

THE ACORN

American River Natural History Association Members' Magazine – Spring 2020



Contents

Turkey Love is in the Air	1
President's Message	3
Executive Director's Message	4
Rattlesnakes at Effie Yeaw	6
Teen Volunteers	8
Showboat	9
Summer Camps	10
Ways to Give	11
Donors	12

Turkey Love is in the Air... Well, on the Ground Actually

Mary K. Hanson

The Wild Turkeys we see in and around the Effie Yeaw Nature Study Area are Rio Grande Wild Turkeys, *Meleagris gallopavo intermedia*, one of four different subspecies that were introduced around the country between the 1920s and the 1950s to offer hunters the large game birds to hunt. (Our native species, *Meleagris gallopavo californica*, is extinct.)

Starting in February, very often right around Valentine's Day, appropriately enough, our local Wild Turkeys start gearing up for their courtship rituals and mating behaviors.



Leucism: This male turkey, although possibly impressive for us to look, will have trouble attracting a mate in his current condition. His tail feathers are mismatched, his wingfeathers aren't barred, his beard is short and wrinkled, and he's still carrying some of his down—all indications of his immaturity. It's not known if his leucism will also be a factor as he matures. Leucism is a condition in which the body doesn't produce all of its normal pigment cells, which causes the animal to look mottled or "washed out". Unlike albinism, which is a complete lack of pigment, leucism doesn't affect the eyes.

The male turkeys -- called "jakes" when they're young and "toms" when they're older -- can be sexually mature by the time they're about seven months old. Females -- called "jennies" when they're young and "hens" when they're older -- take a bit longer, sometimes up two years, before mating is even thought about. The birds go through a series of molts and color changes and the hierarchy [who gets what first] is hammered out.

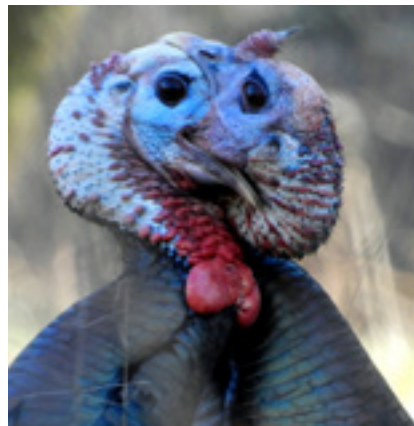
Males fight males, and females fight females for dominance well before the mating season starts. What's interesting is that once the females' hierarchy is set, it stays pretty much intact and doesn't change until the dominant females get ill or die. The same can't be said for the males. Their hierarchy can change a lot, and ranking isn't just set between the individual males of one bachelor group, it's also established



Female Turkey: A receptive female chooses a male to mate with based on number of different factors such as his coloring and the precise number of the quill feathers in his tail. If she likes him, she'll dance in a figure-eight pattern around him while he struts, and then sit down on the ground next to him.

between different groups in the same area. The males form "gangs" that fight not so much for broad territories as for "leks", the stomping grounds where the males will court and mate with the females.

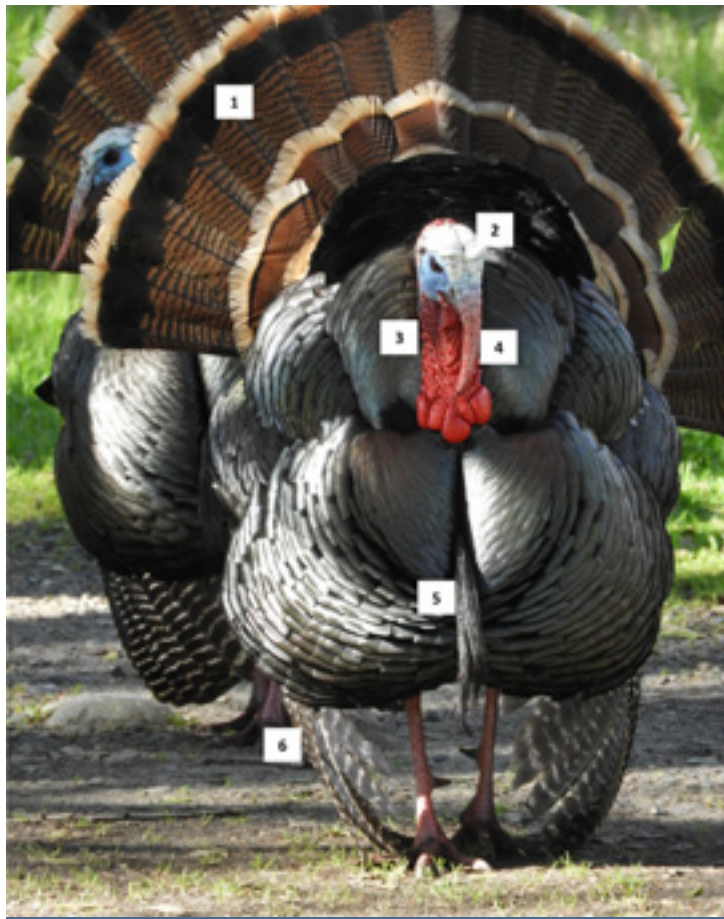
Dominance between individual male turkeys is established through fights, which can look pretty violent but are more about strength and endurance than they are about killing. Males will posture to one another, wings down, heads held high, then engage in battle by hitting one another with their wings and the spurs on their legs, or through "neck wrestling". When wrestling, one male will grab his opponent's face or neck with his beak and hang onto it for as long as he can. The bitten male will try to dislodge the biter by twisting his neck around his opponent and pulling him down to the ground. These wrestling matches can take up to two hours or more. (Females fight in much the same way, but their battles are less frenetic and don't last as long.)



Jousting: When wrestling to establish his place in the hierarchy, one male will grab his opponent's face or neck with his beak and hang onto it for as long as he can. The bitten male will try to disengage the biter by twisting his neck around his opponent and pulling him down to the ground. These wrestling matches can take up to two hours or more.



Once the hierarchy is set, it's the dominant males and females that do most of the mating. Subordinates may sneak some mating in, but their success rate is low. One study done through UC Berkeley suggested, however, that within the bachelor groups (which are usually comprised of genetically related brothers and step-brothers), lower-ranking males actually act as willing "wing men" for the higher ranking males, helping to attract females to the stomping grounds so the dominant males have more females to choose from



Male Turkey: [1] When courting and breeding, the male's tail, head, neck and chest play a major role in broadcasting his sexual maturity and readiness to receptive females. [2] The tail is fanned out and the quill feathers in it have to be perfect and well-matched. [3] The "pancake" on the top of the head turns white and the face turns blue as the caruncles and wattle blush deep red. [4] The snood engorges with blood and extends down from the center of the forehead and over the beak. [5] The length of the beard can sometimes be a visual clue as to the male's age (but that's not always a great indicator because the filaments can get damaged and break off, and some females, about 15%, have beards, too.) [6] The numbers of bars on the primary feathers of the wing can also denote age and maturity.

and mate with. The wing men do this by gobbling loudly and performing some mock-battles with the dominant males that attract the attention of females nearby.

During the courtship displays, all of the males in the group may look like they're doing the same thing, but there are subtle differences in how and where they step, what their facial coloration is, and how their feathering looks. Males

with less than 18 perfect quill feathers in its tail, for example, may still display, but are ignored by the females. Imperfect or missing tail feathers can be an indication of immaturity, illness or a lack of strength. Mature Wild Turkeys also have about 21 stripes on those long primary wing feathers which helps to tell the females how old the males are; juvenile males with unbarred wings are also ignored.

During their courtship displays, only the most dominant males will go into full "strut": drop their wings to the ground, raise and fan their tail feathers, tuck their chins in and lift their chest feathers while they walk in slow motion, sometimes turning this way or that to put themselves in the best light for the females nearest to them.

While strut is taking place, you'll also notice that the male's snood (that appendage on the forehead that looks kind of like a unicorn's horn when the bird is relaxed) will fill with blood, lengthen, and droop down the male's face over his beak. At the same time, the wattle under the male's chin, and his caruncles (all that wrinkly, knobby flesh down his neck) will blush bright red. His face will turn blue and his forehead will turn white. The more mature and dominant the male is, the more intense these colors will be. These are all cues that can attract a receptive female.

When she finds a male that she likes, the female will dance closely around him in a figure-eight pattern; first to one side and then to the other, while the male continues to strut. This strutting and figure-eight dance may continue for several minutes. Then the female will let the male know she's ready for mating, by sitting down on the ground right next to the male. She may also close her eyes.

The next step in the mating behavior is called "treading". The male will step up onto the sitting female's back and massage her with his feet until she lifts her tail for him. At this stage, if she doesn't like the way he feels, the female may stand up right underneath him and throw him off, so he has to have just the right touch. (While this is going on, you may also see sexually frustrated subordinate males treading on the ground near where the actual mating is taking place to help relieve their own sexual tension.)

Now look at the male's chest. See those long filament-like structures protruding from the center of it? That's called a "beard". Scientists don't really know what the beard's full-purpose is (as some females also sport beards), but several studies have suggested that the male uses his beard to help him orient himself on the female's back. If he's not positioned on her back in the correct spot, copulation won't be successful, so he has to get that orientation just right. With his rounded chest and all of his feathers fluffed up, however, he can't see his feet, so he uses the beard like "cross-hairs" to get himself into the optimal position.



If the male is in the right place on her back, and his treading feels good to her, the still-sitting female will raise her tail enough for him to get his cloaca close enough to hers for an effective mating. Once that occurs, the male will step off the female, and she'll stand, walk away, ruffle her feathers and preen.

That dominant male and female may mate several times, but the male will also mate with other females, usually up to ten in a single breeding season. There's no monogamy in turkeyland. The next time you're at the Nature Study Area, see if you can tell the sex and maturity of the Wild Turkeys by their plumage and coloring, and watch for some of their courtship and mating behaviors yourself. They're fascinating birds with sometimes complex rituals.

Mary K. Hanson is an author, nature photographer and Certified California Naturalist. She got her naturalist certificate from the Effie Yeaw Nature Center and serves as a volunteer trail walker and member of the media committee. All of the photos shown with this article were taken by Mary at the Nature Study Area.



Mating: When "treading", the male will step up onto the female's back and massage her with his feet until she lifts her tail for him. At this stage, if she doesn't like the way he feels, the female may stand up right underneath him and throw him off, so he has to have just the right touch.

President's Message, Spring 2020 — Revised for Covid-19

Spring is here! The days are turning sunny with the promise of warmth to come. Our Carmichael neighborhood is filled with the smell of blooming flowers – a true sign of spring. At the Effie Yeaw Nature Center, everywhere you look is cloaked in the deep emerald green of spring. The deer lay down and are almost covered by the height of the grasses. Herds of deer munch lazily on this spring bounty. How lucky we are to share such beauty, beauty that is made more poignant by the great challenge we are all facing due to the Covid-19 health crisis.

The American River Natural History Association Board of Directors and staff have made many changes in response to the health crisis. Most importantly, we have closed the Nature Center Museum and Assembly buildings to the public, our in-person nature education programs have temporarily stopped, we have postponed key events, we have heightened safety protocols in place, and many staff are working from home.

Although we're closed, our work doesn't stop. We continue to care for our animal ambassadors and walking trails in the Nature Study Area. We're observing social distancing protocols, staggering staff schedules that are essential to maintaining the Center, and re-cleaning constantly. Even in a quarantine situation we need some staff to be on site to continue to care for animals, and keep the property secure.

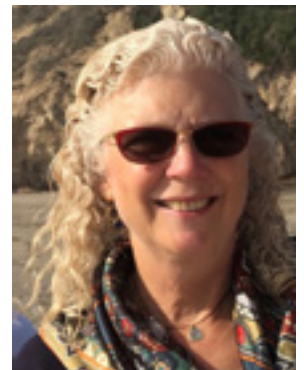
In spite of all these changes, the Nature Center continues to have so much to offer! First and foremost, our trails in the Nature Study area remain open! I see people walking these trails. In order to maintain required social distance, I recommend walkers stick to the Main Trail which is much wider

and easier to keep a distance than the secondary trails. We all need to get outside and reconnect with nature, now more than ever, but we must do it safely.

We have created lots of new and engaging on-line programming with our Ask A Naturalist series and fun videos of what's happening on the trails. Keep watching our on-line and social media space, as we will have lots of new content in the coming weeks.

As a nature education non-profit, we rely on the revenue generated by our educational programming and fund raising events to survive. With the Covid-19 health crisis, we are facing profound challenges that over time may threaten our ability to sustain the Nature Center into the future. We need you, we need your support. Please contribute to us through our current Spring Appeal and the upcoming Big Day of Giving – and anytime through our website!

Many of you have already been generous with contributions to the Nature Center. We are incredibly grateful to you for your thoughtful support! Thank you for your encouragement - and for your enthusiasm for our digital initiatives in lieu of scheduled in-person programming. We are confident that the future will bring us back together. We look forward to seeing you at our rescheduled events under the oaks at the Nature Center.



Laurie Wier



Meet Kent Anderson, Effie Yeaw Nature Center's Executive Director

My passion for the outdoors and my obsession with the plants and wildlife, especially local and native species, started at a very early age. From long before I can remember, my family tells me that I kept them on the run, visiting places like the American River and Effie Yeaw Nature Center, the Sacramento Zoo and the California Academy of Sciences, spending countless hours absorbing every bit of information I could get my hands on, and checking out each and every exhibit, activity, plant and animal I could find, often times over and over again.

Effie Yeaw Nature Center has been a fixture in my life since before I can remember. Hours of walking the trails and investigating the wildlife, both inside the Nature Center and out along the river and meadow trails predate my earliest memories of participating in programs and camps. One particular memory stands out from very early on. Around the age of 3 or 4, my parents brought me to EYNC to participate in an evening bug program. The crowd gathered in the amphitheater and watched a slide presentation about a wide variety of amazing invertebrates, eliciting many “ooos and awws” from a rapt audience of young children,



Photo by Susan Maxwell Skinner

I was fortunate to grow up in the greater Sacramento area, near the convergence of two creeks in the suburbs of Roseville, not only a short drive to places like the American River Parkway and Effie Yeaw Nature Center, Land Park or the Coloma Gold Discovery Site and Placer Nature Center, but also a quick, two-minute sprint to one of the last undeveloped areas in the still small, but growing city. Miles of Dry Creek and the smaller but more dynamic Cirby Creek were where I spent nearly all my free time between school, Cub Scouts and soccer. There I learned directly from nature, observing the changing of the seasons and the behavior of the animals and characteristics of the riparian and upland plants that surrounded me. I learned that blackberries always taste the sweetest when gathered while wading in a creek during the hot, midsummer months and crawdads escape by scooting rapidly backwards, so to catch them you must put your net behind, not in front! We had a policy in my house that I could only have so many animals for study and only for short periods of time. I traveled everywhere with nets, jars and guide books and immersed myself in any natural environment I could find.

eager parents and interested adults. The sun slowly set and the presentation came to a close. Little did we know, the best part was yet to come. The projector was turned off and the overhead lights came on, revealing an array of nocturnal insects covering the white sheet that had served as the screen for the presentation, drawn in by the light reflecting

off the glowing fabric surface. I remember joining the small crowd of kids and adults at the screen, asking questions of the presenter and having them pull insects from the screen and carefully handing them off to the crowd while identifying them and relating small anecdotes, tricks to identify them and generally enjoying the excitement of the crowd.

That night at Effie Yeaw Nature Center has stuck with me over these many years, inspiring a lifelong pursuit of learning and a love of all things outdoors and nature-focused. Throughout my career, the opportunity to expand my knowledge and gain personal growth, along with the desire to serve others and act as a steward for the natural world, have been paramount. Whether focusing on environmental education while working for the Boy Scouts, the Sacramento Zoological Society, Sierra Nevada Journeys Outdoor School,



Turtle Bay Exploration Park or the Boys and Girls Clubs of Central Sonoma County, or concentrating on stewardship and resource management through my work with the Department of Fish and Game (now Fish and Wildlife), South Yuba River Citizens League or most recently as the Executive Director of Putah Creek Council, the ethos of stewardship and passion for education has sustained me. As a UC Certified California Naturalist, along with my membership as a Board Member with the Wildlife Care Association, I carry with me a belief that we have a responsibility to conserve our natural resources, to educate our children about their home and to promote an appreciation for our natural world, something I bring with me to EYNC!

I am incredibly excited to join the team at Effie Yeaw Nature Center and thrilled for the opportunity to bring innovative

educational opportunities, informative exhibits, awesome wildlife interactions and life-changing “Aha” moments to the more than 100,000 annual visitors to the Nature Center and Nature Study Area, inspiring more kids to love nature, just like I was inspired so many year ago. There is no place quite like Effie Yeaw Nature Center and no group of staff or volunteers with whom I would rather work! This dedicated team is the heart and soul of the organization and a daily inspiration that helps me to jump out of bed every morning, excited to come to work. Effie Yeaw Nature Center and the American River Natural History Association have a long and rich history, which guide us into a bright and exciting future for the Nature Center, the parkway and the community and I am thrilled to be a part of it all!

Media & Publications

SOCIAL MEDIA



facebook.com/EffieYeawNatureCenter/



instagram.com/effieyeawnaturecenter/?hl=en

Follow us on Facebook and Instagram to keep up to date latest happenings at the Nature Center and in the Nature Study Area, discover fun facts about plants and animals, and more!

NATURE BLOG

Did you know the Nature Center has a blog featuring fun articles about creatures, critters, and all kinds of life that can be found our region! The blog is also home to our new online environmental education program, ‘Ask a Naturalist’: Learn, create, and activate! Check it out:

sacnaturecenter.net/visit-us/nature-blog/

THE ACORN

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 here:

sacnaturecenter.net/arnha/acorn-newsletter/

PUBLICATIONS

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: sacnaturecenter.net/arnha/shop-books/



Rattlesnakes: Effie Yeaw's Most Misunderstood Creatures

Mike Cardwell

On a sunny August morning in 2016, I came upon a large male Western Rattlesnake on the move and about to cross the Woodland Trail in the Effie Yeaw Nature Study Area. Using the signal from a small radio transmitter implanted in his abdominal cavity, I was able to spot him before he detected me. I stood still about fifteen feet away, hoping to get some photos as he crossed the trail. Even adult rattlesnakes like this brute are susceptible to being killed by predators like Coyotes and Red-tailed Hawks, so they avoid moving across bare ground if they detect any nearby movement.

But almost immediately a lone visitor approached on the trail behind me. My odd-looking direction-finding antenna had his attention and I slowly turned and put my finger to my lips in the universal "be quiet" sign (In retrospect, that seems like an odd gesture, since snakes have no ears!). The gentleman got the idea and slowly joined me. A couple of minutes later, as I explained what was going on, my Male #37 glided out of the dry leaves and grass and crossed the trail, giving us a ringside seat to the natural behavior of a prowling rattlesnake – a welcome contrast to the scary defensive displays usually associated with the animals. Since August is outside their usual mating season, this guy was likely looking for a good place to ambush a ground squirrel pup or maybe a vole. Perhaps a mamma California Ground Squirrel had discovered him hiding near her burrow and harassed him with thrown soil and grass until he decided to look for a meal elsewhere – behavior that is well documented by several of my colleagues.

During my four-year field study at Effie Yeaw, I captured, measured, and marked every Western Rattlesnake (*Crotalus oreganus*) I could catch. It may be surprising to learn

that these rattlesnakes are frequently hard to capture. In fact, they rarely hang around to confront creatures as large as humans unless they are surprised in the open without nearby grass or rodent burrows into which they can quickly disappear. I implanted transmitters in only a few of the EYNC rattlesnakes but all that were captured and "processed" were marked with unique color combinations of acrylic paint, harmlessly injected into hollow rattle segments, allowing easy visual identification later.

Any rattlesnake encountered by EYNC staff or reported by the public around the visitor center, Maidu village, or parking lot, was captured by staff. During my study, snakes without paint in the rattle were saved for me to process while marked snakes were quickly released into the nearby oak woodland and a note was left for me about which animal it was and where it had been captured and released.

We found that individual EYNC rattlesnakes had well defined home ranges, with males occupying an area equivalent to about 8 1/2 NFL football fields. On the other hand, the average female home range equated to only about three NFL fields. Like many other kinds of animals, female rattlesnakes are found where there are resources like food and shelter, while males are

found where there are females. In the case of rattlesnakes, the males wander widely in search of the less mobile females during spring and fall, producing larger home ranges.

Near the end of the study, about half of my chance rattlesnake encounters (i.e., excluding animals with radios) were with the fifty-eight marked animals, leading to an estimate of a population of about 100 adult Western Rattlesnakes in



Rattlesnakes are not territorial but males will fight over a receptive female during courtship season. This is a wrestling match, with each animal trying to push the other to the ground; there is no biting. Photographer Erika Mitchell was lucky enough to witness and photograph this scene in October 2015 in the EYNC Nature Study Area. Although unseen, there is certainly a female in the grass nearby.



the 100-acre EYNC Nature Study Area. Juvenile rattlesnakes were not included in that estimate because few of them survive to become adults. The little guys can be plentiful just after birth in September and October but, at the size of pencils, they have many more predators than adults. By springtime, baby rattlesnakes are hard to find.

Even given the robust population, staff and regular visitors who spend lots of time on EYNC trails rarely see rattlesnakes, a testament to just how shy and cryptic they are. Outstretched rattlesnakes tend to react to danger quicker and at greater distance than coiled rattlesnakes, which usually remain still and rely on crypsis to avoid detection. Bites to people occur when they either accidentally disturb a rattlesnake by stepping or reaching where they cannot see (or haven't looked) or when they intentionally bother a rattlesnake. Fatalities from rattlesnake bites are rare in the United States (less than 1 in 1000) and most people avoid close encounters with rattlesnakes by being careful where they place their hands and feet and leaving rattlesnakes alone when they find them.

Learning more about the private lives of rattlesnakes – where and how they live, what they eat, and how they kill their prey, provides valuable data for researchers who design new therapeutic drugs modeled on components of the venom. I don't seek to turn people into rattlesnake lovers but I do work hard to dispel the many myths and misunderstandings long associated with rattlesnakes. As well-known herpetologist and educator Dr. Harry Greene once wrote:

"If you agree with me that our lives are richer for the existence of dangerous animals, that the Earth is wilder and more wonderful because of their presence, then learn what you can and tell others something good about rattlesnakes."



A male Western Rattlesnake on top of and courting Female #51 (yellowish and barely visible under his head) in March 2016. The lack of paint in the male's rattle indicates that he had not been previously captured.



Baby rattlesnakes eat small lizards until they are large enough to transition to rodents, but adults don't ignore lizards. This drama was hidden in thick grass on a Saturday morning about two feet from the edge of the EYNC Main Trail where dozens of visitors were passing by. Her radio allowed us to find and film her.

Mike Cardwell is a wildlife biologist who uses radiotelemetry to study the behavior and ecology of wild rattlesnakes. He and his wife, Denise Garland, were volunteers at Effie Yeaw Nature Center from 2014 through 2017, during which Mike studied the rattlesnakes in the EYNC Nature Study Area. Mike has an MS degree in Ecology, Evolution and Conservation from Cal State Sacramento and enjoys an appointment as adjunct researcher with San Diego State University. He is co-editor of *The Biology of Rattlesnakes* (2008, Loma Linda University Press) and served on the expert panel that revised snakebite treatment guidelines for the U.S. and Canada in 2015. He has a new non-technical book in press titled *The Mohave Rattlesnake and How it Became an Urban Legend*. His four-year study of Western Rattlesnakes at Effie Yeaw is chronicled in his blog, found at www.EYNCRattlesnakes.com.



Calling All Teens!

Motivated by inspiring others? We are too. Each season, Effie Yeaw Nature Center hosts camps for kids from ages 5 to 11 and we cannot do it on our own. Calling all teens to come volunteer with us for Summer camps. Whether you are interested in raptors, reptiles, invertebrates, trees, working with children, or simply being outside, there is something for you here at our camps. The topics and activities of our camps change daily so if there is a subject you love, would like to learn more about, or just enjoy getting outside, we would appreciate your help.

To us, volunteers are so much more than extra hands for set up and clean up. Having volunteers helps us know and ensure that these children will have the chance to get the most out of our camps by having available support. Our volunteers are there to interact with our campers, for our campers.

Volunteering for a camp at Effie Yeaw Nature Center is so much more than gaining volunteer hours or building your resume. While both of those can be a bonus, they cannot compare to the grand moment of watching a young mind tune into the incredible wonders right in our backyard. It does not take much to achieve the small goal of hearing a growing mind release a breath filled "wow" after discovering the beautiful nature around us and you can be part of that.

If you are interested, please contact our volunteer coordinator, Rachael Cowan at rachaelc@sacnaturecenter.net

Nature camp volunteers must be at least 14 years of age, enthusiastic about nature, animals, working with children, and have a positive attitude.



Showboat

Excerpt from *An American River Journal* by Peter Hayes



One of the more bubbly extroverts of the bird world arrived back in the Valley's streamed woodlands the other day. If the yellow-breasted chat's repertoire of caws, whistles, rattles and squeals seemed inspired, it was understandable. You'd feel like celebrating too if you had just come all the way from Panama or thereabouts under your own power.

Stand in the midst of thickets of willows, grapevines and blackberry brambles up from Folsom Lake's Sweetwater Creek. You'd swear that a half dozen songbirds were responsible for the chat's mad medley.

And the fact it's shy in other ways doesn't help clarify things. But eventually this biggest of all warblers hops into view on a dead branch, displaying its olive-green back, spectacle-like eye rings, and bright yellow breast.

The male is getting ready for the nesting season and he doesn't welcome intruders. So he puts on his strange act that includes singing while flapping his wings above his head, pumping his long tail, and making short flights with legs extended in wheels-down position. Something like a circus clown doing his one-man-band act.

The male and female chat will build a nest of grass in the bush and raise a family of three, four or five, foraging on a rich diet of worms and insects. By September they'll be on their way back to their winter home in the tropics, so enjoy their unmusical clamor while we can.



From An American River Journal, published by the American River Natural History Association (ARNHA), the non-profit supporting Effie Yeaw Nature Center. It features illustrations by ARNHA co-founder Jo Glasson Smith and nature essays by the late Peter J. Hayes, retired newspaper editor and ARNHA Associate Board Member. The book is available for \$9.75 at the Effie Yeaw Nature Center and selected bookstores. Visit sacnaturecenter.net/arnha/shop-books/ "Podcasts," to hear readings of the essays by the author.





Effie Yeaw Nature Center

A World of Discovery Awaits!



Join Us!



Summer Camps

June 22 — August 2

Ages 5 & 6 – 11

Kids discover the wonders of nature and create lifelong memories through hands-on exploration of the natural world.

Rafting, hiking, up-close experiences with animal ambassadors, games, crafts and more! Different themes and activities each week.

Learn more:

www.sacnaturecenter.net/education/nature-camps/

(916) 489-4918

Examine the world like a geologist, discover the wild world of invertebrates, become an “egg-spert” in egg laying critters, and so much more!

In our Nature Camps kids go on adventures, play games, make new friends, and learn about the fascinating natural world we live in! Each camp explores a unique theme through hands-on experiences and activities.

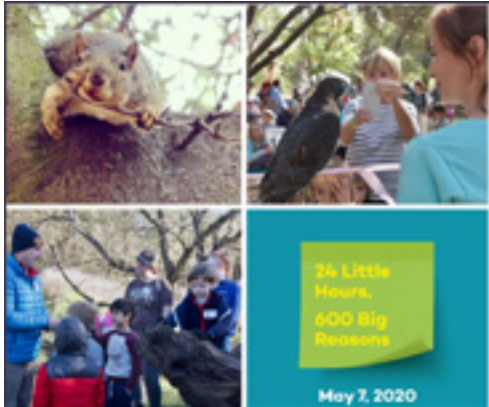
Pre-Registration is Required: sacnaturecenter.net/education/nature-camps/summer/



Big Day of Giving is Coming, May 7, 2020!

We are stronger together! Each year 600 regional non-profits come together to support each other during this 24-hour digitally driven fundraising campaign. The collective effort results in a large boost in support for non-profits and the people, animals, and places they serve.

With program and fundraising event cancellations, the Big Day of Giving is more important than ever. Get ready to give where your heart is on May 7th, from 12:00am to 11:59pm. Check out Effie Yeaw Nature Center's Big DOG profile! www.bigdayofgiving.org/effieyeaw




Click here to learn how to create your very own BDOG fundraising campaign!

Can't wait to get started?

You can amplify your impact by creating your very own BDOG fundraising page. Be sure to create your own digital campaign to rally your community around environmental education, wildlife, birds, plants or whatever it is you are most passionate about ~ it's fun and supports the non-profits you love.

Stayed tuned for fun campaign ideas on our BDOG2020 Event Page www.sacnaturecenter.net/events/other/event.html?EventID=67009

In the meantime, check out this YouTube video and learn how to set up your fundraising page!
www.youtube.com/watch?v=5HPrVP4Uw-A&feature=youtu.be



Effie Yeaw Nature Center
A Giving Guide
For nature lovers

Interested in becoming a sponsor for the Gala or another Nature Center fundraiser, event, or program? Learn how you support the growth of unique and personal relationships with the natural world in the Nature Center's Giving Guide.

cms.capitoltechsolutions.com/ClientData/EffieYeaw/uploads/GivingGuide_Web.pdf



Wishlist amazon

Have you ever experienced the joy of receiving a gift?

You might feel touched that someone in your life knows just what you want and cared enough about you to gift it.

Now, imagine being around 50 beings, both human and the critter variety, when the Nature Center receives a donated item from our Amazon wish list!

Sometimes the chosen items tell us where a donor's passion lies. The animal lovers may choose to supply basking bulbs for our cold-blooded critters while others may choose to purchase supplies for our Nature Camps. We even have folks who choose to support our office staff by supplying paper and stamps.

Regardless of the item you donate or its cost, all of us here at the Effie Yeaw Nature Center are incredibly grateful for your ongoing support! If you listen closely, you might even hear us cheering when the Amazon delivery truck pull up.

amazon.com/hz/wishlist/ls/23TXG2MFN4RIQ/ref=nav_wishlist_lists_1?encoding=UTF8&-type=wishlist



Donors - October through December 2019

- Iris Abbott in honor of Parker Stewart's Birthday
- George & Suzie Abbott
- Miguel & Cristina Acosta
- Robert & Doris Adam
- Doris Adam
- Jane Adan
- Reed Addis
- Mitch Adler
- John Albusche in honor of Parker Stewart's Birthday
- Emily Albusche in honor of Parker Stewart's Birthday
- Kelly Allen
- Brittney Alling
- Cristina Almeida
- Samira Al Qazzaz
- Nicole Amirehsani
- Cheri Anderson
- Kent Anderson
- Ellis & Barbara Andras
- Rebecca Andrews
- Andrews Giving Fund
- Barbara & Dennis Angelini
- Kristen Angelini
- David & Janet Armstrong
- Mark & Lisbeth Armstrong
- Janet Armstrong
- Rebecca Armstrong
- Paige Ashley & Fred Fix
- Ashley Maminto Family
- Carmen Avila
- John Bach & Beryl Michaels
- Bradley Baker
- Gail Bakewell
- Sara Baldwin
- Sarah Bancroft
- Franklin & Karen Banker
- Richard Barbar & Sandra Dunn
- Ken Barnes in honor of Tim Rosales' Birthday
- Mark Barry
- Karen Barsch
- Paul Barth
- Gail Basile
- Wendy Baty
- Kathleen Baxter
- Frances Baxter-Guigli
- Katie Bayard
- Amanda Bayard
- Liam Bayard Hunt
- Noah & Katie Baygell in honor of Kassberg family
- Shar Bear in honor of Smurfy Zarmene's Birthday
- Dwight Beattie
- Betty Becker
- Michael Bedard & Justine Hearn
- David & Christine Beeby
- Barbara Beeman
- Ona & Dan Belmont
- Laura Berard
- Christy Berger in honor of Parker Stewart's Birthday
- Norman & Robin
- Berkley In Honor of Gary Shaw
- John & Anne Berner
- Robert Bernstein
- Bob & Janene Beronio in memory of Carol Fulton Yeates
- John Berry in honor of Margaret Berry
- Bert & Cathy Betts
- Bill Bianco
- F. Thomas Biglione
- Nicole Bilaver in honor of Adrian K-B
- Robert & Sandi Billings Jr
- Barbara Binaco
- Karen Binsacca
- Christine Birkhead in honor of Mrs. Nancy Oprsal
- Diane Biro
- Willam & Nancy Bittner
- Betty Bloom
- Lynette Rae Blumhardt
- Hilde Bly
- Steve & Sharon Bogart
- Shelley Bole
- David Bolen
- Virginia Bolman
- John & Margaret Borkovich
- Melinda & Michael Bradbury in honor of Jordan & Jonathon Bradbury
- Elizabeth Bredberg
- Susan & Bradley Bristow
- Michael & Pamela Britton
- Eileen Brodie
- Linda Brooks Hanna in memory of Bob Hanna
- Doris Brown & William Patterson
- Deidre Brown
- Phyllis BrownYork
- Julie Brusca
- Dennis Bryerton
- Edward & Lisa Bubienko
- Sally Ann & Robert Buck
- Peggy Buckner
- Jean & Greg Burke
- Kendall & Lisa Burke
- Rob & Maureen Burness
- Kate Burns Hegelein
- Deborah Bustamante
- Julie Cahill in memory of Cyrus Cahill
- Diana Calvert
- Lora & Bruce Cammack
- Beth Campbell
- Mary Carboni
- Chuck Cardoos in honor of Parker Stewart's Birthday
- Michael Cardwell & Denise Garland
- Claudia Carey
- Jessica Carlton
- Agathe Carroll
- Jane Carroll Johnson In honor of Tim Rosales' Birthday
- Candace Castillo
- Donna Chang
- Libby Chase
- Elizabeth Chasse-Crouse
- Fugeniy Chekrijev
- Yi Chen
- Audrey Chrisco
- Ellen Chrismser
- Tom & Stephanie Christensen
- Jason Clark
- Jill & David Clark
- Louise Clark
- Mary Claus
- Margaret Clinton
- Lisa Close
- Robert Coates
- Linda Cochran
- Don Coelho
- Debbie & Jim Coffin
- Kathleen Cole
- Fran Coletti
- Alexandra Condon
- Dean Conrad in honor of Conservation
- Nancy Conrad in honor of Conservation
- Jerry Cook
- Betty Cooper
- Jeanne Corcoran
- Karl Cordtz
- Charlotte Cosulich
- Vivian & Lawrence Counts
- County of Sacramento/ DWR
- Stormwater Quality Grant
- Michael Covey
- Sam & Rachael Cowan
- Cynthia Cox
- John Cozen
- Nina Crone
- Austin Croom
- Jose Cueto & Anita Prietto
- Rebecca Cull
- Rosie Cullimore in honor of Heather Gabel
- Glen & Lynne Cunningham
- Nancy Dagle



- Carol Dahmen-Eckery In honor of Tim Rosales' Birthday
- Jeffrey & Janelle Daigle
- Gretchen Dariotis
- Chris Dariotis
- Edith Darknell Taylor
- Michael Darnell
- Sue & Rodney Davis
- Beth Davis-Dulla
- William Dawson
- Norene DeBruycker
- Susan & Thomas DeHart
- Richard Deletesky
- Robert Dell'Agostino
- Jackie Delu
- Jessica Denning
- Mirlita Dennis
- Department of Water Resources
- Anthony Deriggi
- Susan DeVore
- Melodye DeVries
- Timothy Dietler & Cynthia Monday
- Ellen Dillinger in memory of Bill Dillinger
- Darryl Disano
- Lisa Dobak
- Deborah Dodd
- Dora Dodson
- Ann Doersch & Stephanie Monzon
- Elizabeth Dolezal
- Shardool Doongursee
- Renee Dorr
- Charles & Nancy Doval in memory of Elaine Francis Yeates
- Hunt Drouin
- Eriberto & Monika Dulay
- Leilani Dunmoyer
- Sandra Dunn
- Cynthia Dunning & Christopher Jakle
- Valerie Duran
- Dorothy & Norman Eade
- Scarlet La Rue Edber in honor of Abigail Edber
- Harvey Edber
- Linda Eisenman
- Elaine Eisner
- Roslyn A Eliaser
- Richard Ellis
- Molly & Jeffrey Emslie in memory of Lynda Peddy
- Mark Erickson
- E.D. Eskridge & L.B. Van Beers in honor of Melanie Loo
- Glenda Espinal
- Alicia Etcheverry
- Ruby Sharon Evans
- Shana Fagnani
- Rick & Toni Fairall
- Nathan Fairman & Katherine Elliott
- Fabienne Farmer
- Rex & Cheryl Farmer
- Marc & Natalie Fenner
- Cornelia Ferrara
- Stephanie Finelli
- Betty Flanary
- Mike Flaningam
- Marilee Flannery
- Tova Fleming
- Mary Louise Flint
- Jacquelyn Fogle
- Diwata Fonte
- Geoffrey Ford
- Penelope Ford
- Richard Frink
- Eric Frisk
- Larry Fritz
- Marc Fugler
- Heather Gabel
- Theresa Gallagher
- Monica Gallen in honor of Peggy Berry
- Dick & Hildegard Galvin
- Carol & Patrick Gannon
- Virginia Gardner
- Barbara Gardner
- Mary Gaspari
- Ruth Gay
- Maureen Geiger
- Calvin Geller
- Fatih Gencer
- Cathy George in memory of Nick Goerger
- Janelle Gerber
- Barney Gerber
- Donald Gerigk
- Shira & Donald Gilbert In Honor of Jonathon Gilbert
- Nancy Gilbert
- Shira Gilbert in honor of Jonathon Gilbert
- Carole Girard
- Ted Glum
- Richard Gould
- Julia Gowin
- Robert Grannucci in memory of Elaine Yeates
- Gary Gravier in honor of Debby Gravier
- Aaron Gravvat
- Kathryn Gray
- Henry Rex Greene in honor of Tim Rosales' Birthday
- Nolan Greenhaw
- Tim & Celeste Grennan
- Kristi Greysen-Bates in honor of Tim Rosales' Birthday
- Arthur & Linda Grix
- Eli Groppo
- Rebecca Gross
- Jane Grossman
- Jeff & Debbie Gualco
- Sylvia Gude
- Amy Guis & Marvin Fenner
- Dante Gulle
- Aditya Gune
- Arthur Hackney in honor of Tim Rosales' Birthday
- Thomas & Janine Haka
- Charles Halnan
- Joan Hammond
- Matthew & Gail Hancock
- Bob & Linda Hanna in memory of Bill Hanna
- Mildred Hanson
- Gary & Susan Harbison
- Jill Harden
- Mae Harms
- Ed Harper & Susan Scott
- Heather Harris
- Bea Harris
- Craig Harvey in honor of Tim Rosales' Birthday
- Dale & Douglas Hawkins
- Heather Hayashi
- Stephen Hayhurst
- Kathi Hegelein
- Charlotte Henshaw
- Charlene Henwood
- Gregory Herrera & Sarah Stoltz
- Kelli Hill
- Karim Hirani
- Louise Hirsch
- Judy Hodgkins
- Rainer Hoenicke & Kathryn Lucas in memory of Carol Doersch
- Jenny Hoepner
- Emily Hogan
- Ronald Hoops
- George & Gail Hortin
- Dean Houghton
- Lexi Howard
- Richard & Mary Howard
- Peggy Hower
- Amanda & Keith Hubbard
- Marina Huettlinger
- Ellen Hughes
- Jennifer Hughes
- Elaine Hujambojoie in honor of Marilyn Escobar
- Claudia Hulbe in memory of Jo Glasson Smith
- John Huls
- Corinne Hume
- Jeannie Hunt in honor of Sandie Dunn
- Michael Hunt
- Christine Hunter & Gordon Nash
- Kimberly Ishihara
- Richard Isom
- Jacobsen Family
- Ijaz Jamall



- James & Susan McClatchy Fund of the Sacramento Region Community Foundation
- Sulay Jaramillo
- Jaurequi Family
- Janet Jewell
- Alice Jobe
- Keith Johnson
- Cyrus Johnson
- Hollyn Johnson
- Joey & Kathy Johnson
- Terrence & Deborah Jones
- Gerald Jones in memory of Georgia Jones
- Mona Jordan
- James Joye
- Holly Juch
- Sarah Kalas
- Christine Kapp
- Virginia Kaser
- Corey Kashiwagi
- Kathy Kayner
- Herbert & Elizabeth Kelly
- Ann Kempees
- Peggy & Bruce Kennedy in memory of: Fred Andrews, Burt Hodges, William McCrory, Jim Moose, Ellen Pate, John Scull, Elizabeth Solomon
- David Kenward
- Nancy Kepner
- Kathy Kerdus
- Jennifer Kerr
- Ani Khatcherian in honor of Smurfy Zarmene's Birthday
- Saskia Kim
- Linda Kimura
- Claudia Kirkpatrick
- Larry Klink
- Susan Knight
- Loni Koch in honor of Heather Gabel
- Carolyn Kohn
- Pete Kokkinis
- Iaroslav Kolesnikov
- Jennifer & Ben Kopperl
- John Koppes
- Suzanne Krale in memory of Charlene Snow & Elaine Yeates
- Daniel Kramer In honor of Tim Rosales' Birthday
- Nate Kropp
- Carol Kruidenier Luery
- Nanci E. & Matthew M. Kuzins
- Michael Kwong
- Scarlet La Rue in honor of Abigail Edber
- Sandra Lane
- Jim Lanier
- Karon Larson
- Elaine Lauer
- Dick & Carol Laursen
- Mary Ann Lawrence
- Angela Layton
- Karla LaZier
- Anderson LE
- Anna Leach-Proffer
- Margaret Leavitt
- Sara Lee in honor of Tim Rosales' Birthday
- Gloria Lee
- Lisa Lee
- Marjorie & Les Lehr
- Krystin Leonhardt
- Beverly Lewis
- Kari & Randel Lewis
- Christina Lewis
- Barbara Lezon
- Marya Liberty
- Lillian H. Nelson Living Trust
- Dennis Link
- Eric Liskay
- Kim Lloyd
- Rod Loeffler & Carol Berry
- Ken Lopez Maddox in honor of Tim Rosales' Birthday
- Susan Lorimer & Robert Bruns
- Mia Losh
- Thomas Louis
- Michele Lozano
- Randal Lucas
- Mark & Debby Ludwig
- Carol Luery
- Jill lute in honor of Heather Gabel
- David & Julie Lydick
- Jennifer Lystrup
- Katie Mack
- Nancy Mackenzie
- Donna & Paul Madeira
- Jack Mador
- Terry Mah
- Nick & Kim Majetich
- Jessie Mapes in honor of Bob Mapes
- Mary & Joseph Maret
- Helene Margolis
- Linda Marks
- Shelley Marlowe in honor of Sandie Dunn
- Stephanie Martinez
- James & Judith Mathews
- David & Joan Matsler
- Jacqueline Marie Matson
- Bennet & Sigrid Mattingly
- Lyndy May
- Gregory & Michelle Maynard
- Susan Mazrolle
- Dominika Mazur
- Joann McAllister
- Tessa McCarthy
- Curt & Fatima McCasland
- Charles McClain
- Bob McCleary
- Kathleen McConville
- Jim McCurley
- Timothy & Janie McGinn
- Sandra McGinnis
- Phyllis Mcgrath in honor of Heather Gabel and Parker Stewart's Birthday
- Matthew McGregor
- Carol McKenzie
- C R McKenzie PHD
- John McKeon
- Bernard & Norma McNamara
- Elizabeth McNamara
- Myra McPherson
- Sylvia Mae Mehlhaff
- Dan Meier
- Linda Melching
- Hunter Merritt
- Mary Messenger
- Michele Metaxas in memory of Peter Hayes
- Jodie Mexas
- Patricia Michael-Evieth
- Midge in honor of Samantha Thomas' Birthday
- Joyce Mihanovich
- Kai Miller
- Dana Miller-Blair
- Robin & Marilyn Mitchell
- Lori Miyasato
- Roxanne Moger
- William Moler
- Don & Margaret Mongeau
- Linda Moniz
- Michael & Elizabeth Monnot
- Aaron Montag
- Michelle Monteforte in memory of Roxy Monteforte
- Soung Moon
- Kahea Mooney
- Barbara Moore
- Kathy Moore
- James & Helen Moorefield
- Lisa & Thomas Morrison
- Ryan Mundschenk
- Anne Murch
- Judith Murray
- Eric & Meegan Nagy
- Emily Nahat
- Lillian Nelson
- J. M. Nemmers
- Mark Neuburger
- Jean Newell
- Cody Newport
- Deborah Newton
- James & Melanie Nguyen



- David & Lenore Nice
- Lestelle Nichols
- Mark & Jamie Nichols
- Barbara Nicholson
- Robert & Rebecca Norris
- Cheryl Noss
- George Nyberg
- Therese Obagi
- Cherie O'Boyle
- Mallory O'Connor
- Rose O'Grady
- Rosemary O'Grady in honor of Viola
- Alison Olmstead in honor of Samantha Thomas' Birthday
- Kim Olsen
- Janet Olson
- Judith Olson-Lee
- Lawrence & Judy Orcutt
- Duane Orzol
- Mircea Ouatu-Lascar
- Karen Owen
- Pawel Pachniewski
- Christopher Papouchis
- Diana Parker in honor of Peggy Kennedy
- Muriel & Robert Parker
- William Patterson
- Gerald & Barbara Pauly
- Elizabeth Pawlowich
- Michael & Jill Pease
- Jim Peddy
- Personalized Adventures LLC dba Stuffed Duffel
- JoAnn Peter
- Lisa Phenix
- Phenix Family
- Dennis & Gail Philippart in memory of Ryan Philippart
- William Phillips
- Lynn Pinkerton
- Kendra Plat
- Christy Porter
- Aaron Potnick & Jaclyn Pasko
- Pamela Price
- Prietto Cueto Fund of the Sacramento Region Community Foundation
- Alyssa & Aaron Prohofsky
- Morgan Pulleyblank
- Kathryn Pyers
- Werner & Sabina Raab
- Noreen Rademacher
- Amy Ramirez
- Diane Ramsey
- Adam Randolph
- Ranh Family
- Linda Rau
- Sherry Reed
- Nancy Reitz
- Ellen Reller
- John Reynolds Koppes
- Janet Rezos & Steve Woodward
- Ruth Rezos in memory of Bill Dillinger
- Karin & Eric Richardson in memory of Mrs. Elaine Yeates
- Marisol Richmond
- Jesse Ridings
- Brenda Robbins in honor of Ray & Shirley Willey
- Jan Roberson
- Daniel Roberts
- Katherine Roberts
- Mary Ann Robinson
- Peter Rodgers
- Gustavo Rodriguez
- Rafael Rodriguez
- Camille Rogado
- Cindy Rogers in honor of Parker Stewart's Birthday
- Margaret Rogers in memory of Dan McQuillen
- Jason & Amy Rogers
- Linda Rosenberg-Jones
- Elizabeth Ross
- Jennifer Rousseue
- Sharon & Bob Ruffner
- Steven Rutledge
- Rebecca & Lance Ryen
- Kathleen Sabatini
- Sacramento Audubon Society
- Sacramento Municipal Utilities District
- Kim & David Safdy
- Tovah Salcedo
- Jim & Claudia Sandberg-Larsen
- Laura Santos
- Brad, Erin & Elliott Satterwhite
- Andrew Sawyer & Carol Binham
- Cecelia Sayer
- Charlotte Sayllors
- Rob Sbisa in honor of Samantha Thomas' Birthday
- JaNahn Scalapino
- Samuel & Pat Scarlett
- Marlies Schade
- Elaine Schaedler in memory of Elaine Yeates
- Gwen & Earl Schoen
- Joseph Schofield
- Kathy Schulz
- Amy Schweitzer
- Doug & Teresa Scoles
- Katie Scott in honor of Tim Rosales' Birthday
- D.H. & D.L. Scott
- Lanna Seuret
- Jaimey Sexton in honor of Tim Rosales' Birthday
- Sheila Kleats Adams
- Benjamin Sher
- Patricia Simms
- Carol Siu
- Susan Skinner
- Robert Smith & Claudia Charter
- William Smith & Terry Mizuhara
- Cindy Smith
- Julia & Christopher Smith
- Lisabeth Smith
- Robert Smith
- Cara Smith Gueye
- Penny Soderlund & Matt Johns
- Richard Soehren
- Christine Somach in honor of Sandie Dunn
- Joe Soots
- Douglas Souvignier
- William & Anne Marie Spaller
- John & Janice Speth
- Eileen Spoor
- Rebecca Starr
- Laurence Stearns
- Jane Steele
- Allison Stelly
- Margaret Stelmok
- Morna Stephens
- Hansine Sterken
- Rick Sterner
- Jan Stevens
- Jeanine Stevens
- Parker Stewart
- Sabrina Stewart in honor of Parker Stewart's Birthday
- Kat Stewart
- Cordel Stillman in memory of Effie Cummings Yeaw
- Ellen Stillman
- Carol Stirnaman
- Patricia Stock
- Sarah Stoltz
- Todd & Elizabeth Stone
- Perry Stout
- Robert & Sherry Stuart
- Alexis Stubbs
- Gail Sullivan
- Worth & Janet Summers
- Carol Sutton
- Nancy Sweeney
- Andrea Szalankiewicz
- Norma Tabatabai
- Daniel & Janet Tankersley
- Paul & Gay Tanner
- Karen Taranto
- Lawrence Tasker
- Edith Taylor
- Hadley Teater
- Chrissy Teater
- Addison Teater
- Paul Tebbel
- Catherine Tedesco



- Jaclyn & Jon Teofilo in honor of Heather Gabel
- Casey Terhaar in honor of Parker Stewart's Birthday
- Julianna Tetlow in honor of Tim Rosales' Birthday
- The James and Susan McClatchy Fund of the Sacramento Region Community Foundation
- The Randolphs
- Ned Thimmayya
- Amanda Thimmayya in honor of Ned Thimmayya's Birthday
- Lava Thimmayya in honor of Ned Thimmayya's Birthday
- Craig & Micheal Thomas
- Patricia Thompson
- Bridget Tibbs
- Terry Tice
- Barbara Tincher
- Racheal Toirac strider in honor of Samantha Thomas' Birthday
- Walter Trivett
- Sandra & Daniel Tschannen
- Keith & Nancy Turner
- Patricia Turner
- Colleen Uhlenhop in honor of Mick and Linda Uhlenhop
- Robert Ulrich
- UMJ
- Karen Vaden
- Lynn White
- Bill White Jr.
- William White Jr.
- John Whitelaw
- Shirley Wilkerson
- Mary Wilkinson
- Kate Williams & Thomas Gohring
- Dan Williams
- Joseph Williams
- Liz Williamson
- Louis Williamson
- Lee Willoughby
- Gwendolyn Willson
- Dan Winkelman
- Sheila Wolfe
- Cyrus Wong
- Patty Wood
- Lucinda Woodward
- Beverly Wright
- Kevin & Mackenzie Yamamura
- Lynne Yamane
- Danielle Yeti
- Mary Yung
- Smurfy Zarmene
- Patricia Valentine
- Kelly Van Gaasbeck
- Deona Vastine-Sharp
- Leslie & Margaret Veldman
- Elizabeth villanti in honor of Ned Thimmayya's Birthday
- Steven Vilter
- Rachel vining in honor of Ned Thimmayya's Birthday
- Virginia Volk-Anderson
- Judy Vollmer
- Elizabeth Wade
- Dorothy & Patrick Wagner
- Stephen Walker & Sabrina Schultz
- Pam Walker
- Diana Wallace
- John Walton
- Katie Walton
- Ann & Jerry Ward
- Lori Ward
- Amy Ward
- Stephen Warth
- Jamie Washington
- Deborah Watson
- Eric Webb
- Christine Weinstein
- Laurie Weir & Jacek Lisiewicz
- LouAnn Weiss
- Cathy Weitzner
- N. Wesolowski
- John & Nancy Westlund
- Tracy & Stephen Wetzel
- Jane Wheaton
- William White in honor of Nancy Oprsal
- Virginia White

