

THE ACORN

American River Natural History Association Quarterly Magazine – Spring 2024



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President's Message, Spring 2024



Joey Johnson

I am honored to return as President of the American River Natural History Association (ARNHA) Board of Directors. We all are grateful to Laurie Weir for taking the reins in 2019 and leading the Board through some very challenging times. She has decided to take time off from the Board to have more time for her family.

My intent is to serve for a couple of years until other members reach a point in their lives where they can step into this position. I look forward to working with the Board and staff of the Effie Yeaw Nature Center as we continue to provide enriched and meaningful experiences in nature.

In addition to Laurie, other changes to the ARNHA Board include the retirement of long-serving members Bud Banker and Margaret Leavitt. This year we welcome new board members Eric Ross and Greg Dewey. The Board meets at 6:30 on the third Wednesday of most months. Anyone who wishes to attend is welcome. People interested in serving on the Board or supporting the Nature Center in other ways can get more information by emailing info@sacnaturecenter.net.

The Nature Center is a busy place. Our Holiday Sale was a great success and winter camps were filled with young campers having fun in nature. Spring events will include our annual Bird and Breakfast events and the Spring Gala with some surprises along the way. Check your emails, *The Acorn*, and our [website](http://www.sacnaturecenter.net) to stay current on wonderful opportunities to experience nature up close.

We said farewell to some staff as they have transitioned into new endeavors and welcome new team members. The current staff is dedicated to making the Nature Center a wonderful place for people of all ages and backgrounds to experience nature. We continue to have a robust volunteer community and without them, we could not provide all the programs, events, and exhibits that we do. Volunteering is such a rewarding experience and there are so many ways at EYNC to engage and be helpful.

As we begin a new year, I am excited to think of all the traditional and new activities coming for all to experience at the Nature Center. There isn't anywhere else in our area that offers so much peace, beauty and excitement of new learning as the Effie Yeaw Nature Center. If you need a place to unwind from some of life's tensions or just want to enjoy a stroll, come visit us.

One of my favorite quotes comes from Henry David Thoreau. "In wildness is the preservation of the world."

Come share our wildness with us.

-Joey Johnson



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Cover: The gray buckeye butterfly (*Junonia grisia*, previously known as the common buckeye, *J. coenia*). Photo by Kathy Keatley Garvey.

Butterflies in Decline

By Mary Louise Flint

Over the last decade or two, scientists in many parts of the world have documented examples of declining insect numbers—both in numbers of species (species richness) and in the number of individuals of each species (population levels). Habitat loss, pesticide use, and climate change are usually identified as the main contributing factors, although circumstances vary among insect species and location.

For almost 50 years, UC Davis Professor Emeritus Art Shapiro has been tracking northern California butterfly populations in a transect that stretches from the Suisun Marsh through the Sacramento Valley and up into the foothills and the Sierra Nevada mountains. The survey has tracked over 150 species at 10 locations with samples taken every two weeks during flight season. This incredible data set documents a decline both in species numbers and population levels throughout the survey. Impacts on individual species vary, with a few increasing over time.

The low elevation sites in the Sacramento Valley began to show clear signs of decline in species richness by the mid-1990s (Figure 1). Land development in Rancho Cordova and north Sacramento was positively correlated with the reduction in butterfly species. Researchers attributed these declines in the valley primarily to habitat loss rather than climate change at this time.

In contrast, the number of species found at the highest elevation site increased in the early decades of the study. The native habitat at this site was largely undisturbed. The increase in the number of species at higher elevations was correlated with an increase in maximum temperatures. Apparently, as temperatures warmed, some butterfly species expanded their range and survived at higher elevations than in the past.

A declining trend in species richness started to become apparent in the foothill and higher elevation sites (except for the very highest) after a period of severe drought and record-setting high temperatures in 2011-2015. Not only were maximum daily temperatures increasing, the minimum daily temperatures also increased, leading to warmer nights. The rise in nighttime minimum temperatures was greater at higher elevations than at sea level. Although butterflies emerged to fly earlier in the spring, the date of the last flight was earlier as well, leading to shorter flying windows for butterflies at the higher elevations. Less flying time means shortened periods for courtship, mating, and reproduction and, thus, fewer offspring. In addition, warmer and drier conditions are associated with poorer productivity of native montane plants, the primary food source for butterflies, and this may be contributing to declines as well.

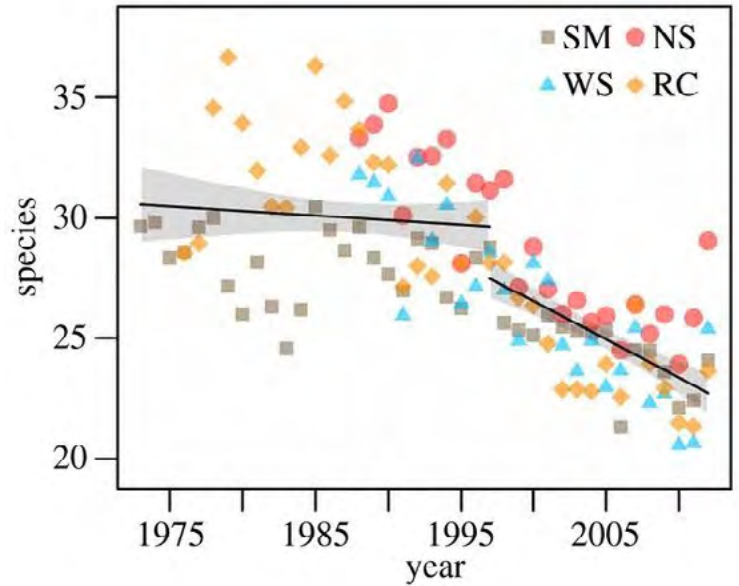
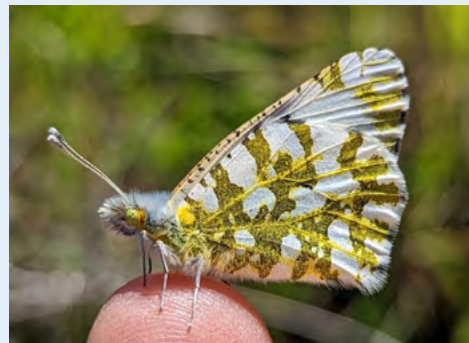


Figure 1. Decline in number of butterfly species seen each year at Shapiro Sacramento Valley study sites 1975-2010. SM=Suisun Marsh NS=North Sacramento, WS=West Sacramento, RC=Rancho Cordova. From: Forister ML et al. 2016 Increasing neonicotinoid use and the declining butterfly fauna of lowland California. Biol. Lett. 12: 20160475. royalsocietypublishing.org/doi/10.1098/rsbl.2016.0475.

Large Marble, *Euchloe ausonides*

The large marble was common in the Sacramento Valley throughout the 1980s but crashed fairly suddenly. It feeds on mustards and had two generations a year. Art Shapiro states that it no longer occurs at any of his Sacramento Valley survey sites but can still be found at upper elevations.



Photograph © Elliot Gunnison
CC-BY-ND <https://inaturalist.lu/photos/268895177>.

*See Plot Graph Note below.

*PLOT GRAPH NOTE: Plot graphs for the individual butterfly species indicate the fraction of days each species was seen each year at Art Shapiro's Rancho Cordova site. Thus, a reading of 0.4 on the Y-axis means this butterfly was sighted on 40% of the visits. The graphs are reproduced from elizagrames.shinyapps.io/butterflyRisk/, which is an appendix to Forister, et al. (2023) listed in the acknowledgments.



Three of Shapiro's sample sites are relatively close to our nature area—Rancho Cordova (RC) near the American River across from Sacramento Bar, North Sacramento (NS) on the American River near CSUS, and West Sacramento (WS) in the Yolo ByPass near the causeway. (The Rancho Cordova site is closest and most similar to Effie Yeaw in habitat.) A close study of the data collected at these sites between 1988 and 2010 showed that summer minimum temperatures and fall maximum temperatures increased significantly and precipitation decreased. During this time, species richness tended to decrease after years of high temperatures and reduced precipitation. Figure 1 shows the decrease in species richness at these sites from 1975-2010.

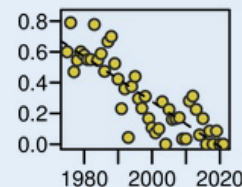
The years 2011-2015 were a period of extreme drought and record-setting high temperatures in California. During this period, surveys at most higher elevations showed a reduction in both species richness and abundance, while butterfly populations in the valley actually increased. Researchers suggested that the higher temperatures caused butterflies to start flying (and thus reproducing) earlier in the spring. While butterflies at higher elevations stopped their flight season earlier than in the past, those in the valley did not and as a result had a longer reproductive season. Most valley butterfly species have multiple generations and often a wider range of host plants (including weedy species), which may have allowed them to survive and even thrive during an extended warm season.

However, the good news about the upswing in butterfly numbers was short-lived. Since 2015 populations of most butterflies in the Sacramento Valley appear to be decreasing, although some are stable or show fluctuations from year to year like the painted lady (*Vanessa cardui*) and the gray buckeye (*Junonia grisia*, previously known as the common buckeye, *J. coenia*). Several species have either become locally extinct or almost extinct in Shapiro's sampling areas since he started surveying in the 1970s. Table 1 lists species that are struggling or disappearing in our area. The well-known monarch butterfly (*Danaus plexippus*) is one of these, but there are many other species at risk! Table 2 lists species that seem to be doing well at present. The illustrations accompanying this article give examples of the status of some local butterflies.

It is difficult to predict the future for individual species of butterflies, but as a group they are clearly suffering. A comprehensive analysis (see Forister et al. 2021 *Science* reference below) noted a pervasive decline in numbers of butterflies in the western U.S. equivalent to a 1.6% annual reduction in butterfly numbers over the last 40 years. Climate change is a big contributor but so are loss of habitat and use of pesticides. Citizens can help by providing plants that support butterflies and avoiding use of pesticides. Butterfly sight-

West Coast Lady, *Vanessa annabella*

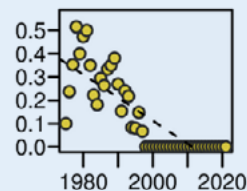
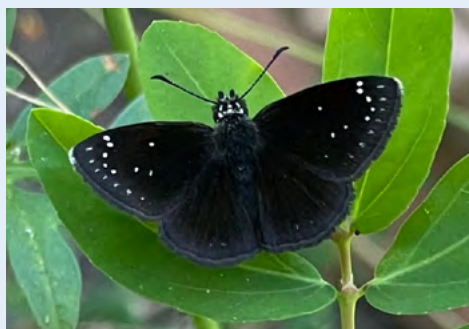
Once one of the most commonly-seen cool season butterflies in our area, the West Coast lady has experienced a serious decline in numbers over the last decade and is now rated as the butterfly at most risk in the western U.S. West Coast lady caterpillars feed on mallows, and butterflies seek nectar from many flowers including rosemary, Escallonia and Salpichroa in gardens. It has a wingspan of 2 to 2.5 inches. The West Coast lady is often grouped with two related and similar-looking butterflies as "painted ladies". The true painted lady, *Vanessa cardui*, is still fairly common in our area most years, although its numbers have declined as well.



Photograph © Kathy Keatley Garvey. *See Plot Graph Note on page 2.

Common Sootywing, *Pholisora catullus*

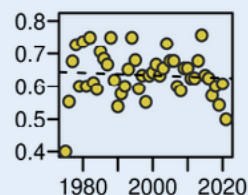
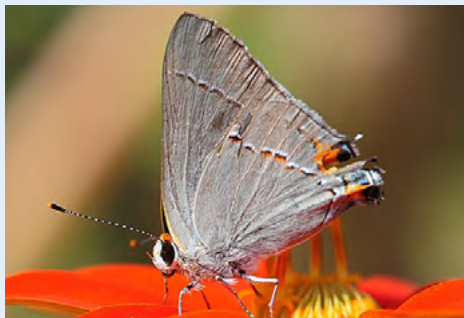
For many years this dark-colored skipper was a regular visitor, but its populations plunged in the Sacramento area in the 1990s. It is still found at times but hasn't been sighted at the Rancho Cordova site for two decades. It is a small butterfly with a wingspan no larger than an inch. Caterpillars feed on pigweeds and other amaranths, which are still abundant, so scientists are baffled about the cause of its decline.



Photograph © Ellen Dillinger CC_BY_NC www.inaturalist.org/photos/310759775. *See Plot Graph Note on page 2.

Gray Hairstreak, *Strymon melinus*

Often seen in the Effie Yeaw gardens, the gray hairstreak is associated with many host plants. It is a small butterfly with a wingspan no larger than an inch. Like most other hairstreaks, it has small "tails" on the hindwings. A black-orange eyespot is at the base of its tails. The population of this butterfly goes up and down but is fairly stable in our area. The similar-looking California hairstreak, *Satyrion californica*, is also observed on the yarrow in our gardens.



Photograph © Kathy Keatley Garvey. *See Plot Graph Note on page 2.



ings entered into iNaturalist were used in some of the assessments reported here, so keep up the good work of recording what you see in our Nature Study Area and beyond.

Mary Louise Flint, Ph.D., is a docent at EYNC and Professor of Cooperative Extension, Emerita at the Department of Entomology and Nematology at UC Davis.

Acknowledgments: Most of the background material for this article came from research carried out by the Art Shapiro team at UC Davis and Matt Forister's team at the University of Nevada, Reno. See the Shapiro Butterfly web site at <https://butterfly.ucdavis.edu/> and Matt Forister's web site at <https://sites.google.com/site/greatbasinbuglab/> for more information about the surveys, butterflies and lists of publications. Also see the referenced article in *Science*: Forister et al. (2021) "Fewer butterflies seen by community scientists across the warming and drying landscape of the American West." *Science* 371: 104201045 (2021) and Forister et al. 2023. "Assessing Risk for Butterflies in the Context of Climate Change, Demographic Uncertainty, and Heterogeneous Data Sources." *Ecological Monographs* 93(3): e1584, which is the source of the butterfly plot graphs and also includes risk rankings for individual western butterfly species.

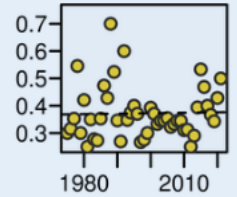
TABLE 1. SOME LOCAL BUTTERFLY PERCEIVED TO BE STRUGGLING
<i>Coenonympha tullia</i> —California ringlet*
<i>Danaus plexippus</i> --Monarch
<i>Euchloe ausonides</i> —Large Marble*
<i>Lycaena xanthoides</i> —Great copper
<i>Pholisora catullus</i> —Sooty wing
<i>Polites sabuleti</i> —Sandhill skipper
<i>Pyrgus scriptura</i> —Small checkered skipper
<i>Satyrrium sylvinus</i> —Sylvan hairstreak
<i>Vanessa annabella</i> —West Coast lady

*This species is locally extinct at the Rancho Cordova site

TABLE 2. SOME LOCAL BUTTERFLIES PERCEIVED TO BE DOING WELL
<i>Agraulis vanilla</i> —Gulf fritillary
<i>Battus philenor</i> —Pipevine swallowtail
<i>Erynnis tristis</i> —Mournful duskywing
<i>Hylephila phyleus</i> —Fiery skipper
<i>Ochlodes sylvanoides</i> —Woodland skipper
<i>Papilio rutulus</i> —Western tiger swallowtail
<i>Poanes melane</i> —Umber skipper
<i>Strymon melinus</i> —Gray hairstreak

Pipevine Swallowtail, *Battus philenor*

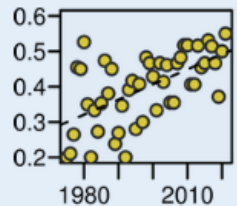
The elegant pipevine swallowtail is often abundant at Effie Yeaw. Its caterpillars are black with distinctive red spines and feed only on the pipevine plant, which grows in shady spots in our oak woodland. Butterflies have a wingspan of 3.5-4 inches and can be spotted from early spring to autumn but are more common before mid-July. Populations of this species have stayed fairly consistent over the decades of monitoring, although some decline has been noted in the last year or two.



Photograph © Kathy Keatley Garvey. *See Plot Graph Note on page 2.

Western Tiger Swallowtail, *Papilio rutulus*

A graceful visitor in our woodland, the western tiger swallowtail can be observed nectaring from a wide range of flowers in native and cultivated gardens. With a wingspan of up to 5.5 inches, it is one of the largest butterflies you will see at Effie Yeaw. Caterpillars feed on leaves of a variety of deciduous trees including sycamore, willows, poplar, and cottonwood. It is one species that is doing very well in the Sacramento Valley and has not been in decline.



Photograph © Joey Johnson. *See Plot Graph Note on page 2.



What We Are Doing About Climate Change

by Kari Bauer and Melanie Loo

We have experienced another year of reminders that climate change is upon us—record hot weather, more extreme storms, warming seas, more wildfires and drought. It is easy to feel overwhelmed. What can one person do to reverse the trend? Can my actions really make a difference?

One good way to start to inch forward is to look to our community and see how those we trust are responding to the challenge. With that in mind, we invited members of the Effie Yeaw Nature Center (EYNC) community to share their actions and thoughts about combating climate change by filling out a climate change questionnaire at the October 18, 2023 EYNC annual volunteer meeting. Five individuals—Dean Conrad, Jackie DeLu, Rich Howard, Marti Ikehara, and Mark Lum—agreed to speak with us to share more about what they are doing and their ideas form the basis of this article.

While all our interviewees share a great love of the environment, each had some special incentives to take action. Dean Conrad spoke of her awakening to the issues of environmental degradation during Earth Day in 1970 and her desire to leave a better place for her children and grandchildren.

Jackie DeLu also talked about the 1970s when she was teaching middle school students. She became familiar with environmental issues from her curricular materials and decided she needed to practice what she was teaching.

For Mark Lum a growing discomfort with his knowledge of the greenhouse gases produced by air travel, plus his problem-solving nature, spurred him to find ways that he might compensate for having to fly to visit relatives. Marti Ikehara also wrestled with her desire to travel internationally and the effects of flying. In addition, Marti worked at National Oceanic and Atmospheric Administration (NOAA) and observed data on sea levels rising over the last 20 years.

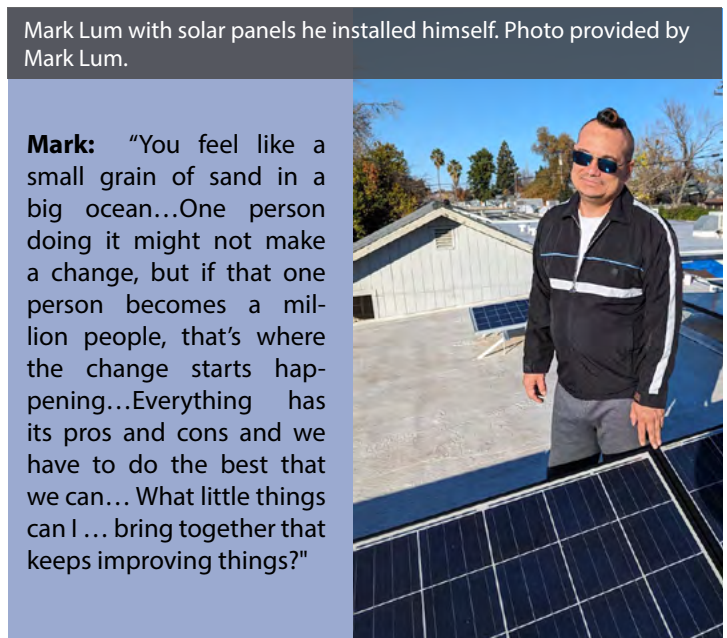
Rich Howard, an avid birder, was alarmed by the demise of native bird species on the island of Kauai in the early 2000's. He found that as temperatures rose, invasive and disease-carrying mosquitos moved to higher altitudes and brought fatal infectious diseases with them to native birds. This was part of a larger problem of climate migration, wherein species move in response to climate change and create unanticipated interactions with other species.

The responses of our interviewees were multi-pronged. In the area of transportation, almost all have purchased electric vehicles to reduce fossil fuel combustion. In addition, some have planned their driving trips to minimize their miles driven, while others have relied more on biking, walking, and



Jackie DeLu with her solar-powered clothes dryer. Photo by Kari Bauer.

Jackie: "This plastic thing made a big difference; it made a huge difference. So, talking to my friends and neighbors and letting them know it's not a difficult thing to do. You don't have to do the expensive solar panels, but if you can afford it, why not? That's your big contribution."



Mark Lum with solar panels he installed himself. Photo provided by Mark Lum.

Mark: "You feel like a small grain of sand in a big ocean...One person doing it might not make a change, but if that one person becomes a million people, that's where the change starts happening...Everything has its pros and cons and we have to do the best that we can... What little things can I ... bring together that keeps improving things?"



mass transit. Flying still remains a knotty problem. Since there are still few options for traveling long distances in a short time, none has given up flying. But they are mindful of the cost to the environment and earnest in compensating by reducing greenhouse gas emissions in other areas of their lives.

Around their homes almost all have added solar panels and have planted native gardens with plants adapted to local conditions. Many have compost piles so that organic wastes can decompose aerobically to reduce the amount of waste in landfills where decomposition is primarily anaerobic. Anaerobic decomposition produces methane gas, which is over 80 times more potent than carbon dioxide in trapping heat over the short run. Other home and landscape management decisions can make a difference. Marti has maintained mature trees around her house for carbon capture and cooling as well as esthetics, while Mark has been careful to select “eco-friendly” building materials for his projects.

Rich found that better insulating his house reduced heating and cooling needs and that investing in an electric heating/cooling system further cut his dependence on fossil fuels. He also adopted a more plant-based diet. At first his dietary choice was for health reasons. But he also realized that a decreased demand for livestock reduces animal methane and carbon dioxide production and reduces the conversion of forested to grazing land.

Dean switched to an electric stove and employed passive “climate control” methods. By clearing the outside area around her foundation, having dark floors, and installing well placed curtains, she can manage her home’s heat gain and loss. This reduces energy needed to actively warm and cool her house. Jackie hangs her laundry out to dry, rather than using a dryer, and she buys household items in bulk, to reduce fossil fuel use in packaging and distribution.

Our interviewees all had actions of which they are particularly proud. Marti regularly purchases carbon offsets for her air travel. These are extra fees that are used to support groups working to remove carbon dioxide from the atmosphere and thus offset the emissions from combusted jet fuels. Planting trees and restoring wetlands are two examples of offsetting activities supported. Dean enjoys talking with people who stop to admire her native garden. She provides information about how native plants help capture carbon dioxide from the atmosphere while using little water and few amendments. Mark also delights in sharing his love of native plants with neighbors and in finding many ways to combat climate change. He has questioned SMUD about their policies, attended Earth Day events, and participated in Climate Change demonstrations.

Rich Howard charging his electric vehicle. Photo by Kari Bauer.

Rich: “One person is not going to solve this. It takes a lot of little things by a lot of different people...I certainly have hope...the solutions exist, and it’s just the political will that’s lacking.”



Marti Ikehara and her solar panels. Photo by Kari Bauer.



Marti: “I have a science background; I worked for NOAA. We talked about rising sea levels as a consequence of what we called in those days “global warming” but now call climate change. For those 20 years I worked with tidal data, that was part of my job. I could see the writing on the wall.”



Jackie has a plastic recycling project that excites her. Through her work with the Carmichael Kiwanis Club, she learned that the Trex Corporation will accept recycled film plastic, which are the thin sheets often used to wrap pallets or cartons. When a group collects 500 pounds of film plastic, Trex will accept the plastic and donate a bench honoring the group in return. Not only does recycling of plastic reduce the need for fossil fuel extraction and combustion, but the activity of participating in the project brings people together and raises people's awareness and sense of agency.

Rich related a very satisfying experience he had helping to organize and participating in a Climate March prior to the 2015 Paris Climate Talks. The march went from the State Capitol to the confluence of the American and Sacramento Rivers. Along the way were informational stops, where people learned about climate change, native perspectives, actions they could take, and more. He continues to be encouraged by his participation in groups like the Citizens Climate Lobby, which includes a diversity of people and ideas.

Our interviews with these members of the EYNC community provided many reminders of the ways individuals can and do act to combat climate change. It was heartening to hear how committed they are to caring for our natural environment in ways big and small. Their actions and words address a finding of the Fifth National Climate Assessment:

"each increment of warming that the world avoids—through actions that cut emissions or remove carbon dioxide (CO₂) from the atmosphere—reduces the risks and harmful impacts of climate change. While there are still uncertainties about how the planet will react to rapid warming, the degree to which climate change will continue to worsen is largely in human hands."

Kari Bauer is a longtime volunteer at EYNC and a community advocate for addressing climate change. Melanie Loo, Ph.D. is a retired Professor of Biological Sciences at CSU Sacramento and volunteers at EYNC as a trail steward and a member of the Habitat Restoration Team.

Dean Conrad with her native plants sequestering carbon. Photo by Kari Bauer.



Dean: "I do have children and grandchildren and I do see that everything I do has an impact on the world, and therefore a future impact on them. When speaking of her now grown children who are environmentalists, she noted: They got the message when they were young, and they stuck with it."

What's Going on at the Nature Center?

Effie Yeaw Nature Center sponsors many types of activities for nature-loving adults and children including Saturday and Sunday nature talks and hikes, reading programs for children, a new book club for adults, and many other events. Our Under the Oaks Book Club, a free program for adults and teens, will be meeting on the first Sunday of every month at 11AM. We are also pleased to be offering events as part of our Speaker Series, as well as the annual Bird and Breakfast! See our monthly calendar at sacnaturecenter.net/events/calendar/



Why Can't We Take Our Dogs into the Nature Study Area (NSA)?

By Eric Ross

Animals have keen senses of sight, smell, and hearing, which allow them to find food and to evade danger. Their survival depends on their ability to respond to sensory stimuli. Birds, deer, and other animals perceive dogs – even friendly, unaggressive ones – as predators. The scent of a “predator” causes a stress response, which may prevent an animal from foraging or tending their young and could also cause them to injure themselves when fleeing from perceived danger. The presence of only one dog, even on a leash, will disrupt wild animals’ normal behaviors for a substantial period and put them at risk. Research on how dogs negatively impact wildlife areas and cause stress to wild animals is consistent and compelling.



The Sacramento County American River Parkway Plan 2006 applies the designation “Nature Study Area (NSA)” to “the most environmentally sensitive areas of the Parkway”, which includes the Effie Yew Nature Center (EYNC) NSA—a protected habitat for wildlife—adjacent to our Nature Center. County ordinance 9.36.061—*Animals* prohibits dogs, horses, and other domestic pets from entering the NSA. Bicycles are prohibited as well.

As a result, people visiting our NSA see more wildlife and can get closer to it than in other areas of the American River Parkway where dogs are allowed and wildlife commonly stays out of sight or leaves the area. EYNC’s designation as an NSA is also why it is considered one of the best sites in the Sacramento area to view birds and has been listed as a California Watchable Wildlife viewing site.

To find a trail map of EYNC’s 100-acre NSA, use the following link: sac-naturecenter.net/visit-us/nature-study-area/. And for those who want to bring their dogs with them, the map also shows a dog-friendly trail that goes around the perimeter of the NSA and into Ancil Hoffman Park, where dogs are welcome.

Eric Ross is a Docent at EYNC, an ARNHA Board Member, and a Certified California Naturalist.



Join Us in March for Bird and Breakfast

Effie Yew Nature Center’s premier birding event awaits you on the mornings of Saturday, March 16th, and Sunday, March 24th!

Join us on either our traditional or family-friendly day for captivating guided birding hikes led by knowledgeable docents of Sacramento Audubon and Effie Yew Nature Center. Read more and register at the [SacNatureCenter website](http://SacNatureCenter.com).



Ask a Naturalist:

What is a California Naturalist?

Interview with EYNC Naturalist Brena Seck

California Naturalists love nature and seem to have an insatiable desire for discovery. They are the people who can hardly contain their excitement when they spot a favorite bird or butterfly. Not only do they have an ambition to continually learn, they are also passionate about sharing what they've learned with their community. Natural settings are places of wonder for them, and they like to be involved in activities that protect these ecosystems. "Discovery, Action, and Stewardship"—the key words in the UC Cal Naturalist logo—fit them to a "T".

To become a California Naturalist, you must complete the requirements of the University of California (UC) California Naturalist Program (CalNat), which include a 10-week course, two field trips, a stewardship project, and an annual goal of 40 hours of volunteer work. No previous coursework or college degrees are required. The CalNat class is offered twice a year at EYNC with the next class starting March 18. You can find out more about the course on [our web site](#) under the "Education" tab.

Many Effie Yeaw Nature Center (EYNC) staff, docents, Habitat Restoration Team members, and other volunteers have become California Naturalists. CalNat stewardship or capstone projects initiated many long-standing programs at EYNC including the "Camp 5" program for 5-year-olds (Margaret Rogers and Rachael Cowan); the monarch butterfly monitoring program (Krystin Dozier. [See Fall 2020 The Acorn](#)), and the bird nest box monitoring program through NestWatch (Elizabeth Dolezal, Erin Hauge, Dorothy Wagner and many others. [See page 4 Fall 2021 The Acorn](#)). Other stewardship projects have involved removing invasive plants, helping the Habitat Restoration Team, monitoring bumble bees, and working at the California Native Plant Society's Elderberry Farms Nursery.

The CalNat Program is a launch point. The coursework is broad but not intensive; students must dig deeper. Class lectures and field trips introduce students to experts and people in their community who can connect them with new opportunities. California Naturalists become part of a community of like-minded people who will engage in long-term environmental stewardship for years to come.

Brena Seck is the Course Instructor for the CalNat course at EYNC. A staff member since 1999, she is also leads the Maidu Cultural Program for the Nature Center. She earned a degree in Wildlife and Fisheries Biology from UC Davis.



EYNC Naturalist Brena Seck



CalNat students explore the Putah Creek ecosystem on a field trip. Photo by Tai French.



Students visit a field of yarrow on a CalNat field trip to Elderberry Farms but are sidetracked by red tailed hawks flying overhead. Photo by Maureen Tracy.



Volunteer Profile: The Native Plant Garden Team

By Joey Johnson

The Native Plant Garden team began in 2011 as a team of one—Jan Ahders. Jan is a Master Gardener and a certified California Naturalist. She looked around the Nature Center and saw areas that were overgrown and uninviting. She came up with the idea that these spaces should be planted with plants that are native to the area. With the green light from the executive director and the volunteer coordinator, she began the project. Soon she was joined by Trudy Ziebell, and more recently, Felice Risling and Mark Lum.

You can meet these hardworking volunteers on Tuesday mornings with their wagon filled with tools and buckets. Many of the areas must be watered by carrying buckets of water to the plants during dry seasons. Jan refers to Mark as their plant encyclopedia with legs. Each member of the team brings their own special energy and yet they share the same goal, which is to have a demonstration garden that will inspire visitors to use more native plants in their own yards and landscaping. And to show how beautiful design enhances outdoor space. They only choose plants that are native to our area and follow county guidelines for approved varieties.

Jan is the primary funding source for the projects. She purchases and donates all of the plant material as well as parts to maintain the drip systems. Betsy Weiland has supported the program by donating a path of decomposed granite that was installed to complement the garden area and inhibit weed growth. Betsy also donated two new drip systems for a couple of the planting areas.

Jan sums up their work by saying “I love this group and we love this work. We laugh a lot.”

—
Joey Johnson is President of the American River Natural History Association. All photos were taken by Joey.



Felice Risling



Trudy Ziebell



From left to right: Felice Risling, Jan Ahders, Trudy Ziebell, and Mark Lum



Jan Ahders and Mark Lum



Etti, the California Kingsnake, Retires

By Carrie Sessarego

Please join us in congratulating Etti, a California kingsnake (*Lampropeltis californiae*), on his retirement! After many years of service, Etti is retiring to a life of warm water soaks, balmy heat lamps, and hand-delivered mice. In the wild, kingsnakes live for around fifteen years. However, in captivity they often survive well into their twenties. By any measure, Etti has reached “Wise Old Man” status and deserves to be shamelessly spoiled in his golden years.

Etti was born in 1999 and came to Effie Yeaw in 2007 when his owner could no longer take care of him. His name is a reference to the Maidu word “Etti”, which means strong. His active nature made him an especially popular Animal Ambassador in the Nature Center’s lobby. Many people knew Etti by his nickname “Eddie”.

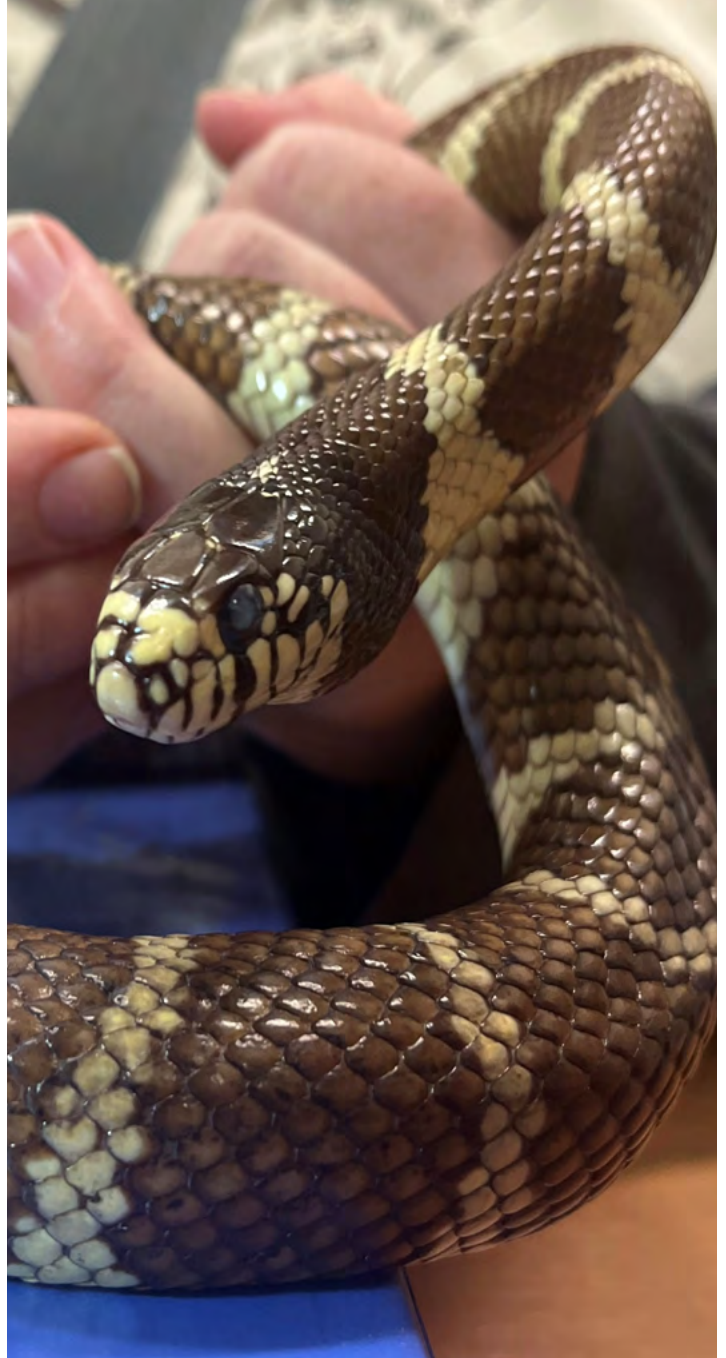
Etti is sweet-tempered with members of the public, but he is also a mischievous snake who is full of energy. Naturalists nicknamed him “Eddie Spaghetti” and “Fast Eddie” because, of all our snakes, he is the quickest and the most wriggly. Keeping him contained can be a real challenge! He also has a habit of, well, pooping on whoever is holding him, as well as releasing a stinky substance called musk. Because these are defensive behaviors that indicate stress, both Etti and his handler are given a break and a chance to clean up whenever this occurs.

California kingsnakes can be found in almost every part of California. They are not venomous, and they are immune to rattlesnake venom. The “king of the snakes” name refers to their ability to eat other snake species, including rattlesnakes. They also eat lizards, frogs, rodents, small birds, and all kinds of eggs. If you find a kingsnake in your garden, rejoice, for they eat any number of pests and pose no threat to you.

Etti recently had life-saving surgery to remove a mass from his abdomen. While the surgery was a success, his recovery needs, cataracts, and advanced age mean that it is time for him to retire as an Animal Ambassador.

Etti’s surgery put a substantial dent in our Animal Care Funds. If you would like to contribute towards the cost of this surgery, as well as Etti’s future retirement needs and the needs of our other Animal Ambassadors, you can send your donation by mail, donate online at sacnaturecenter.net, or visit us in person. Thank you for your support!

Carrie Sessarego is Development Associate at Effie Yeaw Nature Center. Photo by Sam Cohen-Suelter.



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