

President's Message, Fall 2020

So far, 2020 has been a challenging and exciting year for the Effie Yeaw Nature Center. With the January arrival of Kent Anderson, our new Executive Director, we entered a period of renewed and stimulating activity. We launched a reorganization of our Discovery Store and Museum, transitioned to on-line fundraising, increased our presence on social networking, and launched new on-line learning programs in response to COVID-19.

We are committed to being flexible and innovative in response to COVID-19 impacts. We are following guidance from public health officials to keep our team and visitors healthy. Many of us are working remotely, but we are available via email and phone. Our Board of Directors and staff are actively planning to ensure the continuity of Nature Center operations.

We are thrilled to have a Board of Directors that is composed of educators, local business leaders, prominent professionals in their field, as well as pure nature lovers who have volunteered over the years to support and protect the Effie Yeaw Nature Center. We invite you to visit our website: sacnaturecenter.net to get to know your Board and staff.

Several of our Board members and volunteers serve on sister non-profits working in the American River Parkway. This work provides the Nature Center a liaison with the American River Parkway Coalition, the American River Parkway Advisory Committee, and Save the American River Association. We benefit from the work of these important organizations.

We also work with other non-profits to heighten awareness of the natural world in the Sacramento area. The American River Natural History Association and the Nature Center have built great collaborations with the Sacramento Audubon Society, the Water Forum (see related article on page 9), and the California Naturalist Program, a partnership with the University of California system. Our work with these and other organizations has enriched the programs and services we offer, and deepened our knowledge of local environmental issues and how we can participate in helping solve those issues.

We continue to see high use of our Nature Study Area by dedicated walkers and families providing children with fun outdoor entertainment and learning opportunities. Our membership is holding steady and has generously increased their giving to allow the Nature Center to continue to survive, and make important adjustments and improvements during this challenging time.

Now is the time to come together. Our community has deeply-committed nonprofits and municipal governments working hard to ensure that our community remains safe and healthy. We have generous philanthropic partners who believe that advancing education on our natural environment is paramount to assuring safe, healthy and thriving communities.

We are one community. We stand strong together. We are resilient in these difficult times. We are here with and for you.



Laurie Weir

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Cover: Katharine Severson, a member of the EYNC Monarch Monitoring Team, looks for monarch eggs on the milkweed at the Nature Center. Photo by Kari Bauer.



EYNC Monarch Conservation Project: Citizen Science in Action

By Krystin Dozier

In 2016, Effie Yeaw Nature Center (EYNC) became a participant in a citizen science research project with the Monarch Larvae Monitoring Project (MLMP) collaborating with scientists at the University of Minnesota (UMN). The goal of the project was to understand monarch population trends and the many factors influencing their decline. A special focus for EYNC was to study the breeding cycle of western populations of monarch butterflies as they pass through the Central Valley.

Using the citizen science model, UMN scientists designed their research protocols to engage citizens from across the country to collect data related to local monarch populations. Involving members of the general public in data collection allows scientists to cover a much larger area in a more thorough way than otherwise possible. For this project, the

UMN scientists provided online training videos, detailed instructions, data collection sheets, and an online data entry portal. Participants can then follow the protocols to study monarch's in their area and submit data back to MLMP.

I started the EYNC monarch project in 2016 to fulfill the requirements for becoming a certified California Naturalist (CalNat). The CalNat program, which is offered at EYNC as part of a partnership with the University of California, requires a capstone project involving at least 8 hours of conservation activity outside of the classroom. The MLMP citizen science project seemed a perfect fit for me, although it required far more than 8 hours to complete.

I began the project in Spring 2016 monitoring the showy milkweed plants growing around the Nature Center build-



Figure 1 - Milkweed plant in flower with monarch caterpillar. (Photo by Krystin Drozier)



ings (Figure 1). The project involved monitoring the plants weekly to look for monarch eggs, different stages (called instars) of caterpillars, and the pupa or chrysalis stage. I also noted factors such as temperature, rainfall, and pollinator plants. During that first spring I monitored 42 plants and found one egg and eight caterpillars. I brought a few of the older caterpillars (4th and 5th instars (Figure 2)) into the Nature Center, just in time to see them pupate into their beautiful bright green chrysalises (Figure 3). These were used to educate the public about the monarch life cycle. The adult butterflies were released back into nature (Figure 4).



Figure 2 - Fourth and fifth instar caterpillars. (Photo by Joey Johnson)

Other CalNat students were encouraged to continue the project the next year. In 2017 85 plants were monitored and 8 eggs and 272 caterpillars observed. We found we needed additional recruits to monitor all the plants around the center and throughout the monarchs breeding cycle, which lasts from April through September in California. In 2018, the call went out to EYNC volunteers and local community members and over 30 volunteers jumped on board. Training sessions were held and support was provided to coordinate the team, to answer questions, and help with data entry issues. This allowed us to monitor all the milkweed surrounding the EYNC buildings, which topped out at 460 plants. We divided plants into smaller plots so that our volunteers had 70 to 110 plants to monitor. These citizen scientists monitored the milkweed plots weekly, looking under every leaf using a magnifying glass to identify eggs and other insects, noting the caterpillar instars observed, and collecting other data for submission.



Figure 3 - Monarch chrysalises on wall of AB Building at EYNC. (Photo by Krystin Drozier)



Figure 4. Newly emerged monarch butterfly on its chrysalis. (Photo by Joey Johnson)

Our fourth year of the project in 2019 saw expansion of the MLMP project beyond EYNC. MLMP training was provided by EYNC to other community members interested in joining a citizen science project and monitoring milkweed in their own areas. Volunteers from Elderberry Farms, Koobs Nature Area, and two community members who wanted to monitor the milkweed in their home gardens were all trained, along with a new cohort of volunteers for the EYNC plots. All of the observations and collected data are being used by the MLMP scientists to track monarch activity across the nation.

During our five years of participation in MLMP, we have seen a dramatic local decline in monarch populations. Our full season count in 2018 included observations of 280 eggs



and larvae, while the same period in 2019 found only 4. This decline was also documented at the Elderberry Farms site, where no eggs or larvae were observed, and by University of California Davis Professor Art Shapiro, who has been studying butterflies in central California for more than 30 years. The Xerces Society, a non-profit that protects wildlife with a focus on invertebrates, manages an annual study of monarch butterflies overwintering along the coast of California. Their numbers also dropped precipitously from 203,064 in 2017 to 28,429 in 2018, which is an 86 percent decline in just one year. The overwintering count remained below the 30,000 mark in 2019. This is less than 1 percent of the 3 to 10 million monarch butterflies counted in the 1980s and may indicate that these western monarchs are in danger of going extinct.

Scientists are still investigating the causes of the recent rapid decline, but research over the decades has already identified several factors that have contributed to the demise of monarchs nationally. Climate change, loss of habitat, and the use of pesticides are known to have had major impacts on monarchs. Recommendations for conserving monarchs focus on these three areas. Just this year a University of Nevada study of milkweed throughout the Central Valley found that samples at all locations were contaminated with pesticides, sometimes at levels harmful to monarchs.

What more could we do at EYNC to help preserve monarchs in California? We decided to work on monarch

habitat restoration. There is a stand of wild milkweed in the nature study area off-trail that has been there as long as anyone remembers. But this location has not been providing a good habitat. One missing element has been other species of flowering plants that bloom from spring through the fall to provide nectar sources for monarchs during their breeding cycle. A team was formed to work on improving the monarch habitat in this area (Figure 5).

We partnered with the county to obtain a required encroachment permit to work off-trail and with our friends at Elderberry Farms, who have expertise in using native plants to restore habitat. Detailed plans were drawn up to identify native plants that would provide blooms throughout the season, that were also approved to be used in the American River Parkway, and known to be used by monarchs for nectar. Test plots were cleared for seeding and seeds spread. A monitoring plan was established to track growth, and most importantly, count blooms. Low rainfall during the winter months, especially in February, led to poor germination. Although clarkia, fiddleneck, and yarrow seeds took hold, our broad spectrum of blooms was not achieved. Competing invasive plants, particularly yellow starthistle and Bermudagrass, quickly overran newly seeded plots and required aggressive removal. Use of seedlings instead of seeds may provide stronger plants and better survival in future years. Supplemental watering is also being considered as a necessary addition to increase our success with next year's plantings.

WHAT ARE THE BENEFITS OF CITIZEN SCIENCE FOR EYNC?

- Expanding scientists' ability to collect large amounts of data across a wide geography, thereby increasing our understanding of nature and changes over time.
- 2. Collaborating with other organizations involved in conservation of nature.
- 3. Putting EYNC on the map as a contributor to citizen science and local area trainer.
- 4. Engaging more community members in connection with nature and with EYNC.
- Providing a forum for educating the public about monarchs and milkweed and how they can become involved in supporting nature conservation.



Figure 5. Volunteer team in the field for habitat restoration: (L to R) Betty Cooper, Dan Meir, Cindy Rogers, Krystin Dozier, and Kathy Moorse. (Photo by Kari Bauer)



Our citizen science study of milkweed and monarchs continues to expand. This year we added monitoring of the wild milkweed stand to see if there is a difference in monarch activity on the wild versus the cultivated milkweed. Also, the University of Michigan (UM) has called for citizen scientists to help them study whether cutting back milkweed after flowering has an impact on the volume of monarchs visiting it. Native milkweed starts to die off after it flowers, thus does not provide very healthy plants for the monarchs through the fall. Cutting back plants causes them to send up fresh new shoots that might be more attractive. We decided to follow the UM protocol and cut back one of our plots in mid-June, to test their hypothesis.

We are proud to have a five-year track record of participating and promoting citizen science at EYNC. It has provided us with a way to partner with other organizations, engage the community, provide education about monarchs and milkweed, expand the science, and in a small way, make a difference in conservation. It has been a springboard as well for further expansion of habitat restoration efforts in the EYNC nature study area.

Krystin Dozier is a certified naturalist, volunteer docent and receptionist at EYNC. She has found friendship, relaxation, and joy in exploring nature following retirement as a critical care nurse and administrator in Sacramento. For more information on monarch biology and conservation projects, see the Monarch Joint Venture Project at monarchjointventure.org/.

WHAT CAN YOU DO TO HELP MONARCH CONSERVATION?

- 1. Plant only native milkweed plants. Tropical milkweed does not die back in the winter, which causes a buildup of parasites that kill monarchs.
- 2. Plant a mix of pollinator plants that can provide nectar throughout the breeding cycle, spring through fall.
- 3. Eliminate use of pesticides in the garden.
- 4. Join a citizen science project.
- 5. Log your sightings of monarchs and/or milkweed throughout the year on iNaturalist or the Monarch Milkweed Mapper.





Volunteer Profile: The Monarch Conservation Team

In this issue we are featuring key members of the team that has been participating in Effie Yeaw's monarch monitoring and milkweed conservation projects. Many other volunteers were involved, but these six individuals formed the backbone of the effort.



Katharine Severson heard about the Monarch Larvae Monitoring Project (MLMP) in her 2019 California Naturalist (CalNat) class and responded to the call for volunteers. She signed up to monitor in the spring and enjoyed it so much that she continued on through the fall. She was our first and only volunteer to search for monarch eggs and larvae on the milkweed surrounding the Nature Center throughout the entire 6-month breeding season. In 2020, she signed up again to monitor for the full season! As a nurse practitioner, she understands science and the importance of following protocols and has thrown herself into the work, bringing her love of nature and observation skills to the task. Katharine finds teaching rewarding and happily interacts with visitors who want to know what she is doing as she inspects the milkweed with a magnifying glass. She has also volunteered in the Yolo Basin annual bat

count by looking under the Yolo Bypass bridge with a flashlight and binoculars to count tails and noses. Birds, bugs, snakes, hiking, anything that takes her outside in nature calls her name. An avid world traveler, Katharine now focuses her travel plans around birding. During her career, she has played an important role in the development of a bone marrow transplant program in Tucson, a community health clinic in Placerville, and an employee wellness program "Healthier You". We are so fortunate to have Katharine share her skills and enthusiasm with us at EYNC.



Kathy Moorse also took the CalNat class in the spring of 2019 and joined our MLMP monitoring team. She has returned for a second year and is studying a wild stand of milkweed in an off-trail part of the Nature Study Area. After learning so much about local flora and fauna and finding new friendships with like-minded outdoor enthusiasts at EYNC, Kathy decided to become a docent. She has been leading kids on hikes and exploring nature with them ever since. "I've learned so much from my fellow docents and the staff, plus all of the classes and educational offerings the center provides. EYNC does such an amazing job taking care of their volunteers, making sure we have all of the information we need, but also promoting socialization through teas and luncheons, plus ongoing recognition and appreciation. It is such a great place to volunteer, and learn". Kathy loves to be outdoors, hiking, kayaking,

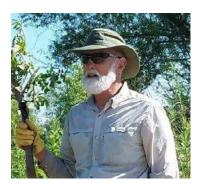
snowshoeing, and even scuba diving. She is proud to tramp around on a handmade pair of snowshoes, which always steals the show with their beauty. Kathy is most proud of her kids and family which bring her great joy. We are delighted to have Kathy join the EYNC family as well.



Cindy Rogers has been a volunteer at EYNC for 4 years. She took the CalNat class in 2018 to enhance her knowledge of the natural world. Cindy is a docent and also has done habitat restoration work removing invasive yellow starthistle, Italian thistle, and scotch broom from EYNC. She monitored for monarchs in 2018 and returned this year to join Kathy in monitoring the wild stand of milkweed. She volunteers with EYNC animal care and learned how to care for our critters with the desire to become a raptor handler, which she accomplished, and now proudly displays Echo or other raptors on her gloved hand to introduce these animal ambassadors to the public. Cindy is always one of the first to sign up to support any special event from the Gala to Bird and Breakfast to Nature Fest and every other call for volunteers. If that doesn't keep her busy enough, Cindy also volunteers with the Sacramento Heron and Egret Rescue group, rescuing fallen chicks under the rookeries, and taking them to the wildlife res-

cue center. Cindy's other hobbies include hiking, snowshoeing, outdoor photography, and making stained glass windows. She has made over 100 creations from glass. I hope we can convince her to enter one of her glass windows in one of our future art auctions. With so much talent and energy, we are lucky to have captured her on the EYNC volunteer team.





Dennis Eckhart commuted on his bike from his home in Carmichael to his office downtown for 20 years, so he knew the bike trail intimately. After he retired, he became even more familiar with the parkway, hiking the trails, enjoying the wildlife, watching birds, and expanding his photography portfolio and skills. He has been an active member of the American River Parkway Foundation (ARPF) for 10 years where he has led conservation and habitat restoration projects to remove invasive plants along the parkway. In the fall of 2017, Dennis took the CalNat class at EYNC and choose to remove stinkwort and Spanish broom as his capstone project, and he continues to lead teams of volunteers to clear large areas of brooms, yellow starthistle, stinkwort and other invasives from our Nature Study Area and in the cobbles along the river. This year, he brought his expertise and muscle to the EYNC Mon-

arch Habitat Restoration Project, helping to minimize yellow starthistle around a stand of wild milkweed. For invasive plant removal, Dennis brings strong plant identification skills, removal techniques, tools, and his good-natured enthusiasm. We so appreciate all the work Dennis has done to enhance the beauty of our nature area. His technical knowledge of iNaturalist and eBird make him a strong contributor and expert always able to help others. Dennis is most proud of his 5 kids and 15 grandkids. We are also proud of his work to sue big tobacco companies and bring much needed tobacco funds revenue to the State. Thank you, Dennis!



Jan Ahders heads up the EYNC volunteer gardeners team who plant, weed, and tend to the native plant gardens around the Nature Center. Jan's goal is to demonstrate to visitors that they can use native plants in their home gardens with great results. She has helped the monarch projects by planting pollinator plants adjacent to the milkweed. This year she is helping to cut back some of the milkweed after it blooms to see if the new shoots will provide more attractive stems for egg laying and better food for the caterpillars this fall. Jan is always a willing participant in our efforts. She and her team do a wonderful job keeping the gardens attractive and educational with plant labeling. Bravo!



Krystin Dozier came to EYNC in 2014, after retiring as a critical care nurse and administrator of quality and patient safety for a large healthcare system. Finding time outside in nature became her new passion. She started as a receptionist at EYNC, learning from the Naturalists leading school programs, and soon trained as a docent. She took the CalNat class in 2016 and selected the Monarch Larvae Monitoring Project (MLMP) for her capstone., She was captivated and inspired by seeing caterpillars at EYNC for the first time since she was a child. She recruited new CalNat students to continue the work and became a trainer for MLMP, teaching others in observation and data protocols. She developed resource kits, coordinated schedules, and provided support to a rotating team of volunteers. Each year the program expanded, but sightings of monarchs declined, so she started a new team to work on habitat restoration to increase nectar resources. Through it all Krystin has enthusiastically

introduced countless members of our community to the monarchs' amazing life cycle and migratory habits. Thanks to Krystin, we have a 5-year history of citizen science underway at EYNC.



Symbiosis by Peter Hayes

All hail the peripatetic monarch, the gaudy butterfly appearing in the valley now after migrating from Monterey, Santa Cruz, and other coastal points.

The big monarch, with orange brown wings and black borders dotted with white spots, covers great distances with a leisurely, soaring flight. It fears no birds or other insects-eating animals because of it's "protected" status resulting from an unusual symbiosis with the milkweed plant.

saddlebags of pollen suspended from its feet.

meet their demise atop the pinkish bloom.

Eggs laid on the milkweed's wide, wooly leaves turn into caterpillars which absorb a bitter poison in the course of feeding on the plant. The poison persists through the pupa state and to the adult butterfly.

Through a genetic learning process, or perhaps by trial and error, predators learn to leave the monarchs alone. Further, the viceroy butterfly mimics the general form and color pattern of the monarch – but not its unpleasant taste - and thus manages to escape many predators. Nowadays the monarch is in a position to return the favor to its onetime host. The fragrance of the milkweed's flowers attract the butterfly, and as it crawls over the blossom seeking nectar, its legs stumble into masses of pollen. It has bristles on its feet and as it pulls free, it departs with little

The monarch then visits another milkweed flower where the funnel-shaped cavity guides the pollen down to the receptive female organ, completing the cross-pollination leading to reproduction of the milkweed. Flies and other smaller insects aren't always equal to the task of pulling loose from the milkweed's pollen sacs, and

The monarch, it seems, knows that it helps to have a meaningful relationship with the milkweed.



From "An American River Journal," published by the American River Natural History Association (ARNHA). It features illustrations by ARNHA co-founder Jo Glasson Smith and nature essays by Peter J. Hayes, retired newspaper editor and ARNHA Associate Board member. The drawing of showy milkweed is from "Outdoor World of the Sacramento Region". Both books are available at the Effie Yeaw Nature Center, <u>SacNatureCenter.net</u> and selected bookstores. Visit <u>SacNatureCenter.net</u> "Podcasts," to hear readings of the essays by the author.



Salmon Habitat Restoration — Collaboration with Water Forum

By Joey Johnson

Way back at the beginning of February, we were contacted by Tom Gohring, Executive Director of the Sacramento Water Forum, regarding an upcoming phase of their salmon habitat restoration project on the Lower American River. This phase of the project is to be implemented in the river that flows through Ancil Hoffman Park, which, of course, flows alongside our Nature Study Area. He wanted to let us know more about how the project was going to be implemented and how we could help make this a great learning experience for our community. We have a long-standing collaborative relationship with the Water Forum and the conversation around this project was very exciting.

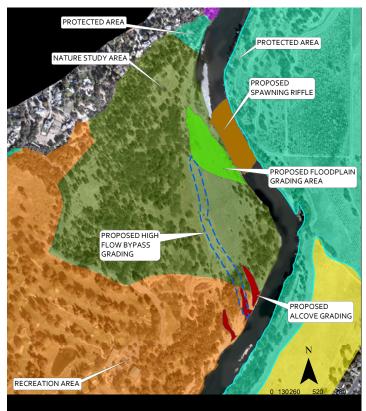


Figure 1 - Map of project location showing EYNC Nature Study Area (dark green), areas where gravel will be processed (bright green) and where it will be placed in the river for spawning (brown).

The Lower American River (LAR) has stocks of Chinook salmon and steelhead trout, both of which are threatened. Due to a variety of changes that have taken place in the river as a result of mining activity and the building of Folsom Dam, the amount of spawning habitat for salmon has been drastically reduced, thus diminishing the salmon population. To undo some of this damage, the Water Forum, U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service and Sacramento County Parks have joined together to restore gravel spawning and rearing sites at various locations along the river. These projects use existing materials to create the sites, thus avoiding bringing in any additional foreign materials. River rock left from mining days is ground into appropriately sized gravel, and any trees or brush removed to make room for the gravel beds are relocated to provide shelter and habitat along the rearing channels.



Figure 2 - Distributing gravel in the river.

Similar restoration projects have been completed at Nimbus Bar, Sacramento Bar, and most recently at Sailor Bar in October of 2019. Positive results have already been recorded with salmon observed spawning in the new gravel beds at Sailor Bar last fall. The project at Ancil Hoffman Park is scheduled to begin in September and take around six weeks. Equipment will be staged in the park well away from the Effie Yeaw Nature Center area or the Effie Yeaw Nature Study Area. There will be some noise from the grinders and the machines moving silt, but the educational opportunities for EYNC are great. Visitors will have the opportunity to view the project firsthand and signage will be placed in key locations in our Nature Study Area to educate people about the salmon and steelhead life cycles and the need for spawning habitat restoration.

Effie Yeaw Nature Center and the Water Forum will collaborate to make this project a unique educational opportunity for people of all ages. There will be a safe viewing area for visitors to observe construction of the gravel beds along with new signage explaining the project and the desired outcome. In addition, Water Forum is providing support to create a museum display about salmon and their relationship to the river and the benefits of the restoration project. Water Forum will also be providing support to make the main trail more accessible for people with mobility challenges. The staff at EYNC will use these resources to enhance school and adult education programs to include the restoration project and the life cycle of the Chinook salmon. Having this project take place in our "backyard" and to become partners in the process is such a gift to EYNC and provides one more way for us to forward our mission.

Please click on the following links to see more information about these projects and enjoy videos of the process. waterforum.org/the-river/habitat-management/youtube.com/watch?v=Yk_MQJgDryY

Joey Johnson is Past President of ARNHA, a photographer and a nature lover. Images provided by the Water Forum.





Figure 3 - Before and after restoration at Sailor Bar.

Note the gravel in the river in the "after" photo.







Leading Curiosity By Kelly Seck

A great portion of what we do at Effie Yeaw Nature Center (EYNC) is help people discover nature. EYNC Naturalists and docents are not teachers and do not consider ourselves to be. Rather, we are leaders in curiosity and discovery. We try to provide the critical tools our visitors need to look deeper into their surroundings. A tool can be as little as a question.

This idea is similar to thought leadership, a widely known business model. When used in a business setting, a thought leader is a subject expert who shares their knowledge and inspires others. Thought leaders are often the ones with the largest audiences and most followers on social media. As curiosity leaders at our Nature Center, our approach is a bit different. It consists of fully immersing ourselves in a subject and inviting those around us to join in.

At EYNC, we do not require a wide audience; we will take the opportunity to expand the mind of one person. Our leadership is not about stating facts to large audiences; rather, it consists of showing individuals opportunities for discovery and how they can dive deeper into the experience. We take notice of curiosity and let it run wild.

We follow a phrase: "I notice, I wonder, it reminds me of," commonly referred to as INIWIRMO. This phrase not only reminds us to look deeper into a subject, it is also a tool that show us how. When utilized by anyone, this set of prompts guides observers to dive into their curiosity. This is especially important in nature where not everything is what it may seem on the surface. As communicated by John Muir Laws, author of *How to Teach Nature Journaling*, telling someone to "look carefully" or "look hard" does not truly engage the mind. Rather, the INIWIRMO prompts will help guide the brain through a process of really seeing the subject as opposed to simply looking at it.

Instead of giving an answer or accepting not knowing, take a second look at the subject and utilize INIWIRMO. You do not need to be a scientist to answer these questions.

- · Describe it: What do you notice about it?
- Wonder about it: Why do you think it is that way?
- Connect it: Does it remind you of anything?

Taking the time to ask these questions can open up the mind to the possibilities of the subject and excite curiosity. As curiosity leaders, we do not readily give the answer when we are asked questions. Instead, we ask more questions and help observers consider what could be done to

find the answer. Discovering an answer gives time for new knowledge to settle in, while being told an answer and moving on likely stifles imagination with the mind moving on as well. We hold value in turning questions into conversations and take every opportunity to nurture through nature.

Our lessons are done on and in the outdoors. We take advantage of our trails and turn every step into a new classroom. A classroom does not need to have a desk, a chair, or be indoors. Everywhere can be turned into a classroom. All that is necessary is the opportunity for curiosity to flourish. You do not need to be a teacher or Naturalist to lead this process. Nature expresses itself to everyone, not just experts. There are opportunities to look deeper around every corner; all you have to do is ask a question.

This way of leading discovery is not exclusive to business workers, teachers, or Naturalists. Anyone can use these tips and take on the task of diving deeper. This process can be followed by anyone and used anywhere. Use these INIWIR-MO prompts next time you are out in nature with a child, a friend, or by yourself. The mind is constantly flourishing and there is no age limit for curiosity.

Kelly Seck is a Naturalist at Effie Yeaw Nature Center. All photos taken by Rachael Cowan.





A Vision for Effie Yeaw: Thoughts from the Executive Director

By Mary Louise Flint



The focus of this issue of The Acorn is citizen science and community collaborations, so it seemed appropriate to query Effie Yeaw Nature Center (EYNC) Executive Director Kent Anderson about his thoughts about future directions. This is what I learned.

Kent Anderson

Kent cautions that the Covid-19 shutdown and social distancing requirements make it difficult to visualize the short-term future. No one knows when we will be fully open and again see large numbers of school classes arriving to hike our trails, visit our museum, and learn about local wildlife. However, the pause necessitated by the pandemic has allowed Kent and the EYNC staff to step back and do some creative thinking.

Naturalist-led nature hikes and classroom visits have been a cornerstone of EYNC's education program, with about 500 elementary school classes served a year. When Covid-19 shut these programs down, Naturalists had to reimagine their delivery methods. They began to create online Ask-A-Naturalist blogs, Facebook Live video programing, and interactive Zoom presentations for at-home learning. These efforts have been a resounding success, drawing many new visitors to the Effie Yeaw website. As EYNC staff continue to hone their skills, Kent foresees distance learning expanding and becoming an important component of EYNC's education programs long after school groups return to the trails.

As Kent explains, "Our goal is to get people to the Nature Center in order to directly experience nature in an immersive and multi-sensory way. But if we can't get people to the Nature Center, then we can bring it directly to them, via Zoom, social media, or even off-site programs and opportunities."

Kent's vision for the future includes significant improvements in EYNC's buildings and facilities. There just isn't enough space for offices, the museum, classrooms, the Discovery store, and, perhaps most importantly, our Animal Ambassadors. A long-term goal is to be able to house not only more animals but a greater diversity of animals including mammals. ARNHA has actively supported the expansion idea and funding has become available for planning, but much more fundraising will be required before construction can begin. Meanwhile, the EYNC staff is reconfiguring the current space to improve the situation for now.

The EYNC Nature Study Area provides a prime example of the riparian oak woodland habitat prevalent in the Sacramento Valley before Europeans arrived. However, the Study Area is deteriorating with native trees dying and invasive species taking over. These changes disrupt the whole ecosystem. Although Effie Yeaw volunteers and staff provide some maintenance, it has not been enough. Sacramento County officially manages the property but does not have the resources to properly conserve and renovate this resource.

If EYNC can get permission to manage the landscape, Kent sees opportunities for reversing the deterioration: "Effie Yeaw Nature Center provides a unique glimpse into a natural landscape, something that is rare throughout much of urbanized California. We want to support native plant and animal communities and, through restoration and mitigation efforts, tip the balance in favor of native ecology."

A first step would be to create a comprehensive habitat restoration plan. Kent envisions drawing on expertise from agencies, academic scientists, NGOs and other experts to develop a plan and obtain funding for carrying it out. Kent would like to see more scientists and citizen scientists engaged in research and data collection projects in our Nature Study Area. The collaborations involved in a habitat restoration project would be one important way to identify potential cooperators and projects.

It would be difficult to spend much time talking to Kent and not walk away excited about EYNC's future. Kent has spent many years involved in nature education and preservation projects around northern California, and he has a pretty good idea of what works and how to get things done. But it is his passion for the natural world and his dedication to sharing it with others that really motivates him. His dream is to fulfill EYNC's great potential to reach more audiences in new ways.







Follow us on Facebook and Instagram 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, and join us on Facebook LIVE! for 'Ask a Naturalist' and more!

facebook.com/EffieYeawNatureCenter/ instagram.com/effieyeawnaturecenter/?hl=en



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/



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/



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:

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