



## Survival Strategies for Our Valley's Native Plants

by Michael Plotkin

The mild winters of the Central Valley are an especially attractive feature of our Mediterranean climate. No sleet to drive through or snow to shovel. Instead, for us valley residents, the more difficult time of the year is summer when the reigning weather is hot, cloudless, and dry.

This sort of climate presents a major problem for the flora of our region, as the two major factors necessary for a good life—warmth and water—are out of phase. An astounding variety of unique organisms has evolved to cope with this difficult environment—and it is worth noting that Western Civilization, in part, has flourished in exactly this environment.

Plant life in California's Central Valley generally follows one of three strategies to survive our climate: some plants survive summer as seeds. These germinate in winter; and whenever temperatures are high enough, the plants grow. Then in spring, they reproduce quickly while the ground still retains sufficient moisture.

A somewhat less frantic strategy involves plants that might grow throughout the winter and spring but, come summer, do not die. Instead, they remain active as long as possible and then go dormant to survive. Some even drop their leaves, like plants in temperate climates do in fall. These plants often possess adaptations to allow them to function in hot, dry conditions, such as small leathery leaves, deep roots, underground food

and water storage structures, reflective hairs or waxy coatings, and numerous biochemical tricks. Many of these plants are shrubby, but some die back to the ground and persist until they can re-sprout when the rains return.

Some lucky plants have hit on an entirely different

strategy. They simply evade the drought. Many residents of the American River Parkway do just that by virtue of their habitat. The River provides a perennial water source, a milder microclimate, and fertile alluvial soils. So when the rest of the valley floor resembles a rock hard clay oven and hasn't seen a drop of rain for months, the plants along the American River are as happy as plants high in the mountains. In the pre-colonial era, trees in the Central Valley were found mostly in the gallery forests along the major rivers, which are like ribbons of montane vegetation rolled out onto the valley floor.

see **Survival** on page 3

## For a New Adventure, Adopt a Nature Center Animal

by Peter Hayes

*Animals are such agreeable friends . . . They ask no questions, they pass no criticism."*  
--George Eliot

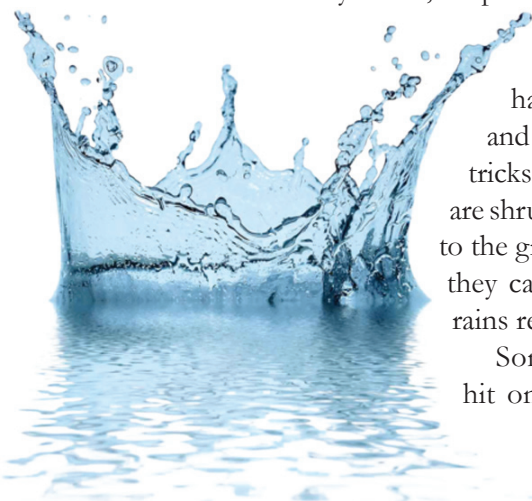
Most people would agree that one of the highlights of a visit to the Effie Yeaw Nature Center is an eyeball-to-eyeball view of Tanner, the Red-tailed Hawk; Echo, the Great Horned Owl; Clem, the Western Pond Turtle; or any of seven or eight other animals on display. These educational ambassadors are absolutely essential to the effectiveness of the Nature Center's educational programs.

Altogether, the Center cares for five raptors: Saw-whet Owl, Great Horned Owl, Red-shouldered Hawk, Red-tailed Hawk, and American Kestrel;

Nine amphibians: Western Toads, Pacific Chorus Frogs, and California Newts;

Fourteen reptiles: Northern Pacific Rattlesnake, California Kingsnake, Gopher Snake, Gilbert's Skink, Western Fence Lizard, Western Pond Turtle, and Valley Garter Snake.

see **Adopt** on page 4



# President's Message

Dear ARNHA Members,

As I compose this message to you in mid-January, the weather is spring-like . . . birds are chirping, plants are budding . . . providing a unique opportunity to enjoy the Nature Center in mid-winter *sans* rainfall. Let's hope by the time this edition of *The Acorn* reaches you that the weather gods will have provided us with more rainfall!

As we approach spring, activity is gearing up. The sounds of students from classrooms throughout the region fill the air as teachers augment classroom natural science education with field study at the Nature Center. Have you purchased your tickets for the annual ARNHA Bird and Breakfast? After a successful introduction of a second day of Bird and Breakfast last year we're offering a choice of Saturday March 22, or Sunday, March 23, for some bird watching with the excellent leaders from Sacramento Audubon and a sumptuous breakfast. This event is always a sell-out, so I encourage you to register quickly.

And while you're updating your calendar with spring events, please plan on attending ARNHA's annual Painting Where the Wild Things Are art gala scheduled for Saturday, May 31. I'm pleased to announce that former Sacramento County Supervisor Muriel Johnson will be this year's Honorary Chair and Elliot Fouts, CEO of Elliott Fouts Gallery in mid-town, will serve as art juror.

I am excited to share with you the kick-off of a new adult natural science education program that ARNHA will be offering at the Nature Center. For over a year, we have been positioning ourselves to provide Sacramento region residents the opportunity to participate in the University of California Naturalist Program. The 40-hour lecture and field study course includes ecology, geology, plant communities, wildlife, and other related subjects leading to a certification. For those of you who want to know more about the natural world of the Sacramento region or who want the benefit of natural science coursework taught by subject matter experts to enhance your abilities as an employee, volunteer, or potential volunteer, this program is for you! *See page 7 for details.*

ARNHA will be joining organizations throughout the state of California in offering this program. For additional information about this statewide effort, visit [www.calnat.ucanr.edu/](http://www.calnat.ucanr.edu/). For information about ARNHA's program, contact the Nature Center at 489-4918 or visit [www.SacNatureCenter.net](http://www.SacNatureCenter.net). We are looking forward to seeing you this spring.

Regards,



**We're on Facebook!** Next time you log in, be sure to "like" us so your newsfeed contains our posts.

You'll love "Pete the Parkway Coyote," a fictional character who prowls the Parkway, ambassador for the Effie Yeaw Nature Center and the American River Natural History Association. He'll keep you informed of their activities from the wild animal perspective. The American River Natural History Association (ARNHA) page shares important information, such as news and events as well as linking you to the Effie Yeaw and ARNHA websites and calendars. ■

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#### ARNHA

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## Survival, continued from page 1

One unique and spectacular example of the first strategy—reproduce fast, die young, known among botanists and gardeners as an annual life cycle—is the vernal pool flora. At Mather Field, Rancho Seco Howard Ranch Trail, Phoenix Field, Jepson Prairie, and other places, you can see the remnants of this once widespread ecosystem. Certain soils of the Valley do not allow water to percolate. Thus, winter rains accumulate in small pools. Specially adapted vernal pool plants inhabit these pools, often germinating and growing underwater initially. As the pool dries, successive rings of vegetation often form. In our local pools, two of the showiest plants

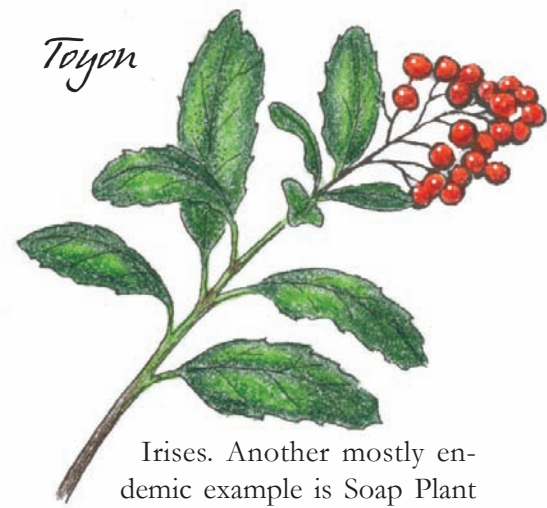


are Two-Horned Downingia (*Downingia bicornuta*), which forms masses of blue and white or yellow flowers resembling lobelia, and Meadowfoam (*Limnanthes*), which is generally white, sometimes with pink veins. If you have a garden, you can buy “poached-egg” plant seeds, actually a meadowfoam (*Limnanthes douglasii* subsp. *douglasii*) which bear white flowers with a bright yellow center. They will grow anywhere that has moist conditions, even in poor soil, through the spring and persist into summer. Plant as early as possible for the longest bloom period. The uplands around the vernal pools can also flower

and sometimes become a carpet of gold when Goldfields (*Lasthenia californica*) and Yellow Carpet (*Blennospermananum*) bloom.

As far as those plants that tough out the hot dry summers, a diversity of adaptations are on display. Exceptional drought tolerance can be achieved by modifying one’s leaves to be thick, small, and leathery, and covered with a waterproof cuticle. The quintessential tough leathery-leaved plant in our flora is Manzanita, the genus *Arctostaphylos* with many species endemic to California. Other such plants include both scrub and Interior Live Oaks (*Quercus wislizenii*), members of the buckthorn family *Rhamnaceae* like Buck Brush (*Ceanothus cuneatus*), Yerba Santa or Mountain Balm (*Eriodictyon californicum*), Toyon or Christmas Berry (*Heteromeles arbutifolia*) and many others. These can be observed in the foothill chaparral as well as in drier places along the lower elevations of the American River Parkway.

Many monocot plants use the third method of survival. They evolved underground structures, namely, bulbs, corms, tubers, and fleshy rhizomes, which store food and water for the lean times. Examples include our much-loved Mariposa Lilies, Brodiaeas, and



Irises. Another mostly endemic example is Soap Plant (*Chlorogalum*), which has bulbs with numerous fibers that native people turned into brushes. These plants will provide elegant strappy green leaves and small white flowers on a tall stalk in summer. Many of these native species are available for gardeners (check native plant nurseries or seed companies). Though perhaps not as charismatic as their non-native cousins, native plants can provide an excellent and exotic alternative to the common non-native daffodils and freesias we so often plant instead.

The drought evaders found along the river corridor typically grow in wetter places. Standing along the American River, you are likely to be surrounded by vegetation familiar to someone from the Eastern U.S. or anywhere in the mountains of North America. These plants generally behave as if they did not live in a Mediterranean climate; they have larger less drought resistant leaves, which they drop in the fall; they tolerate wet soil and do not tolerate dry clay well. These include mostly trees like the Valley Oak (*Quercus lobata*), Maples (*Acer*), California Box Elder (*Acer californicum*), Willows (*Salix*), Fremont Cottonwoods (*Populus fremontii*), the diminutive but fetching Western Redbud (*Cercis occidentalis*), Dogwoods (*Cornus*), the California or Prickly Rose (*Rosa californica*) and California Blackberries (*Rubus ursinus*). An unfortunate invader has also moved into the river corridor—the tree of heaven (*Ailanthus altissima*), which is the tree of

*continued next page*

*Survival, continued from previous one*

the novel *A Tree Grows in Brooklyn*—and displaces native plants.

Since many of us water our gardens regularly, our landscapes are suitable for the drought-evading plants of the Parkway. Valley Oaks make a particularly beautiful shade tree and are rather fast growing. Since they are winter deciduous, they provide shade in the summer but let the sun through in the winter. Western Redbud is a graceful small tree with edible purplish flowers followed by ornamental red seed pods. The leaves are an unusual heart-shape.

As you enjoy the spring and summer vegetation in the Central Valley and foothills, think about which plants might accent your home as they do in the wild in our bioregion. Native plants are always a wonderful addition to any garden. Annual, drought-tolerant, or drought-evading—they can all enhance the beauty, wildlife value, and richness of your personal landscape.

*Adopt, continued from page one*

It should be no surprise that none of these critters is self-supporting. They take a lot of care under the leadership of Animal Care Supervisor Shawna Protze, Animal Caretakers JoLynn Jarrett and Lara Maddox, and a host of volunteers led by Erin Landry.

And it costs money, about \$30,000 annually, for food, veterinary care, state and federal permits, housing and equipment, and experienced wild animal caretakers. These critters don't eat kibble!

To help underwrite the costs, the center offers an "Adopt an Animal" program, or as Development Director Betty Cooper says, "We like to call them sponsorships so that people understand that they are helping with the care and feeding of the animals."

Shawna says, "the non-releasable animals come from a variety of backgrounds with sad stories, most of which include debilitating injuries or being raised illegally. The animals are first cared for by local rescue organizations and veterinary clinics and declared unable to survive in the wild before they can be transferred legally as an educational animal to a permanent home at the Effie Yeaw Nature Center."

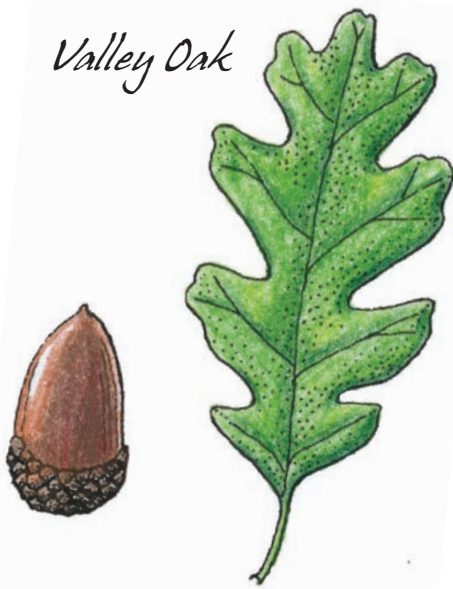
The donation levels and rewards for prospective "adoptive parents are as follows (next column):

- **\$25**—You receive a Nature Center decal, photo, and personal history of your animal, natural history of the species, and an adoption certificate.
- **\$50**—You receive all the above benefits, plus a nature Center finger puppet
- **\$100**—You receive all the above benefits, plus ARNHA's new full-color *Outdoor World of the Sacramento Region* field guide.
- **\$250**—You receive all the above benefits, plus a framed personal photo with you and your adopted animal.

To adopt an animal and complete donor information, visit the EffieYeaw Nature website, [sacnature-center.net](http://sacnature-center.net).

*Peter Hayes is co-chair of ARNHA's Media/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 Board of Supervisors. ■*

Valley Oak



*Michael Plotkin of Davis is Chair of and Associate Professor in the Department of Life Sciences, Mt. San Jacinto College, San Jacinto, CA. He is a frequent contributor to The Acorn.*

*Illustrations are from the 2013 edition of The Outdoor World of the Sacramento Region, an ARNHA publication. ■*



Photo by Karri Banner

# Nature Photography Helps Ease Stress

by Peter Hayes

Lon Yarbrough is a nature photographer who says his work helps him avoid burnout in his job as an R.N. in the critical care recovery room at Kaiser Hospital South. That's also fortunate for the Effie Yeaw Nature Center because his striking photos and sound recordings of birds currently grace our newly refurbished "Salute to Songbirds" exhibit.

The banners suspended from the ceiling near the Exhibit Room entrance feature Lon's photographs of a House Wren, Ruby-crowned Kinglet, House Finch, Western Bluebird, and a pair of Bushtits. The House Wren photo also decorates another large banner announcing the exhibit, mounted in front of the Nature Center.

Sounds of songbirds float continuously through the Exhibit Room, recordings Lon made with a stereo microphone during a Cornell Lab of Ornithology workshop in the Sierra. He also provided the photo announcing the Bird and Breakfast fundraiser last

March. Many more examples of his work are found on his website, NaturalMedia.us

"He is quite talented and obviously a patient photographer to get the candid shots he has let us use," says EYNC Past Director Marilee Flannery, who created and restored the songbird exhibit.

Lon, who wears his graying hair in a ponytail, says he used to read poetry in local coffee houses with his daughter Shanti. As his hospital work became more stressful, he would go down to the river and start watching and photographing birds.

"I could feel the difference after work," he says. "I could walk more gently, with a lighter spirit. My goal now is to help remember nature and bring the natural habitats into unnatural habitats."

Lon also makes beautiful photos and videos of Sandhill Cranes and, in fact, was selected as keynote speaker at last November's Lodi Sandhill Crane



Lon Yarbrough photo by Kari Bauer

Festival, where his crane photos were featured on posters and T-shirts.

But perhaps the most spectacular example of his work at EYNC is a collage of five photos of a female Great Horned Owl and three fledglings mounted on mirror-like aluminum. Titled "Hoo-Dat," it's on display on a wall of the Jo Smith Room of the Nature Center Assembly Building. ■

## Ask a Naturalist

Q: Why are there so many signs saying, "Stay on the Trail"?

A. EYNC Volunteer Coordinator Jamie Washington: "This is not only a nature study area; it is a safe habitat for animals of all sizes. Insects, snakes, toads, and caterpillars are some of the smaller ones. Coyote and deer are some of the larger ones.

"Because, for the most part, people stay on the trails, these animals feel safe in the "off trail" areas of the preserve where they can browse, hunt, sleep, and care for their young. When visitors go off trail, they are invading the homes of these creatures who then do not feel as safe. If they don't feel safe, they will go elsewhere and we won't be able to see and study them like we do now!

"And don't forget the plants that are trampled when you walk off-trail. Crushed plants damage both the food sources and potential shelter plants for animals of all sizes, including ground nesting birds, like the California Quail, and small reptiles.

"There is also the safety factor for our visitors—it's harder to see the rattlesnakes when you are walking off-trail, and if you go off-trail you are more likely to go home with a hitchhiking tick or two."



Photo by Kari Bauer

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- Carolyn & David Woodruff
- Marion & John Woods
- Bill & Carol Yeats
- Ruth Younger

*Thank  
you!*

# Yellow Star Thistle, a Nasty Weed

by Peter Hayes

Effie Yeaw Nature Center Executive Director Paul Tebbel is looking forward to round four in the annual battle against Yellow Star Thistle, the noxious weed that covers significant sections of the 100-acre Nature Study Area (NSA).

Yellow Star Thistle (YST) is a mean, thorny annual, native to Turkey, Greece, Italy, and Spain, thus thriving in California's Mediterranean climate. Its gray-green stalks and yellow flower heads cover 15 million acres in California so densely, says Paul, that nothing else grows through it.



"It's tough to walk through," he said. "It displaces native plants. The beauty and diversity of the Nature Study Area is ruined, and it becomes a 'Yellow Star Thistle Study area'."

When Paul took over the nature center job in 2011, he found that the meadow to the southwest of the nature center was a sea of YST plants three feet tall and solid from edge to edge. Year after year, he has recruited a volunteer with a tractor, volunteers with shovels and "weed-whackers" (trimmers with a monofilament line instead of blade), and probation crews from the County Sheriff's Department to cut down Yellow Star Thistle.

The seeds last up to eight years in the soil, so removal must be repeated every year. Burning is not feasible because of the close proximity of the Center to homes. A certain beetle is a thistle-killer but is expensive. As for chemicals, Paul says "we're not going there."

One of the volunteers, ARNHA Board Member Bud Banker, says, "It's rewarding to see how the weed whacker knocks over a star thistle at its base."

Paul plans to seek as many as 90 Sheriff's probationers to resume the attack this year during a mid-June to mid-July "window" when most of the plant's flowering has not yet gone to seed. After the plants have been removed, they will be disposed of in a dumpster to prevent them from reseeding and coming back next year.

"We've seen significant improvement in the star thistle problem since the first year," Paul says. "But we'll never really eradicate it, just control it. Our next challenge is determining what could be planted or seeded to replace the removed YST." ■



The first all color edition of  
**The Outdoor World of the Sacramento Region**  
with 550 illustrated species  
is available at the Discovery Shop  
inside the Effie Yeaw Nature Center,  
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for \$16.95.  
or online at [www.arnha.org](http://www.arnha.org)

## ARNHA Teams with UC and Nature Bowl

### New Naturalist Program Offered

The Effie Yeaw Nature Center will offer a new UC Naturalist Certification program. The 40-hour, eight-week course starts on April 22 and meets on eight Tuesday evenings from 5 p.m. to 9 p.m. until June 10. Two field days on Sunday, May 3, and Saturday, May 17, from 8 a.m. to noon, are included. The registration fee is \$350 per person until April 1. On April 2 or later, tuition is \$390 per person.

The course will cover interpretation, geology, water, plants, and animals, among other topics.

Watch your e-mails and the Effie Yeaw Nature Center website ([www.sacnaturecenter.net](http://www.sacnaturecenter.net)) for more information.

### Nature Bowl Teams in Training

Meanwhile, teams of students from schools recruited by Effie Yeaw Nature Center staff and volunteers will join with those signed up by the Nimbus Fish Hatchery in Nature Bowl classes for educating Sacramento area youth about the science of nature and environmental stewardship. Finals for the team competition for 3rd through 6th grade students will be held at Sacramento State University May 15. ■

## Volunteers Feted

Over 85 Effie Yeaw Nature Center and ARNHA volunteers attended the winter volunteer appreciation party at EYNC on Thursday Evening, February 6. Among the many honorees were the following who each contributed more than 1000 hours: Marilyn Escobar, Receptionist and Special Events; Gregg Hutchison, Handyman and Special Events; Beverly Lewis, Receptionist and Special Events; and Larry Washington, ARNHA Board Member. ■

# Urban Nature Project creates “Magical Nature Moments”

By Margaret Leavitt

If you raised your bid paddle during the Raise-the-Paddle portion of the Art Gala in June 2013, you were part of a group that raised \$16,000 for the Urban Nature Project (UNP) in about 10 minutes. However, in spite of your impressive generosity and desire to help, how much do you really know about the Urban Nature Project, beyond the brief introduction that Effie Yeaw Nature Center Director Paul Tebbel gave? Here’s more information about the program, one that exemplifies, like no other, Effie Yeaw Nature Center’s goal of bringing children to nature and nature to children.

Research has shown that connections to nature are an important part of a child’s development and can have positive impacts on society as well. Fostering excitement for non-school science learning may positively impact academic achievement, while spending time outdoors can prevent potential childhood problems, such as obesity.

*EYNC Naturalist Melanie DuBoce helps children discover secrets of nature.*



Photo by Kari Bauer

But not all children attend schools that can afford outdoor, hands-on science programs, such as the school field trips that EYNC conducts most school days. And their families may not be aware of the existence of EYNC, let alone its free weekend programs for families.

To reach these children and their families, EYNC staff started the Urban Nature Project about ten years ago, at a time when EYNC was still administered by Sacramento County. The staff sought grants from local organizations, accepting grants and donations through the American River Natural History Association, to fund a program that would bring students from “qualifying schools” to EYNC for the same nature programs that other students attend.

## The following organizations are UNP contributors:

Breakfast Optimist Club  
Sacramento

GenCorp Foundation

Kinder Morgan Foundation

Loveall Foundation

Save the American River  
Association

Sacramento Audubon Society

And the very generous support of individual donors through the Raise-the-Paddle event at the Gala.

A “qualifying school” is a school within Sacramento County serving children between Kindergarten and 6<sup>th</sup> grade that

has 50% or more of its students eligible for the free or reduced-price meal program. Also eligible are schools that serve special-needs children, such as the Mustard Seed School for homeless children.

EYNC Naturalist Brena Seck is in charge of the Urban Nature Project, which starts with outreach. Because many qualifying schools aren’t aware of the UNP, Brena, in addition to her other naturalist duties, personally contacts Sacramento County qualifying schools and underserved youth organizations to let them know about the UNP, which allows each qualifying school to book programs, without cost, for up to four classes.

“The principals and teachers who schedule UNP programs are always very grateful for the opportunity to have an EYNC program,” says Brena. “Many of the teachers have never been to EYNC, and some have never even heard of EYNC, making a UNP program a wonderful introduction.”

Although the programs themselves are free, the cost of getting the students to EYNC may present an overwhelming obstacle for some schools. For those schools that truly have no alternative, a separate grant is available to assist with transportation. But, Brena notes, most

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*continued from previous page*

schools are able to find some way to transport the students.

If eligible students can't get to nature, EYNC can also bring nature to them, in the form of classroom programs, including participation by EYNC's animal ambassadors. EYNC nature tours and classroom visits are scheduled in September and from November through February, months that tend to be less booked by paying schools. In all other respects the programs are exactly the same as those provided to paying schools, with the program led by an EYNC naturalist assisted by trained volunteer docents.

Qualifying schools may participate every other year, although Brena reports that some schools that have participated in the UNP have found them so valuable that they have contacted her

the following year to arrange for paid programs.

As of early January 2014, Brena had reached out to all the "qualifying schools," with 32 schools booking a total of 112 programs. Each program serves an average of 30 students for a total of about 3,360 students experiencing nature in a way that would not otherwise be available to them. This year, generous grants and donations from foundations, organizations, and individuals, including the very enthusiastic response to the Raise-a-Paddle effort, made it possible to offer UNP programs to every school that wanted to book them. [See sidebar for a list of funding sources]

Over the years, teachers have written to EYNC to say that their students gained a new awareness and appreciation of the natural world after partici-

pating in a UNP program. EYNC staff has noted that some of the children who participate in a UNP program return to EYNC on weekends with their families. Brena and other EYNC staff and volunteers have benefitted from their involvement with the UNP as well. "I am proud," says Brena, "to help bring 'magical nature moments' to the children who need them the most."

So the next time you have the chance to "Raise-the-Paddle" or otherwise support the Urban Nature Project, do so with the knowledge of the very important role this program plays in the lives of Sacramento County students and in our community at large.

*Margaret Leavitt is a docent and volunteer receptionist at EYNC. ■*



*Photos by Kari Bauer*

*Echo the owl inspires searching for the perfect feather.*



## Camps Build Connection to Nature

Winter Nature Camps for children ages 5 to 12 were held at EYNC over the school winter holidays. Crafts, hiking, stories, and getting up close and personal with EYNC's animal ambassadors were just some of the activities during camp. Themes included art and nature, astronomy, and night hunters.

Spring camps will be held April 14 to 17. More information is available on the EYNC website, [www.SacNatureCenter.net](http://www.SacNatureCenter.net) or call EYNC at (916) 489-4918 for information and to register.



## Holiday Sale Draws a Crowd

ARNHA books, Lucuma hand-carved gourd ornaments, birdhouses, and boxes were best sellers at the annual Holiday Sale at the Effie Yeaw Nature Center December 7.

Melanie DuBoce, store manager, said close to 200 people circulated among sale tables in the lobby, exhibit room, and back porch.

“We sold all 60 gourd ornaments, all 4 boxes, and 15 of the 16 birdhouses. 68 books were sold. About 85 percent of items ordered especially for the holiday sale were sold.

“Vendors’ sales were higher than they were the past three years, and they were able to make a generous donation to the Nature Center.”

Vendors included painter Molly Keller of the Media/Publications Committee, who hand-colored the more than 550 plants, birds, fungi, mammals, reptiles, fish, insects, and amphibians in the new edition of *The Outdoor World of the Sacramento Region*. ■

## BIRD AND BREAKFAST Set for March 22 and 23

The American River Natural History Association and Sacramento Audubon are teaming up to offer a special weekend of morning birding trips coupled with wonderful breakfast fare.

This event, held at the Effie Yeaw Nature Center, starts with Bird Walks guided by some of our best local birders. For weeks in advance of the Walks, these guides scout the Nature Study Area, so they will be able to point out nests and local rarities. After the walk, birders enjoy wonderful food, good coffee, and other fun to help raise money for the Effie Yeaw Nature Center. No extensive birding experience is necessary - this event caters to all levels and to families.

### **This year sessions are planned for both Saturday and Sunday.**

On Saturday, the Bird Walk, open to those 12 and older, will be approximately 90 minutes long, followed by the traditional casserole breakfast buffet provided by some of the best cooks among ARNHA Board members and Nature Center volunteers. Participants can also bid in a silent auction for attractive baskets, bird-related experiences, and a birding field guide signed by Roger Troy and Virginia Marie Peterson.

On Sunday, participants can choose to join either a Family Bird Walk, a one hour walk with children 6 or over welcome, or a longer, approximately 90-minute, Adult Bird Walk open to those ages 12 and above. The Sunday event features an excellent pancake breakfast prepared by the Carmichael Kiwanis. On Sunday, a nature-themed craft activity for children is planned.

This event often sells out, so advance registrations are essential. The cost is \$35 for ARNHA and Audubon members or \$40 for the general public. The registration rate for children aged 6 to 11 on the Sunday walk is \$8 for ARNHA and Audubon members or \$10 for the general public.

You can register online and get more information at [www.SacNatureCenter.net/birdandbreakfast14.html](http://www.SacNatureCenter.net/birdandbreakfast14.html). ■

*Below: Four boys examine a parasitic wasp during their bike at Effie Yeaw Nature Center. Right: Three boys are learning a tribal game of wagering during Maidu Day class at Effie Yeaw Nature Center.*

## EYNC SNAPSHOTS



Photos by Linda Thomas

## The American River Oral History Project Underway

ARNHA is exploring the potential for collecting oral histories of people who lived along the American River before the completion of Folsom Dam in 1955. The objective is to enhance understanding of the American River and the surrounding communities as they were in the early part of the last century.

The stories will be archived for future historic research by ARNHA and interested organizations for books, videos, and other education tools.

Step one is to identify individuals with stories to tell about life along the River before the dam, who are willing to participate in a recorded interview. Once a pool of individuals is identified, a program for interviewing and compiling the archives will be organized by ARNHA in cooperation with companion organizations. If you would like to participate, or know of someone you could suggest, please contact David Wade at 916 955-1117, or [dwade@wadeassociates.com](mailto:dwade@wadeassociates.com). ■

### April 5 for GARCUCU

Grab your gloves for the annual Spring Cleanup along the American River on April 5, 2014. Sponsored by the American River Parkway Foundation, the cleanup helps reduce trash that could pollute the American River. Ancil Hoffman Park is one of the main sites



for the cleanup which runs from 9:00 A.M. until noon. Participants should wear long pants and sturdy shoes. Water and snacks will be provided by the Foundation. To register for the cleanup, visit the Foundation's web site: [www.arpf.org/index.shtml](http://www.arpf.org/index.shtml). ■

The Great Egret, an all white bird, stands three feet tall and has a wingspan of four feet.

## Homebuilders

The earth tilts on its axis, and we in the northern hemisphere are beginning to face the sun more directly. The sun is rising closer to the east and setting to the west; and with the arrival of the vernal equinox, the length of the day will equal the length of the night, and spring will officially be here.

The climbing sun brings lengthening days, the greening of the trees, and the sparking of the reproductive drive in birds and mammals. Birds are staking out territories, courting, pairing, and beginning their ultimate engineering feat, building nests.

An American Robin's nest braced in the fork of a tree is a sturdy cup fashioned from grasses, leaves, or shreds of paper, with the outer wall plastered with mud and the inner cup lined with fine grasses.

A pair of tiny Bushtits have fashioned a remarkable hanging tube eight or nine inches long with a tiny hole near the top. It's made of leaves and other odds and ends held together with spider webbing.

Less ambitious are the Tree Swallows that have taken over a woodpecker hole in a cottonwood tree and lined the cavity with grass, leaves and feathers.

But the real happy-go-lucky nest-builder is the Killdeer that scrapes a small depression in the bare ground. She lays eggs colored to resemble nearby pebbles and stages her broken wing act if danger approaches.

Nests serve many purposes. They protect eggs and nestlings from rain, drifting sand, and hot sun, not to mention the eyes of predators. They provide the warmth that encourages incubation and rapid growth of the young. Finally, the nest satisfies a deep instinct of the bird to build a home, brood her eggs, and care for her young.

Since many more eggs and nestlings fall victim to predators than achieve maturity, the parents are hard-pressed to find a safe location for their nest. Some go to ingenious lengths, such as the Snow Goose in countering the danger of its worst predator in the far north, the Arctic Fox. The Geese nest close to the aggressive Snowy Owl, which happens to be the worst enemy of the Foxes. Now that's team play!



*From An American River Journal, published by ARNHA. It features illustrations by ARNHA co-founder Jo Glasson Smith and nature essays by Peter J. Hayes, retired newspaper editor and ARNHA associate board member. The book is available for \$9.75 at the Effie Yeaw Nature Center, [arnha.org](http://arnha.org), and selected book stores. Visit ARNHA, org "Podcasts," to hear readings of the essays by the author.*

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## ARNHA Calendar of Events

- **Bird and Breakfast**  
Saturday, March 22, and Sunday, March 23, 8 am to 11 am  
Effie Yeaw Nature Center (see story page 10)  
See [sacnaturecenter.net](http://sacnaturecenter.net) for more details.
- **GARCU**  
Saturday, April 5, 9 am to noon  
Ancil Hoffman Park (see story page 11)  
See [sacnaturecenter.net](http://sacnaturecenter.net) for more details
- **Spring Nature Camps**  
April 14 to 17  
Effie Yeaw Nature Center (see story page 9)  
See [sacnaturecenter.net](http://sacnaturecenter.net) for more details
- **Painting Where the Wild Things Are**  
Saturday, May 31, 5 pm to 8 pm  
Effie Yeaw Nature Center  
See [sacnaturecenter.net](http://sacnaturecenter.net) for more details.

## Welcome New Members! October-December, 2013

John Abbe  
Courtney Arrieta  
Marcia Baver  
Kathleen Beavers  
Wil Bergkamp  
Diana Bergstrand  
Kate Burns  
Nicole Carson  
Jenna Chervanik  
Sam & Rachael Cowan  
Mary DuBose  
Ernest Engressia  
Ramon Fermin  
Kathleen Fitzgerald  
Cheri Fuller  
Jim & Janae Galovich  
Dana Greve  
Joe Guiliano  
Julie Hammatt  
Therese C. Hauer  
Roxalie Jones  
Laverne Kiefer  
Alan Kilgore  
Al Knoll

Karla LaZier  
Joe Lesh  
Tiffany Loosvelt  
Helene Margolis  
Alix Marquiss  
Beatrice Medinas  
Xandra Mejica  
Irene Middleton  
James Moorefield  
Elena Morelli  
James & Mary Neilsen  
Amanda Ness  
Jamey Nye  
Dawn Panton  
Damaras Reigel  
Sharon Ross  
Anne Sanger  
Michael Simpson  
Lynn Strack  
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