said.

The book is a beautiful, full color photo essay on Carmichael, featuring its people, architecture, history, flora, and fauna, all portrayed with great artistry and humor.

Susan said she had set no limit on the number of books she would donate, only that it can be only one per family/household "This is a value of \$25 per copy and represents fantastic value for the ticket purchase of \$40," she added. ■

ARNHA Webmaster Georgia Jones Dies at 77

Web designer Marty Maskall recalls working with Effie Yeaw Nature Center docent Georgia Jones to develop the ARNHA website in 2005. "She was an eager pupil and a joy to work with," she said. "It didn't take long for her to catch on, and she did everything after that."

That was a typical memory offered by those who knew and worked with Georgia, who died of cancer in a nursing home April 28 at the age of 77. As arnha.org webmaster, she was "dependable and upbeat, and always willing to learn new things at our meetings," said Molly Keller a colleague on the Media/Publications Committee.

Media/Publications Chair Peggy Kennedy praised Georgia for promoting ARNHA publications on the website and helping fulfill book orders. Claudia Hulbe, also a committee member, said Georgia was adept at "recruiting people to contribute articles to arnha.org, and having a lot of good ideas."

Kari Bauer, another committee member, was a member of the nature center docent class with Georgia in 1999. "She was one of the most upbeat people I knew, very gentle, very kind, and loved nature." And Nature Center

Volunteers Director Jamie Washington said when she asked Georgia to lead a group of children on a nature tour she would "step up and do a lovely job. She had a can-do spirit."

Georgia was survived by her husband, Gerry, and a son, James, a San Francisco attorney. Gerry said he was tentatively planning a "Celebration of Georgia's Life" this summer, perhaps at the nature center. A native of Baisden, WV, Georgia met Gerry when both were students at Marshall University, Huntington WV, and they were married in 1960. Georgia worked for many years at the California Employment Development Department. ■

Photo by Kari Bauer



ary theory to understand the plots and intrigues of taxonomy. We need only consider what scientists are attempting to do with our scientific naming system. It is far more grandiose than you might realize.

What's In a Name?

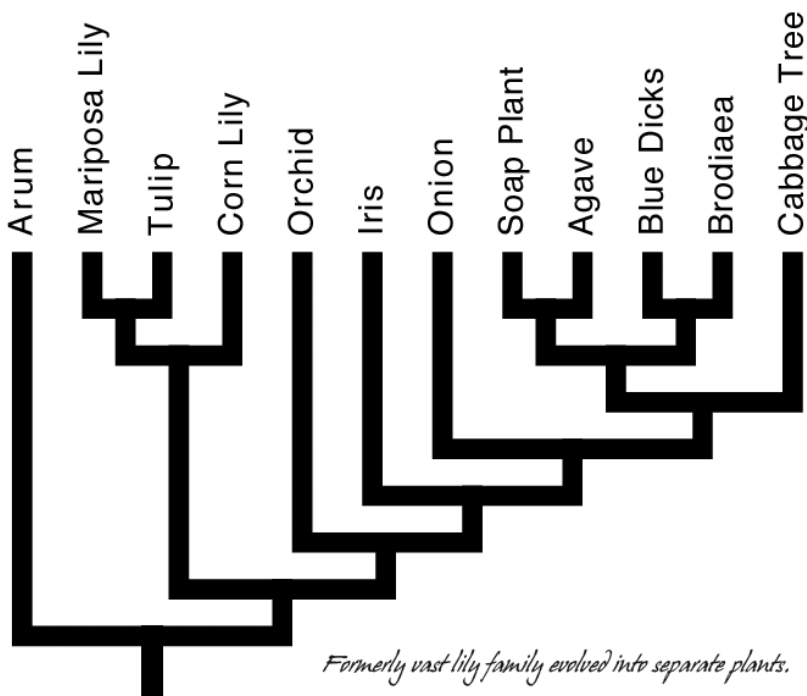
Foremost, of course, scientists need a set of unique names, so that any scientist anywhere in the world will know exactly what organism is attached to what name. But a scientific naming system also strives to encapsulate certain other sorts of information, and thereby

transcend the tedium of functioning as a mere set of convenient labels. Rather we would have our name system serve as an instrument of science, revealing evolutionary patterns, allowing insights into the biology of adaptive traits, and, in proportion to its accuracy, conferring predictive power.

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Consideration of these expanded functions of our taxonomic scheme quickly brings us to the kernel of the deeper issue. The changes in the names reflect profound changes in the “program” of modern botany (and biology in general). In the past, scientists were content to classify organisms by arbitrary

criteria. Linnaeus, for example, grouped plants by the number of stamens, pistils and other flower parts. But, modern taxonomists have steadily moved away from mere classification to pursue a fundamentally different and more ambitious goal. Today biologists aim to reconstruct the evolutionary history of life on earth. We are no longer willing to apply fixed, Procrustean categories to organisms. Now we would discover the relationships between organisms, and craft not mere names, but a system of names that reflect and extend what we have discovered.



Formerly vast lily family evolved into separate plants.

Darwin's Disruptive Influence

The notion that the names should be maps to what we know about the evolution of organisms has created a set of rules for taxonomy that both increases its value and instigates upheavals. Simply put, the primary policy is that names should be given only to evolutionary groups, or lineages. These groups must comprise all the organisms who share a common ancestor and they must share this common ancestor more recently than they do with any other organisms. In other words, names can only refer to entire lineages and not selected parts of lineages.

The policy of naming only lineages presents challenges for taxonomists, and this is one of the major reasons names in our flora change. With the advent of huge amounts of data on relationships, especially data derived from molecules such as DNA, our understanding of the evolutionary relationships has been improving rapidly.

Consider the lilies, as a prime example. In the past, botanists recognized a vast lily family, containing the typical big orange or yellow lilies plus tulips, mariposa lilies (such as fairy lantern), corn lily (or false-hellebore), wild onions, soap plant, agaves and yuccas, blue dicks, Ithuriel's spear, brodiaeas, and the ornamental cabbage tree (*Cordylina*).

When we pieced together the relationships among this motley group, the swollen lily family clearly did not accurately reflect the evolutionary relationships. Soap plant turned out to be more closely related to agaves than to the typical lilies, like mariposa lily. And in between these two are the irises and orchids. Few botanists would want to subsume irises and orchids into the lily family, so for the lily family (*Liliaceae*) to refer to a lineage, it must be restricted.

A New California Flora

California is lucky to have a comprehensive flora for the state, called *The Jepson Manual*. Any one who is interested in plants knows about “the Jepson” and many local field guides, such as ARNHA's *The Outdoor World of the Sacramento Region* are based on it.

This year the University of California Press has published a long awaited and heavily amended second edition of the flora. In this new Jepson Manual, names of “convenience” were explicitly eschewed in favor of names that accurately reflect evolution. And so a series of radical changes to the familiar names have been adopted in the manual. Some of these we will surely rue. For instance, as I noted earlier, the genus *Aster* no longer exists in our flora. Most of the

continued next page

Flora, from page one

asters we might find in our region, such as the California or purple aster, *Aster chilense*, are now in the genus *Symphotrichum*. Several families are completely gone: *Taxodiaceae* (which included



Blue
Dicks

the redwood and Sierra big tree, *Sequoia* and *Sequoiadendron*) has been subsumed into the cypress family, *Cupressaceae*. The milkweed family, *Asclepiadaceae*, has been subsumed into the dogbane family, *Apocynaceae*. The waterleaf family, *Hydrophyllaceae*, which included yerba santa (*Eriodictyon*) and the genus *Nemophila* (e.g. baby blue-eyes), has been lumped into the borage family *Boraginaceae*.

Some of the most unnerving changes, however, involve the lily, the figwort or snapdragon, and the purslane families. These larger, well-known and well-loved families have been mostly dismantled in our flora, leaving many familiar plants in unfamiliar families. For example, among the lilies, the common soap plant (*Chlorogalum pomeridianum*), is



now in the agave family, *Agavaceae*. The Brodiaeas (*Brodiaea* spp.) Ithuriel's spear, wild hyacinth (*Triteleia* spp.), blue dicks (*Dichelostemma capitatum*) are now in a new

Fennel gives off a licorice-like fragrance when pressed

family *Themidaceae*. Wild onions get their own family, *Alliaceae*, and corn lily or false hellebore and the camas lilies (formerly in the genus *Zigadenus*, but now called *Toxicoscordion*) are in the family *Melanthiaceae*.

Finally, miner's lettuce, and red maids, both familiar plants of the Central Valley have been placed in the Miner's Lettuce family, *Montiaceae*, along with the succulent lewisias and pussy-



Miner's
Lettuce

paws (*Calyptridium*) of the mountain west. The only plants remaining in the purslane family, *Portulacaceae*, are members of the genus *Portulaca*.

I hope I have given you a brief (if woefully inadequate) summary of the most recent advances in our understanding of the flora of California, and provided you at least a cursory explanation of why these advances lead



Yellow
Mariposa
Lily

to upheavals in taxonomy. Perhaps this will replace any residue of ire you harbor with wonder at our rapidly increasing knowledge of life on earth.

Michael Plotkin lives in Davis and visits the American River Parkway whenever he can. He has contributed several articles to The Acorn in the past. He is currently an Associate Professor at Mt. San Jacinto College, Riverside County, and teaches Biology. ■

Flora images are from the Outdoor World of the Sacramento Region, revised color edition, with a publication date later this year.



Golden
Aster



Telegraph
Weed



Purple
Aster



Horseweed

EYNC Key to Parkway 'Treasure' Honor

By Peter Hayes

ARNHA's and the Effie Yeaw Nature Center's key roles in environmental education were highlighted at a California Park & Recreation Society, District 2, ceremony honoring the American River Parkway with its "Regional Treasure" award.

The organization of park and recreation professionals established a Hall of Honor to recognize significant, historical park, recreation, and leisure contributions to the quality of life within its 19-county boundaries.

ARNHA Associate Board members Betsy Weiland, Katie Baygell, Board member Noah Baygell, along with Save the American River Association (SARA) Immediate Past President Warren V. Truitt developed the application and documents submitted by ARNHA and SARA that led to the recognition of the Parkway.

In remarks at the March 9 ceremony, ARNHA President David Wade noted that the Parkway is the setting for ARNHA programs including the nature center named for school teacher and conservationist Effie Yeaw, who 55 years ago began leading school children on nature walks in the area.

"Today the EYNC continues to provide a range of cultural and natural history classes for school children as well as the general public," David said. "The Nature Center is a unique asset to the Parkway, providing live animal exhibits, indoor special features such as the current Wild About Wetlands' Interactive Exhibit. Outdoor classes provide an opportunity for children to have a direct, hands-on experience with wildlife in a natural

oak woodland and riparian setting. The public has access to an open trail system that often provides a view of wild turkey, deer, and other birds and animals.

"The American River Parkway is a truly regional treasure that is the essential setting for fulfilling ARNHA's mission of environmental education and 'bringing people to nature, and nature to people.'"

Warren V. Truitt, immediate past president of the Save the American River Association, also spoke, tracing the history and importance of the Parkway beginning in 1915 when City Planner John Nolen, a disciple of famed park developer Frederick Law Olmstead, submitted the first parkway plan to the City of Sacramento.

"The Parkway not only serves as natural habitat for a great variety of wildlife but also as a resource providing opportunities for all forms of recreation -- both active and passive on land and water," he said. "Recreational use of the Parkway is estimated at 8 million visits per year -- more even than Yosemite receives annually."

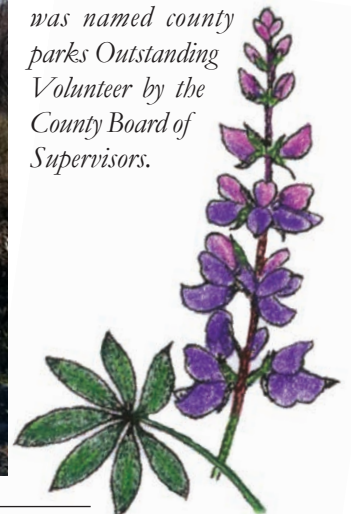
Further, the Parkway is "truly an economic engine" to the Greater Sacramento Area, Warren said, contributing \$365 million annually in direct and indirect spending for all Parkway goods and services in the area.

"Ultimately our community will thrive or diminish, depending on whether we take care to protect and preserve our community's major natural asset, the American River Parkway," he said. ■



Photo by David Wade

Peter Hayes is co-chair of ARNHA's Publications Committee. A career journalist, he is author of THE AMERICAN RIVER ALMANAC and AN AMERICAN RIVER JOURNAL and editor of several ARNHA publications. In 2009, he was named county parks Outstanding Volunteer by the County Board of Supervisors.



Lee Wilner and Volunteers Honored



Lee Wilner, a “dedicated leader who provides a voice of reason and vision,” received extra recognition at the ARNHA Wintertime Volunteer Appreciation Party at the Effie Yeaw Nature Center Feb. 9. Lee, Vice president and Membership Committee chair during a long-term ARNHA Board membership, was among 33 volunteers recognized by EYNC Volunteer Director Jamie Washington.

An ARNHA Board proclamation signed by President David Wade, not only cited Lee for his Board leadership, but described him as “a volunteer who contributed well over 5,000 hours, personal resources, and multiple talents in support of the Effie Yeaw Nature Center.”

In response, Lee remarked, “It’s been my pleasure to serve the Nature Center as it teaches children and young adults to respect and preserve the environment and its animals, so that they don’t do like my generation and muck it up!”

In introductory remarks, EYNC Executive Director Paul Tebbel told the capacity audience of volunteers, relatives and friends, “We’re having a great year, and we’re going to keep the Nature Center open a long time. People are flocking here -- last Saturday we had 400 people at EYNC, and captured a ton of email addresses. We’re putting ARNHA on the map.”

ARNHA First Vice President Diana Parker told the volunteers, “Along with a dedicated staff, volunteers are the heart and soul of any non-profit organization, and the American River Natural History Association and the Effie Yeaw Nature Center are fortunate to have YOU, a core of wonderfully talented and dedicated volunteers. The diverse needs of the Nature Center are met by a passionate, willing group of volunteers. On behalf of the Board of Directors of ARNHA, I want to extend a sincere thanks for all you do to make the Nature Center a success.”

Volunteers recognized:

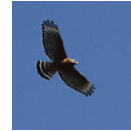
100 hours, given a bandana: **Susan Bristow**, office help and fundraising; **Donna D’Amico**, animal care assistant; **Sue Davis**, docent; **Rachel Freund**, animal care; **Linda Hoganson**, receptionist; **Gregg Hutchi-**

see volunteers, next page



You can find a comic face in the blossom of the **Bush Monkey-Flower**

Bird and Breakfast An Event to Remember

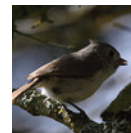


This year’s Bird and Breakfast, on Saturday, March 10, was just about as good as it gets. The sun shone, Bushtits and Lesser Goldfinches and Anna’s Hummingbirds built nests, a herd of Sandhill Cranes with their pre-historic-sounding calls serenaded from above, and a river otter frolicked in the pond. Red-tailed, Red-shouldered, and Cooper’s Hawks were all actively courting, and a Northern Harrier came into view.



In total, 62 bird species entertained a sold-out crowd of birders, and 12 expert birders from the Sacramento Chapter of The Audubon Society served as guides. Spotting scopes gave superb views of bird nests, and the usual home-made brunch featured an astounding array of casseroles, nut breads, corn bread, homemade jams and marmalades, oatmeal with five different toppings, strawberries, oranges, and bananas. Starbucks donated the coffee, and a variety of hot-teas and cocoa were also offered.

Photos by Linda Pittman



The event brought in \$2,800 for environmental education and science literacy programs at the Effie Yeaw Nature Center.



Photos by Linda Thomas

volunteers, from previous page

son, maintenance and special events; **George Landry**, animal care, maintenance; **Phyllis McGrath**, docent.

160 hours, given an EYNC t-shirt: **Sakereh Carter**, animal care; **Marilyn Escobar**, receptionist; **Cathy George**, receptionist; **Ethan Glass**, receptionist; **Libby Harmor**, special events; **Bruce Kennedy**, ARNHA Board; **Brandi Ross**, Nature Day Camps Assistant.

250 hours, given an engraved EYNC pen: **Joey Johnson**, fundraising assistant; **David Wade**, ARNHA Board; **Nancy Westlund**, receptionist.

500 hours, given an EYNC mug: **Cindy Dunning**, ARNHA Board; **Don Mongeau**, ARNHA Board; **Gail Philippart**, docent.

1000 hours, name engraved on plaque on the exhibit room door: **Elaine Hujambojoie**, clerical assistant.

1400 hours and up, given a certificate and our undying gratitude:

Paula Baldi, 6000+ hours, ARNHA Board; **Marjorie Denhart**, 2800+ hours, receptionist; **Carol Doersch**, 5000+ hours, ARNHA Board; **Walter Dong**, 1800+ hours, docent, habitat restoration; **Peter Hayes**, 1800+ hours, ARNHA Board and publications; **Jack Hiehle**, 3500+ hours, educator, habitat restoration; **Georgia Jones**, 1900+ hours, ARNHA Board, web-master; **Peggy Kennedy**, 1400+ hours, ARNHA Board and publications; **Nancy Oprsal**, 3400+ hours, docent and special events; **Diane Ramsey**, 1500+ hours, receptionist; **Greg Voelm**, 2300+ hours, ARNHA Board; **Liz Williamson**, 2000+ hours, ARNHA Board, receptionist, animal care; **Lee Wilner**, 5800+ hours, ARNHA Board and special events; **Roberta Wilner**, 9000+ hours, receptionist, ARNHA Board, special events. ■

The Rewards of Reinforced Outdoor, Hands-on Learning

by Sabreena Kasbati

Imagine being handed a replica Maidu artifact and using deductive reasoning to estimate its purpose, the materials it is crafted from, and who in the village would have used this artifact to better understand a culture.

Amanda Lee's 3rd grade students from St. Mary Elementary School participated in this activity in November 2011 during a Nisenan Maidu-focused Nature Area Tour at the Effie Yeaw Nature Center. They were guided through the Maidu replica village and on a nature walk to observe and discuss the Maidu's natural resources and uses.

In their classroom before they came to the Effie Yeaw Nature Center, the class learned about the diversity of native groups and cultures. Students researched and recorded their knowledge in a hand-crafted book.

When they came to the Effie Yeaw Nature Center and observed and explored the actual space occupied by local natives, the Maidu, the experience reinforced knowledge, taught new knowledge, and provided perspective about the culture and how it relates to us today.

Back in the classroom after their field trip, students reinforced their field trip experience with an intense Maidu project: building a miniature oak and river landscape including native plants, native animals, a replica Maidu village, and other Maidu resources.

Each project embodies in a powerful way new learning developed by the combination of classroom and outdoors instruction.

Sabreena Kasbati, a Naturalist at Effie Yeaw Nature Center, holds a B.S. in Biological Sciences from the University of California at Irvine. She joined us one year ago bringing with her eight years of informal science education focusing on marine, aquatic, and environmental sciences. ■



Dakota Jones, a student in Amanda Lee's 3rd grade class at St Mary's Elementary School, studies tule shelter at Effie Yeaw Nature Center.

Photo by Kari Bauer



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- Soroptimist International of
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- Soroptimist International of
Greater Sacramento
- Laurence Stearns
- Dan Steele & Laurie Litman
- Patty & John Stock
- United Way
- Dee Warencia
- Betsy & Fred Weiland
- Western Health Advantage
- Aimee White
- Marilyn Wolf
- Murray Smith Work
- Ruth Younger

Safeguarding Our Oaks

Some oak trees in the 77-acre Effie Yeaw Nature Preserve are dying, others are not regenerating. And all are at risk from wildfire danger from dry grasses and such non-native plants as yellow star thistle.

Those are some of the reasons ARNHA Associate Board member Connie Wade, a professional ecologist, has placed preservation of oaks on a preliminary Action Plan of the newly-created Preserve Management Committee that she heads.

In a presentation in the Effie Yeaw Nature Center's Distinguished Speaker Series on March 16, Connie pointed out that oak woodlands are recognized in state legislation as "vital statewide resources, providing crucial wildlife habitat." Another state law requires that county environmental reviews of a project must determine whether that project may result in a conversion of oak woodlands that will have a significant impact on the environment. If so, mitigation measures must be implemented.

Besides striving to preserve our native open space areas, Connie stressed the importance of good oak stewardship in home gardens and landscaping. Such practices include planting local native species, planting acorns, and protecting oak seedlings and saplings.

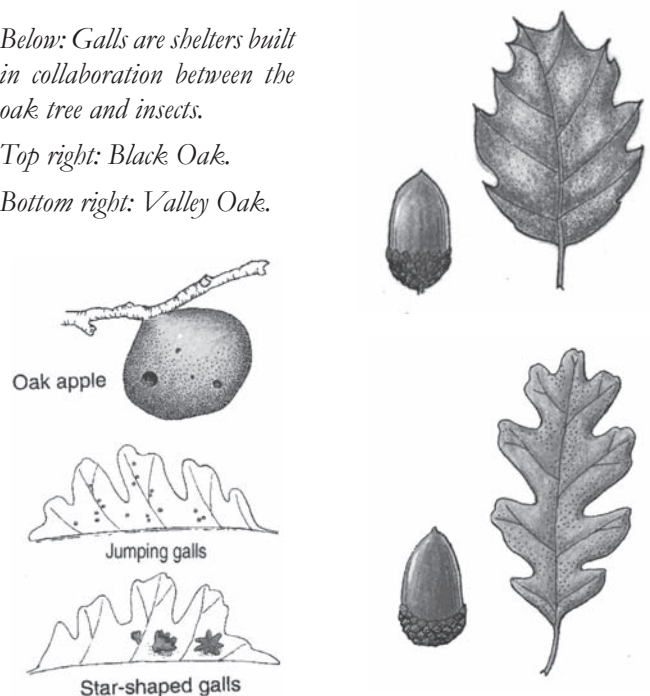
More specifically, she advised:

- Do not excavate within root protection zones.
- Do not compact soil within root protection zones.
- Do not raise or lower grade over existing roots of a tree.
- Leave natural litter (leaves) under oaks.
- Irrigate oak trees only as a supplement during extended drought.
- Do not plant non-local oak trees, which may hybridize with local oak trees, possibly resulting in loss of local genetic material. ■

Below: Galls are shelters built in collaboration between the oak tree and insects.

Top right: Black Oak.

Bottom right: Valley Oak.



On Coping With Rattlesnakes

By Paul Tebbel

Effie Yeaw Nature Center Executive Director Paul Tebbel recognized a teachable moment last October when Alex McHardy was bitten by a rattlesnake. In the following article he offers advice on avoiding a rattlesnake bite and what to do if you encounter a rattlesnake victim.

Rattlesnakes do not want to bite you. They go out of their way to warn you of their presence by curling up and then rattling. Always give a rattlesnake or any snake that looks like a rattler a wide berth. Some bites have occurred when the victim was extending a hand towards something on the ground like a lizard or a flower. Avoid areas where snakes may be hiding, such as under rocks and logs.

- Even though most snakes are not poisonous, avoid picking up or playing with any snake unless you have been properly trained.
- If you hike often, consider buying a snake bite kit (available from hiking supply stores). Do not use older snake bite kits, such as those containing razor blades and suction bulbs.
- Don't provoke a snake. That is when many serious snake bites occur.
- Tap ahead of you with a walking stick before entering an area where you can't see your feet. Snakes will try to avoid you if given enough warning.
- When hiking in an area known to have snakes, wear long pants and boots if possible.

But sometimes bites happen when you don't even see the snake. If you encounter someone bitten by a snake, **call 911 if you think it might be a rattlesnake bite.**

- Keep the person calm, offering reassurance that bites can be effectively treated in an emergency room. Restrict movement, and keep the affected area below heart level to reduce the flow of venom.
- Remove any rings or constricting items because the affected area may swell. Create a loose splint to help restrict movement of the area.
- If the area of the bite begins to swell and change color, the snake was probably poisonous.
- Monitor the person's vital signs-- temperature, pulse, rate of breathing, and blood pressure -- if possible. If there are signs of shock (such as paleness), lay the person flat, raise the feet about a foot, and cover the person with a blanket. ■

Ask a Naturalist . . .

Frequently asked question at the Effie Yeaw Nature Center

Q. Why are the owls on display awake? They are nocturnal, so shouldn't they be sleeping?

A. EYNC Lead Naturalist Shawna L. Protze: "Nocturnal" means active at night, not "active just at night." The definition does not imply that nocturnal animals cannot be awake during the day; they can. But in nature, nocturnal animals have to compete for food with the daytime animals, so sleeping and awaiting "their time" is more efficient for them. In captivity, owls are often fed during the day and interact with daytime animals – people. It does not harm the owls to be awake during the day, and their eyesight is not weakened by daylight. They adjust, so, like a human with a middle of the night or "graveyard shift," they have a daytime or "display bird shift." ■

KIWANIS CLUB 10TH ANNUAL "Taste" of Carmichael

Saturday, May 19
4:30-8:00 p.m.

La Sierra Community Center
Tickets are \$35 and limited on a first-come, first-served basis
The Nature Center benefits from tickets sold at the Nature Center. You must buy them in person at the Nature Center, or by mail.
Checks made out to:
Kiwanis Club of Carmichael

GALA TICKETS ON SALE NOW Painting where the Wild Things Are

Saturday, June 9
Reservations are \$40 per person (First 150 reservations receive a signed copy of Susan Skinner's book "Carmichael; Americana on the Move" - one per household).

SUMMER CONCERT SERIES Effie Yeaw Nature Center

Concert Jazz Pianist Tammy Hall and friends will perform on Friday, June 22. Jazz/Pop Artist Ricky Berger will appear on Friday, July 20. You can purchase tickets individually, or package them together. Seating is limited.

FREE EDUCATIONAL PROGRAMS At Effie Yeaw Nature Center

SATURDAYS AT 10:30 A.M.
SUNDAYS AT 1:30 P.M.
Space is limited and first-come, first-served. You can pre-register or register on-site the day of the program. For more information on these programs See our website at sacnaturecenter.net or telephone (916) 489-4918

ARNHA Membership Reaches Thousand Mark

A round of applause greeted the news at the winter Volunteer Appreciation Party February 9 that ARNHA membership had topped the 1,000 mark. Membership Chair Lee Wilner says this was an increase of 210 since April, 2010, shortly before the County turned over management of the Effie Yeaw Nature Center to ARNHA. “The takeover emphasized the need for more members to continue running the Nature Center,” Lee said. “I hope we can continue the increase.”

Young at Heart Program Reaches Out to Seniors

Check out Effie Yeaw Nature Center’s **Young at Heart** program! This program is designed for seniors—both the active and the “not so active.” The Effie Yeaw Nature Center Staff will come to your facility: senior centers, retirement community centers, assisted living homes, and more.

A naturalist will bring raptors, snakes, or Maidu artifacts, and do an hour-long presentation to educate and entertain your group! Or, even better, you may bring your group here for a customized program that can include owls, hawks, or snakes, Maidu cultural heritage, or ethno-botany walks. We also offer nature based power-point programs on raptors, reptiles, the gold rush, and more, which can be followed by nature hikes of any length (10 minutes to an hour). *This is a perfect gift for those folks who have everything they need, but would enjoy visiting with an owl up close, or taking a slow paced walk along our enchanting trails.*

If you are interested in **sponsoring** one of our **Young at Heart** programs for a senior center or assisted care facility of your choosing, call Denise at the Effie Yeaw Nature Center and discuss the many possibilities, 489-4918 x234!

See how he runs

A yellowish-brown object explodes out of the long grass and, like a golf ball bouncing down a paved road, heads for the nearby levee. Its 10-foot bounds carry it over the top of the embankment, just as a prowling hound picks up its scent and circles in frustration.

We have just witnessed the principal means of survival of the valley’s black-tailed hare, or jackrabbit as it is better known, thanks to its jackass-like ears. Its dun-colored fur proves an effective camouflage as it rests in the tall grass, but it depends on its powerful hind legs to carry it to safety when danger threatens.

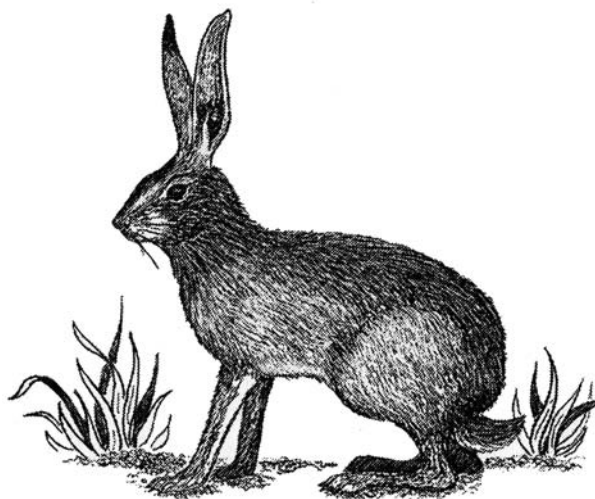
“Jack” is a good example of evolution in action. In the long ago, a mutation, or sudden change in a rabbit’s biological makeup, caused it to develop longer, stronger hind legs. This fortuitous genetic trait was passed along to descendants, giving them the means of outdistancing such enemies as hawks, owls, eagles, and gray foxes.

Meanwhile, shorter-legged rabbits died off or moved to a more congenial environment.

This natural selection process was good for jackrabbits, not so good for farmers. They resent the jackrabbit’s appetite for alfalfa, grains, and other crops and take appropriate steps to reduce the population. But elsewhere the balance of nature is tilted in the jackrabbits’s favor as sheepmen successfully campaign to eliminate the coyote, another of the jackrabbit’s natural enemies,

Aesop may have been right—slow and steady wins the race for the tortoise. But the black-tailed hare’s speed over the short haul, along with its reputed ability to produce young every six weeks, almost guarantee it will never become an endangered species.

From An American River Journal, published by ARNHA. It features drawings by ARNHA co-founder Jo Glasson Smith and nature essays by Peter Hayes, retired newspaper editor and ARNHA associate board member. The book is available for \$9.75 at the Effie Yeaw Nature Center, ARNHA.org, and selected stores. Visit ARNHA.org “Podcasts” to hear readings of the essays by the author.



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(916) 489-4918 • www.arnha.org
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ARNHA Calendar of Events

- **Lewis Kemper on Outdoor Photography**
Friday, May 18, 6:30 pm to 8:30 pm
Effie Yeaw Nature Center, see SacNatureCenter.net for details
- **Painting Where the Wild Things Are**
Saturday, June 9, 4 pm to 8 pm
Effie Yeaw Nature Center
- **Kate Marden on Falconry, Sport of Kings**
Friday, June 15, 6:30 pm to 7:45 pm
Effie Yeaw Nature Center, see SacNatureCenter.net for details
- **Summer Nature Camps**
June 18 to August 3
Effie Yeaw Nature Center, see SacNatureCenter.net for details
- **Summer Concert Series**
 - **Concert Jazz Pianist Tammy Hall**
June 22, 7 pm to 8:30 pm • \$25 per person
 - **Jazz/Pop Artist Ricky Berger**
July 20, 7 pm to 8:30 pm • \$20 per person
Effie Yeaw Nature Center, see SacNatureCenter.net for details

New Members

- Judy Lynn Baker
- Sarah Ball
- Karyl & Tom Balsbaugh
- Will & Laura Barrett
- Amy Becker
- Carole Bender
- Sharon Bogart
- Erica Booth
- Sharon Boyd-Morales
- Stephanie Brain
- Dennis & Meg Bryerton
- Jini Castillo
- Marisa Cheung
- Nancy Ciraulo
- Luanne Clayton
- Lewis & Penny Clement
- Amy Cusack
- Anna Dalekorey
- Paul Dauer
- Mary & Kirk Davies
- Dawn Dayce
- Toni Fairall
- Judy Feldman
- Jacquelyn "Jacqui" Fogle
- Mihoyo Fuji
- Nancy Gervais
- Katherine & Eli Groppo
- Harold Harrington
- Daniel Hawley
- Greg Heise
- Jamie Heller
- Sharon Helmar
- Susan Herman
- Melissa Hirth
- Piper Medical-Inventech
- Natalio Karovaymayo
- Marj Koerber
- Margaret Larson
- Kelly Mahoney
- John & Anne Margels
- Danielle McCarthy
- Jeremy Meehan
- Darlynn Meguiar
- Mary Misque
- Shannon Mooney
- Julie Morris
- Lisa Murawski
- James Pinchott
- Jessie Quinn
- Palinee Ransi
- Kimberley Remen
- Patty Richardson
- Beth Robbins & Jeff Jonas
- Theresa Robinson
- Margaret & John Rogers
- Jim Sabraw
- Alison & Rob Sawyer
- Kathy Schulz
- Sandra Smoley
- Jacquie A. Staley
- Susie Stefanic
- Robin Taylor & Jeff Swatt
- Larie Corren Ur
- Anne Webster
- John Westlund
- Karin Winters
- Dr. Murray Smith Work
- Tommy H. Wright
- Jocelyn Wu
- Trista A. Ybarra
- Felicia Yu



The new 4th edition of Biking and Hiking the American River Parkway is available at the Discovery Shop inside the Effie Yeaw Nature Center, and selected local bookstores, for \$14.95.

www.arnha.org

Check out EYNC Programs at www.SacNatureCenter.net