THE ACORN

American River Natural History Association Quarterly Magazine – Summer 2022



President's Message, Summer 2022



Laurie Weir

Years ago, when my family moved to the Sacramento area, we chose a neighborhood near the American River Parkway because we wanted to be close to the beauty and nature that it provides. But living close to nature sometimes means getting close to wild animals that are frightening or might do harm.

Recently in our neighborhood we have had multiple sightings of coyotes. These sightings occur during the day. Typically, it is a solo coyote walking down the middle of the street either heading to or from Ancil Hoffman Park. Yesterday I saw one trotting down California Boulevard with a banana peel it had picked up to eat. Several neighbors have relayed that they

have seen a coyote with a cat and another with a squirrel it its mouth. This is extremely upsetting to say the least!

Importantly, coyotes and other predators are of high ecological value. The Effie Yeaw Nature Center's mission includes providing a location for these animals to live naturally and safely. For visitors, especially children, seeing large animals like deer and coyote in their natural environment is awe-inspiring and may be the most memorable part of their trip to the Nature Center.

All of this prompted me to go online to get expert advice on how best to address coyotes in residential neighborhoods. Of course, there is plenty of information. A very credible source is the United States Humane Society: humanesociety.org. Here is an excerpt from their advice on this issue:

If you spot a coyote in your neighborhood, relax: Most coyotes avoid people. "Seeing a coyote out during the day is not a cause for alarm, especially in the spring and summer when they're looking for food for their pups," says Lynsey White, HSUS director of humane wildlife conflict resolution.

If a coyote displays no fear of people, he's probably been fed. You can re-instill his fear by raising your arms and yelling to drive him away. This is called hazing. Unlike trapping, which sometimes catches pets or other wildlife but rarely the coyotes who are causing problems, hazing works.

Coyotes may mistake small, unattended pets as prey or attack large dogs they view as threats to territory or dens. To keep your animals safe, take two simple steps:

- 1. **Watch your pets.** Keep cats indoors, and never leave small dogs outside unsupervised or let any dog out of your yard off leash.
- 2. **Secure food sources.** Store garbage in wildlife-proof containers and feed pets indoors.

The Humane Society website also includes information on coyote management plans, solutions for and preventing coyote conflicts, coyote hazing, and also a coyote advocate toolkit.

-Laurie Weir

The Acorn is published quarterly by the American River Natural History Association (ARNHA), a 501(c)(3) non-profit organization that supports the Effie Yeaw Nature Center and Nature Study Area.

ARNHA Board Executive Committee

President: Laurie Weir

First Vice President: Margaret Leavitt

Second Vice President: Ed Smith

Secretary: Robin Kren

Treasurer: Kathy Webb

Executive Director,
Effie Yeaw Nature Center:

Kent Anderson

The Acorn is produced by the ARNHA Media Task Force

Editor: Mary Louise Flint

Design and Layout: Katherine Roberts

Members: Joey Johnson (Chair), Sam Cohen-Suelter, Krystin Dozier, Mary Louise Flint, Michael Kwong, Margaret Leavitt, Melanie Loo, Katherine Roberts, Eric Ross

American River Natural History Association

Effie Yeaw Nature Center 2850 San Lorenzo Way Carmichael, CA 95608

916-489-4918

Website SacNatureCenter.net

info@SacNatureCenter.net





Cover: Ke-lik-a-lik, EYNC's resident American kestrel visits with guests at the Bird & Breakfast event. Photo by Catie Equi.



Effie Yeaw Hosts Annual Bird and Breakfast Fundraiser

By Catie Equi

On the brisk, cloudy morning of March 19, members of the local community gathered at the Effie Yeaw Nature Center (EYNC) to enjoy the annual Bird and Breakfast fundraiser event. The origins of the event can be traced back to the 1980s when EYNC was facing budget cuts and in desperate need of more funding. The event was a success and has continued ever since except for 2020 when it was cancelled due to Covid-19. A smaller, socially-distanced program was offered in 2021.

Each year in March, Bird and Breakfast participants experience a bird viewing excursion led by expert birders in the Nature Study Area. They then return to the Nature Center to enjoy some good food and company. When the annual fundraiser first began, the breakfast was hosted in the back patio area of the Nature Center with a portion of the Animal Care facility serving as a makeshift kitchen. Since then, Bird and Breakfast has come a long way; it now benefits from the kitchen and more spacious dining area provided by the Assembly Building built in 2004, and the program features a silent auction that was first implemented in the 2010s. Over the years many more people have signed up for the event. This year a second Bird and Breakfast for families was held on March 27.

Around 60 people gathered at the March 19, 2022, Bird and Breakfast to see, hear, and learn all about EYNC's many native bird species. The participants were split into seven different groups each led by a bird expert recruited from either EYNC or the Sacramento Audubon Society. They then enjoyed a 90-minute hike throughout the Nature Study Area. While fewer birds were bustling about than usual, perhaps due to the dreary weather, a plethora could still be spotted, such as the acorn woodpecker (Melanerpes formicivorus), the red-shouldered hawk (Buteo lineatus), oak titmouse (Baeolophus inornatus), ruby-crowned kinglet (Regulus calendula), white-crowned sparrow (Zonotrichia leucophyrs), Bewick's wren (Thryomanes bewickii), the bufflehead duck (Bucephala albeola), and plenty of non-native wild turkey (Meleagris gallopavo). Each attendee was provided with a list of common Sacramento bird species for recording their sightings. One group, led by bird expert Rich Howard, spotted 27 different species throughout their 90-minute walk. Forty-six species were recorded during the two Bird and Breakfast events.



Attendees focus their binoculars on a bird. Photo by Sam Cohen-Suelter.



Audubon volunteer Betty Kniffen points a viewer in the direction of a hummingbird nest. Photo by Catie Equi.



Checking out the birds by the Nature Center Pond. Photo by Katherine Roberts.



Along the hike, scopes had been set up by members of the Audubon Society to allow for the viewing of various hummingbird and bushtit nests. The birders spent weeks prior to the event walking throughout the Nature Study Area scouting the trees and monitoring bird activity in order to find the nests and take note of where to set up the scopes. These scopes not only provided spectacular views of the birds but also helped minimize disturbance by increasing the distance between the large groups and the nests themselves.

Just as it began to rain, the birding groups headed back to the Assembly Building to enjoy a variety of homecooked food provided by the EYNC volunteers, including plenty of pastries, casseroles, and fresh fruit! A silent auction was also set up so attendees could bid on items such as a viewing scope, bird feeder, and gift baskets containing a large variety of goods.

However, the party did not stop inside! Located just outside, in front of the Assembly Building and Nature Center, booths were set up to showcase books about native plant and animal species in the Sacramento region and to further educate about local bird populations. One booth even featured a fun game of bird feather bingo! For those who wanted to get an up-close look at some predatory birds, two of Effie Yeaw's very own Animal Ambassadors made an appearance: Echo, the great-horned owl, and Ke-lik-a-lik, the kestrel!

The annual Bird and Breakfast is a very special event that would not be possible without the help of dozens of EYNC volunteers and staff who dedicate their time to help organize and put on the fundraiser, the birders who provide their expertise, and the members of the community who attend the event. This year's Bird and Breakfast was sponsored by Fred and Betsy Weiland and Randy Getz and Pat Mahony.

Catie Equi is a junior in high school at Rio Americano who has a passion for nature and conservation and has grown up around the Effie Yeaw Nature Center. She now serves as a teen volunteer at EYNC helping to produce The Acorn.



Viewing a bushtit nest through the scope with Audubon volunteer Marty Ikehara. Photo by Katherine Roberts.



After viewing the birds, participants enjoyed breakfast. Photo by Sam Cohen-Suelter.



Poison Oak—Leaves of Three, Let it Be

By Mary Louise Flint

Poison oak, *Toxicodendron diversilobum*, is abundant in parts of the Effie Yeaw Nature Study Area, and any visitor is well-advised to be able to identify it and stay clear. Although it has a negative reputation with people because of the nasty rash it may cause, poison oak is an attractive plant that is an important food source for deer, squirrels, and many birds.

Poison oak is native to the western United States and is related to two other common species that cause skin irritation in humans in the eastern U.S.: poison ivy (*Toxicodendron radicans*) and poison sumac (*Toxicodendron vernix*). All three species contain urushiol [yu-RU-sheeuhl], an oil that causes the allergic reaction. Only poison oak occurs in California.

About 80 to 85% of people are sensitive to the urushiol allergen. Some previously "immune" people become more sensitive after repeated exposure. Animals with fur are usually not sensitive although a dog may show symptoms on its nose. However, people can be exposed to urushiol by petting a dog or touching an article of clothing that has rubbed against plants. The allergen occurs on the leaves and stems throughout the year—including on leafless stems in the winter— and is rapidly absorbed into the skin after exposure. If poison oak is burned, urushiol may be dispersed through smoke and cause respiratory irritation.

If you know you've touched poison oak, the best thing to do is to wash the skin as soon as possible. Liquid dishwashing soap applied with a washcloth and lots of water is recommended to remove urushiol. Isopropyl alcohol poured over the exposed area followed by rinsing with lots of cold water also works. The commercial skin cleansers Tecnu and Zanfel are also effective within 2-8 hours of exposure. But don't use hand wipes; they'll just spread the oils on the skin.

To avoid exposure to poison oak, it is useful to know its growth habit. Poison oak often develops as a 3-to-5-foot-tall shrub, or it may grow as a climbing vine, especially in shaded areas such as in our oak woodlands. The vine form supports itself on trees with clinging aerial roots. It is a deciduous plant, and new shiny leaves emerge early each spring, often red at first—then turning bright green. Each leaf is actually a grouping of 3 leaflets, which may have scalloped, smooth or lobed

edges. (In rare cases there may be 5 or more leaflets.) If you look closely you can see a small bump or bud at the base of the leaf where it attaches to the stem, but there are no buds at the bases of the three leaflets comprising the leaf. Although leaves may superficially resemble those of some oak tree species, oaks and poison oak are not related; oak leaves never grow in leaflets. Poison oak leaves turn reddish in summer and fall and drop as winter approaches. It is important to watch out for the leafless stems as you hike in winter, because even these twigs exude the urushiol allergen when damaged.



Poison oak leaves emerge in early spring and are often tinged red.



Each poison oak leaf is made up of three leaflets. The stalk of the central leaflet is longer than the other two and in line with the leaf's main stalk, which attaches to the stem.



Clusters of yellow-white flowers appear in spring. These are attractive to bees and flies, and I have observed large numbers of honeybees foraging on poison oak blossoms. (Poison oak honey is sold commercially—the pollen and nectar contain none of the urushiol allergen—and is completely safe to eat.) Male and female flowers develop on separate plants. After pollination, female flowers form white berries, which ripen in summer and are eaten by many birds including robins, titmice and flickers.

Propagation of poison oak occurs both by seeds and vegetatively. Seeds are often spread when birds eat the berries and poop out undigested seeds. Vegetatively poison oak reproduces through underground stems (rhizomes) that spread out horizontally just below the soil surface and can sprout roots. Much of the poison oak at Effie Yeaw grows in large clumps in shady areas under our native oak trees, the result of propagation through creeping rhizomes.

Poison oak is one native California plant that has benefitted from disturbances caused by humans and has increased its abundance in natural areas over the last two centuries. The preeminent California botanist W.L. Jepson noted:

"It has a wider geographic range than any California shrub and grows under a greater variety of soil conditions than any other; though usually preferring good soil or rich loams, it grows in blue adobe, in saline soils, in gray clays, in sandy flats, in heavy gravel deposits and in the crevices of outcropping rock piles. It is also adapted to a greater range of rainfall and temperature than any other California shrub and is especially remarkable for its extreme shade tolerance and its tolerance of intense insolation [exposure to sun]."

We might as well learn to live with poison oak and appreciate its beauty and value for wildlife. It is here to stay. Leaves of three, let it be.

Mary Louise Flint, Ph.D., is a docent at EYNC and Extension Entomologist Emerita at the Department of Entomology and Nematology, UC Davis. This article is an adaption of a blog posted on the EYNC web site on July 24, 2019. All photos are by the author.



Flowers are small, yellowish-white, and grow in clusters.



In summer, leaves turn red and fall off plants by



Berries grow on female plants and provide food for birds



Although many poison oak plants are short bushes, plants may also grow as vines climbing high up into trees.



New Playscape Completed! By Mary Lou Flint

The final touches were added to Effie Yeaw Nature Center's (EYNC's) new playscape in April, and children have been enjoying it ever since. The playscape was specially designed to engage children under the age of five, but children of all ages have been drawn in.

The playscape is beautiful and built with all-natural materials, mostly wood. Large hunks of old trees invite children to climb, jump, crawl, and play on them. Other attractions include a working weather station, a wooden xylophone, a musical fence with chimes, a bank of colorful widgets to play with, and numerous other attractions.

The previous playscape was located at a very sunny location at the border of the Nature Study Area and in prime rattlesnake habitat. The new playscape is much larger than the old one, takes advantage of a shady location away from the snakes, and provides many more activities for children. The pollinator garden has been expanded into the old playscape area where the native plants will thrive in the sunshine.

Building the new playscape was a time-consuming process, and work began in Fall 2021. Before any items could be installed, the area was excavated and scraped, Bermudagrass removed by hand, corrugated cardboard and landscape fabric installed, and a healthy layer of mulch applied on top of everything. The Sacramento Tree Foundation donated most of the large pieces of wood from their Wood Rescue program. As a sentimental gesture, the designers also included a log from the old eucalyptus "Pirate Ship" tree that was removed during the Water Forum Salmon Habitat Restoration project down by the river.



Children enjoying the many features of the playscape. Photo by Sam Cohen-Suelter.



Children or EYNC staff can hide objects in these secret bird boxes. Photo by Joey Johnson.



A group of children gather on old hollow log next to a row of musical chimes. Photo by Mary Lou



The Playscape could not have been completed without the generosity of many contributors including Lowe's, Teresa Blue, the Sacramento Tree Foundation, and the many volunteers who provided labor and good ideas. The project was a favorite of EYNC Director Kent Anderson and former Advancement Officer Kathy Fleming.

In addition to the Playscape, the Nature Center has assembled a set of 8 play kits for younger children that can be borrowed by visitors. Each kit is contained in a plastic tub and includes numerous toys, puzzles and games that children can play with to learn about environmental processes and the natural world. Also available for borrowing are classic games for children of all ages including giant dominos, ring toss, giant dice, and cornhole. Visitors can borrow the play sets and games from the front desk and are expected to play with them on the picnic tables, porches, or lawns around the Nature Center. Ask about them next time you visit.



Playkits containing toys, games, and puzzles can be borrowed from the EYNC reception desk. Photo by Mary Lou Flint.



This board of colorful gizmos keeps little ones occupied. Photo by Joey Johnson.



A small boy manages to climb a large log. Photo by Sam Cohen-Suelter.



A wooden weather station measures rainfall, wind, temperature and other parameters. Photo by Mary Lou Flint.



A Nature Camp First

By Melanie Loo

This February the Effie Yeaw Nature Center (EYNC) featured its first nature camp proposed by a Teen Leader in Nature volunteer. During the Presidents' Day holiday week, with support from EYNC staff and docents, Sophie Steubing engaged 8–11-year-olds in a series of day camps she entitled "Unplugged". Camp themes focused around the five senses: sight, sound, smell, taste, and touch. The Unplugged Nature Camps were held for three hours a day on each of four days and were preceded by months of planning by Sophie, EYNC staff, and volunteers.

Despite her young age, Sophie is a familiar face around the Nature Center. Since middle school she has volunteered with animal care, special events, the butterfly garden, and the reception desk, as well as attending a few nature camps herself. In addition, trips with her family taught Sophie the rewards of magnificent views and refreshing snacks accompanying hikes and outings in nature. Sophie noticed that as she grew older many of her peers spent their time on social media and video games, while she preferred to explore the outdoors and create artworks to restore her "sense of calm." More recently Sophie participated in the EYNC Teen Leader in Nature Program started by Volunteer Coordinator Jacqueline Ramirez. As a Teen Leader in Nature, Sophie attended nature-related trainings such as a "Curriculum Development" workshop conducted by Docent Joni Stein, a retired middle school teacher. Thus, it is no surprise that for her senior project for her high school's civic engagement program Sophie proposed to create the Unplugged Nature Camps.

Working closely with EYNC staff, Sophie was involved in everything from publicizing the camp days to developing a curriculum, organizing necessary materials, and working with camp assistants to lead groups of campers through the curriculum. Each day of camp concentrated on one or two of the five senses. Games, songs, a bit of instruction, journal writing, and snacks were assembled around an all-important hike, to keep campers active and focused. For example, on the day emphasizing their sense of sound, campers listened to different bird calls before going out on the trails to discover which birds they could identify by their calls. One of Sophie's most rewarding outcomes was seeing campers working on detailed drawings of animals they had encountered, rather than chatting about their favorite video games. She felt that she had reinforced a valuable alternative to spending time in front of a screen. While noting that a few more hands-on activities and trailside snacks might help future campers gain even more from their hikes and outdoor experiences, Sophie was pleased with the success of the Unplugged Nature Camps. She is even contemplating such a camp for adults, to share with a broader audience the physical and emotional benefits of spending time in nature. Find more information about nature camps at sacnaturecenter.net/education/nature-camps/.

Volunteer Coordinator Jacqueline Ramirez expressed deep gratitude for the efforts of dedicated volunteers like Sophie Steubing and Joni Stein, who share their unique talents and interests to enrich various EYNC programs. If you are interested in supporting the mission and goals of the Effie Yeaw Nature Center as a volunteer or are connected to an organization/business that would like to arrange a Day of Service with your team, please reach out to our Volunteer Coordinator, Jacqueline Ramirez at JacquelineR@SacNatureCenter.net or (916) 875-3912.

Melanie Loo, Ph.D. is a retired Professor of Biological Sciences at CSU Sacramento. She volunteers at EYNC as a docent, trail steward, and member of the Habitat Restoration Group.



Sophie Steubing (left) encourages campers in the Unplugged Nature Camp to use their five senses near the American River. Photo by Yuliana Hernandez.



Salmon Habitat Restoration Update

By Joey Johnson

Anyone who has taken a stroll through the Nature Study Area and down to the river knows that a lot has gone on there this past year. The Water Forum, in partnership with U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), and the California Department of Fish and Wildlife (CDFW), along with the city and county of Sacramento restructured a section of the river to restore natural spawning habitat for salmon. The bulldozers are gone, and the river has a new look. I checked in with Erica Bishop, Program Manager for Habitat +Science for the Water Forum to see where the project is now. I emailed her three key questions and she graciously responded below.

Is the project complete or is there more coming such as planting more native plants or observation structures?

The project is complete, and the fish are using it! Some recent willow plantings were conducted, and we may do a few more plantings in the future since the initial effort was vandalized, but essentially the project is complete and over time the area will naturally recruit additional native vegetation as water levels rise and fall. There are some nice existing observation areas from the trails and high ground along the site, and we don't currently plan to construct anything extra but are working on some large signage in consultation with Effie Yeaw Nature Center (EYNC) staff, regarding the project.

Do you have any stats on the impact this has had on the salmon population this past year?

This year was tough for our fish, since they faced hot temperatures, low flows, and poor water quality (lots of algae) in the summer and fall. However, right now [in March], fall-run Chinook fry are starting to emerge from their redds, or spawning nests, and steelhead are still spawning. Seasonal comprehensive data is still being analyzed, but we did see immediate post-construction usage of the site by spawning fall-run Chinook salmon, even during our drought conditions (low water levels and warm temperatures). We have also seen steelhead using the site, and the location of the site is helping to spread steelhead out in the river and give them more useable area (they usually concentrate up in the Nimbus and Sailor Bar areas). We are seeing spawning farther downriver than usual, and a healthy percentage of







the steelhead redds counted so far in the river were observed at Ancil Hoffman, so the fish must like the fresh, clean gravel that was deposited during this project.

How will you collect data from the area?

Data will be collected in several ways. 1) Ancil Hoffman is included in a current mark-recapture study by Water Forum where we are comparing spawning and rearing usage of some of our restored vs. unrestored sites. From this study, we will be able to understand more about the life history of fish in our river and will be able to eventually tie baby fish to parent fish and understand which site they used. This information helps us with adaptive management including the location of future restoration and types of enhancement activities we may implement. 2) Bureau of Reclamation conducts aerial spawning surveys during fall and winter to measure spawning usage by fall-run Chinook and steelhead trout over the fall and winter. 3) Ongoing surveys by CDFW and Reclamation contractors for spawning steelhead and juvenile emerging Chinook are continuing.

According to Kent Anderson, Executive Director of EYNC, Nature Center staff are working with Water Forum staff to create a display in the exhibit hall to further educate the public regarding salmon, steelhead, the impact of humans on habitat and ways to mitigate this impact, which includes projects such as this restoration. This display will be completed sometime before summer.

To learn more about similar projects along the Lower American River you can go to <u>waterforum.org/the-river/habitat-management/</u>.

Joey Johnson is a Past President of ARNHA, a photographer and nature lover. All photos are by Joey Johnson.



A rearing alcove was created adjacent to the river to protect juvenile fish.



An egret stands on top of rocks placed in the river to provide preferred sites for spawning.



Salmonids prefer to lay their eggs among gravel in the fast moving river, but newly hatched fish will be more likely to survive in adjacent slow-moving areas that provide places to hide from predators and lots of small invertebrates for food.



Volunteer Profile: Rich and Mary Howard

By Mary Louise Flint



Rich and Mary Howard are longtime bird lovers and volunteers at the Effie Yeaw Nature Center (EYNC). For more than 8 years, they have been key players at the Nature Center's Bird and Breakfast event.

Rich and Mary started visiting EYNC when they first moved to Carmichael over 30 years ago. Mary remembers coming almost daily after a hard day's work teaching elementary school in Rancho Cordova. She found walking the peaceful trails a good way to leave the day's stresses behind. Rich, always an avid birder, quickly discovered that the Nature Study Area was one of the best places to find birds in the Sacramento area and convenient, too, since he could walk there from their home.

When they retired, Mary and Rich became more active at EYNC. Mary became a docent. She liked getting her "kid-fix" in nature, outside the classroom. Rich began to lead birding hikes and present classes on bird identification for docents, volunteers, and the general public. Both became trail stewards and participated in many special events and projects. Because of her outstanding organization skills, Mary was often behind the scenes making sure things ran smoothly. As we talked, they reminisced about one project where they took home boxes of feathers from the EYNC collection to meticulously sort, identify, and tag.

Mary and Rich met when they were undergraduates at UC Berkeley. After graduation they joined the Peace Corps and spent two years in Lesotho, a small, landlocked country surrounded by South Africa. When they returned to the States, they pursued graduate degrees—Mary in education and Rich in soil science. Before retiring, Rich worked for the U.S. Soil Conservation Service and later advised about hazardous waste cleanup in the private sector.

Rich became serious about birds when he was at UC Berkeley and was recruited to help a hard-of-hearing professor find a special bird, the Rufous-crowned sparrow, in anticipation of the Berkeley Christmas bird count. As is the case with many little brown birds, hearing this bird's song is often easier than spotting the bird itself.

The professor had a cassette tape of the bird's song and instructed Rich to play it until he was sure he knew it. Then the two of them went hiking around the area until Rich heard the song and pointed in the sound's general direction. The professor quickly spotted the bird, and they were able to come back the next week and add it to the Christmas count. Rich had so much fun that he has participated in Christmas bird counts ever since.

If you've ever gone on a bird walk with Rich, you immediately learn how important bird songs can be for birders. Rich really has an ear for bird calls and emphasizes them in the basic birding classes he teaches.



I asked Rich and Mary why they keep coming back to EYNC. They noted that it is a protected area that allows you to experience nature at your own pace, a rarity in Sacramento County. With its ban on dogs and bikes, it is also one of best places to look for birds and one of the few wild spaces in the area. Most people don't appreciate how disruptive bikes and dogs (even on a leash) can be for wildlife.

They also support the educational mission of the Nature Center. They were delighted to see visitor numbers increase during the pandemic, when EYNC attracted people who previously hadn't spent much time in nature. Many of these people continue to return to enjoy the birds and peaceful trails.

Mary Louise Flint is an EYNC docent and editor of The Acorn. Photos were taken by the author.



Donors & New Members-January through March 2022

- · Dominic Acosta
- Lucy Albritton
- Nancy Allardyce
- Kelly Allen In Memory of **Betty White**
- **American River Parkway Equestrian Trail Patrol**
- Carrie Ammerman
- Kristen Angelini
- Carl Arana
- Coral Arana In Honor of Mandy Bun
- Arden Park Garden Club
- Lisa Auble
- Carolyn Bahl
- Charleen & Bradley Baker
- Madeline Baker
- Sara Baldwin
- Sarah Bancroft
- **Bud & Karen Banker**
- Karen Barsch
- Linda Barton-Macdonal
- Karen Baxter
- Jim Guigli & Fran Baxter-Guigli
- Noah & Katie Baygell in Memory of Bill Bryant
- Kathleen Beavers
- Susan Bell
- Bette Benedetti
- Naiib Benouar
- Laura Berard
- Kathryn & David Berry
- Mark & Lauren Berry
- Cathy Betts
- **Robert Bianco**
- Carol Bicos
- F. Thomas Biglione
- Lvnette Blumhardt
- Cheryl Boldig
- **Emily Boling**
- · Laurie & David Bolland
- Eric Bollinger
- Bryan & Cristina Bonino
- Khalil Bourgoub
- Peter Bratach
- Kiefie & Art Breuer
- Susan & Brad Bristow
- Michael & Pam Britton
- Nicole Brodeur
- **Neil Brown**
- Chervl Bruce
- Norman Brule
- Sally, Robb & Penryn Buck
- Shabana Buksh
- Bruce Burdick & Layne Hersh
- Jeff Burdick
- Gregory & Jean Burke
- Amanda Cable & Sarah Musser
- Julie Cahill

- Mathew Calmer
- Rebecca Cameron
- Edric & Ethelwynne Cane
- Jessica Carlton
- Carmichael Creek NA
- William Carroll III
- Nancie Carter
- Loretta Caskey Candace Castillo
- cbec eco engineering
- Alexa Cendejas
- Cassandra Chavez
- **Donald Childs**
- Ellen Chrismer & Jim Miller
- Allison Claire
- Jill & David Clark
- Lucy Clark in Honor of Peter Clark
- Jason & Tamara Clary
- Dale & Jeannie Claypool
- Linda Cochran
- Melissa & Jon Cofer
- Leslie Cohen
- Carye Colangelo
- Victoria Conner
- Shana Cook
- **Betty Cooper**
- Israel Coria
- Patricia Cornelius
- Lisa Coronado
- Gisele & Cliff Corrie
- Kathrvn Cotter
- County of Sacramento & Rich Desmond
- Nancy Cowan
- Rachael & Sam Cowan
- Patricia Cramer
- Rick Croom & CJ Hackett-Croom
- Ronee Cuevas
- Tom Currier
- Kate Daby
- Michael Darnell
- Sue Darst
- John Daurie
- **Dwight & Carole Davenport**
- Courtney Davies in Memory of **Betty White**
- **Rachel Davis**
- Susan & Rodney Davis
- Meg De Courcy
- Jackie DeLu & Michael Covey
- Cecilia Delury & Vincent Jacobs
- Deirdre Dement
- Julie Deprada-Schott
- Helen Diepenbrock in Memory of Tony Diepenbrock
- Robert Dittman
- Ann Doersch & Stephanie Monzon
- Lily Douglas
- Krystin & David Dozier
 - Colleen & Rich Draffin

- Trina Drotar
- **Hunt Drouin**
- Melanie DuBoce & James Nauven
- · Cindy Dunning & Chris Jakle
- Elizabeth Eaves
- Harvey & Scarlet Edber
- Eliane Eisner
- **Becky Erickson**
- Nathan Evenson
- Annette Everlove
- David & Dona Evpak
- Nathan Fairman & Katherine Elliot
- Rebekah Fechner
- · Natalie Fenner
- Connie & Ted Ferrara
- Gin Fierro
- Carolyn Fisher
- Marilee Flannery
- Tova Fleming
- Tony Fletcher
- Mary Louise Flint
- Alisha Ford Jacqueline Fostar
- Ben & Kate Fox
- Rebecca Frazee
- Rebecca Frederickson
- **Thomas Freeburger**
- Meghan French
- Terri Friedman & Mark Urban
- · Julia Fritz
- Larry Fritz
- Roberta Gabel
- Kris & David Gagne
- Joseph Gallegos
- Marianne Gannon
- Caro Garcia
- Barbara Gardner Sarah Gardner-Kerss
- Laura Garwood &
- Leon Wartinger
- Mary & Richard Gaspari
- Fatih Gencer
- Randy Getz & Pat Mahony Mario Giacomotto
- Ted & Mary Glum
- Tom Gohring & Kate Williams
- Deon Good Sharon Goske
- Julia Gowin
- **Gary Gravier**
- · Cheryle Gray
- Jay & Deborah Greenwood Teri Griffis & Ed Medina
- Barry Grimm
- Katherine & Eli Groppo
- Thomas Guilderson Aditya Gune

Jane Grossman

- Erica Haga
- **Rod Hall**

- Chuck Halnan
- **Andrew Hamilton**
- Elena Hanrahan
- Zara Hansen
- Gary & Mildred Hanson
- Jim Hargrove
- Birte Harley
- **David Harlow**
- **Heather Harris**
- Linda Hatch
- Kristen Haynie
- Kathi Hegelein
- Ralph Heim
- Sandra Hemsworth
- Ashley Henderson
- Therese Henning
- Mia Hershiser
- **Hewlett Packard** Karim Hirani
- Grace Hitomi in Memory of
- Margaret Ewing Alexander Hoeffner
- Joslyn Hoehn
- Carol Hoffer
- **Bruce Hou**
- · Rich & Mary Howard · Rosemary Howard &
- Tim Anderson
- Austin Hsu
- Jerry Huang
- Marina Huettlinger Travis Huff in Honor of
- Pete & Adria Santillano
- Elaine Hujambojoie Paul Hunt & Angie Gould
- Christine Hunter & Gordon Nash
- · Roland Hvatt
- Sarah Hvsell
- Phil & Marilyn Isenberg Deborah Jane
- Mary Jennings
- Justin Johnsen Joev Johnson
- Harpreet & Jagjeet Jolly
- Clare Jones
- Jan Jones
- Paul Jones Roxalie Jones
- Terrence & Deborah Jones
- Susan Just
- Teresa Kahl
- Virginia & Eli Kaser Matthew Kawamura
- Gary & Bobbie Keill Shelby Kelley
- Herbert & Elizabeth Kelly **Kelly Foundation**
- **Ann Kempees** Cynthia Kenley
- Claudia Kenney Carey
- Bridgette Kerimbaev

- The Acorn American River Natural History Association Quarterly Magazine Summer 2022

- Saskia Kim
- Paul Kinsella
- Arnold Klapheck
- Amanda Kline in Honor of Mandy Bun
- Larry & Donna Klink
- Leah Knitter
- Ralph Koo
- John Koppes in Memory of Alan W. Koppes
- Stephen Krale
- Suzanne Krale
- Robin Kren & Mark Hoag
- Michael Kwong
- Sandi Lane
- David Lasich
- John & Kiyoko Latham
- Marlene Laughter
- Mary Ann Lawrence
- Karla LaZier
- Margaret Leavitt & Alan Lilly
- Laura Leclerc
- Holly Leshikar
- Kristina Letson
- Christina Lewis
- Don & Diane Lewis Scott in Honor of Diana Wallace
- Barbara & Chris Lezon
- Dede & Adam Lindgren in Honor of Ed Smith Family
- Kerry Lindgren
- Jason Lindo
- Dennis Link
- Maria Livingston
- Wendy Lloyd
- Riccardo Locascio
- **Thomas Louis**
- **Loveall Foundation** for Children
- Katie Mack
- Catherine MacMillan
- Stephen Magaghini & **Edith Crawford**
- Alexandria Mahbobi
- Nick & Kim Majetich
- Robert & Deann Mann
- Pagona Manologlou
- Sandra Marvel
- Marty Maskall
- Jacqueline Matson
- Amanda Mattson
- Rosemary Mayfield
- Tessa McCarthy
- **Bob McCleary**
- Beatrice McCrea
- Mary McCune
- Tim & Janie McGinn in Honor of Tim McGinn
- Jayme McGowan
- Tom & Cleann McGuire
- Irene Mehaffy
- Andrea & Althea Meier
- Linda Melching
- Liliana Mendoza

- Hunter & Lori Merritt
- Mary Messenger
- **Robert & Mary Beth Metcalf**
- Bervl Michaels & John Bach
- Ryann & Shane Miller
- Lori Mivasato
- Michelle Monteforte
- **Brian Moore**
- John Moore
- Timothy Moran
- James Morgan & Lori Christensen
- Pat & Larry Morris
- Iryna Mostyka
- **Emily Moulton**
- Laura Murphy in Memory of Anthony Diepenbrock
- Esma Nacakgedigi
- Suzanna Naramore
- Carla Nelson
- Mark Nemmers
- Miranda Newman
- Cody Newport
- **Dung Nguyen**
- Lou & Ellen Nishimura
- Micah & Ashley Nunneley
- Kevin O'Brien in Honor of
- Kai Richard O'Brien Mallory O'Connor
- Jeannie Odom
- Soon Oh
- Kerry O'Keefe
- George Oki
- Mina Oliver
- Christine O'Neal
- Dorothy Orolin
- Elaine Ortmeier in Memory of Wilbur Ralph Bryant
- **Duane Orzol**
- **Christopher Papouchis**
- Patrick Parker
- Elizabeth Parkin
- Carol Passovoy
- Sagar Patel
- Lizzy Paul
- Phyllis Payne
- John & Dee Peacock
- **Brittany Perez**
- **Tracey Peterson**
- Lisa Phenix
- Steven Phillips
- Lynne & David Pinkerton
- Jeannine Powell
- Pamela Price
- Justin and Vernelle Puerta
- Werner Raab
- · Blake Rabe
- Jessica Radtke
- Nancy Raleigh
- Stephanie Rallanka
- Loren Ralph
- Alison Ramirez
- Mary Ramos
- Michelle Reaves in Memory of **Betty White**
- · Melissa Reisinger

- · Kathryn Reynolds
- Janet Rezos & Stephen Woodward
- Ruth Rezos & Ken Nahigian
- Naomi & John Rice
- Kimberly Rider
- Tanya Rinderknecht
- **Katherine Roberts**
- Valorie Rodriguez
- Randy & Cheryl Roesser
- Michael Rogawski
- Cindy & Tom Rogers
- John Rogers
- Margaret & John Rogers
- David Rolloff
- **Rvan Rose**
- · Letitia Ruiz
- **Chad Russell**
- Lyn Rutan
- **Antoinette Sabelhaus**
- **Ted Samson**
- Megan and Adrian Santos
- Samuel & Mary Ellen Scarlett
- Adam Schawel
- Gwenda Schoen
- Nancy Sciabica
- Sara Sealander
- Daelyn Semanski
- Kathleen & Steven Sewell
- Heather Sheridan
- Mvo Shin
- Donna Shine

- Chris Sims **Edward Smith &**
- Mary Lou Fairweather
- · Jennifer Smith Sara Smith in Honor of
- Mandy Bun
- Susan Solarz
- Kathryn Soriano
- William & Anne Spaller
- Rebecca Starr & Sergio Miramontes
- Jane Steele
- Joni & Steve Stein
- Kimberly Steinmann
- Craig Stevens
- Renee Stock

Carol Stirnaman

- Perry Stout
- Jim & Mary Jo Streng
- Cindy Su
- Christine Suarez-Murias in Honor
- Gail Sullivan
- Richard Sun
- Norma Tabatabai
- Patrick Taillo
- Blesyl Tan
- Karen Tarp & Eric Ross
- **Kelsey Taylor**
- Paul Tebbel
- Jaclyn & Jon Teofilo
- **Danielle Romais**

- Jennifer Schieck
- Lauri Schwein

- Katharine Severson

- Jill & Mike Short
- Tommy & Barbara Silver
- Patricia Simms

- Steve & Janet Smith

- Nora St. John Leslie Stair
- Susan Stefanic
- Morna Stephens
- Patricia Stock
- Sarah Stoltz & Gregory Herrera
- Dan & Cindy Stone

- of Jackie DeLu

- Joan Swanson

- The Dragony Family
- The Niello Company
- John Toney
- Lenea Travis
- Warren & Mary Truitt Heidi & Kathy Tschudin in Honor
- of Josh and Jamie Hicks Wedding
- Michelle Tucker Marjorie Tuckerman
- Stephanie Turner
- Stephen Tuttle Violet Underwood
- Talitha Van der Meulen • Lisa & Robert Velazquez
- Virginia Volk-Anderson &
- Clifford Anderson · Ron Vrilakas
- Stephen Walker &
- Sabrina Schultz Robert Wall
- John Walton Ann & Jeremy Ward
- Tom & Cheryl Ward

Dorothy & Patrick Wagner

- Kathy Webb
- Laurie Weir & Jacek Lisiewicz Tracy & Stephen Wetzel
- Frank & Helen Wheeler John Whitelaw
- Rebecca & Mark Wiest Stacy Williams
- Liz Williamson Melanie Willmann
- Jovce Wilson Leo & Brenda Winternitz Suellen Witham

Nathan Woods

- **Shirley Woodruff**
- Lucinda Woodward **Emily Yager**

Diane Young

Rachele Zamani

Anthony Zepeda

Stacy Zink





Follow us on <u>Facebook LIVE!</u> and <u>Instagram</u> to keep up-to-date on the latest happenings at the Nature Center and in the Nature Study Area, discover fun facts about plants and animals.



Discover our region with activity and nature guides, children's books, and more created and published by the American River Natural History Association—the non-profit organization that runs the Effie Yeaw Nature Center. Shop Books.



A quarterly digital magazine for members featuring articles about our regional natural world, events at the Nature Center, volunteer features and opportunities, and more! Take a look at The Acorn archive.

SacNatureCenter.net

