UC SANTA BARBARA

SEDGWICK RESERVE

Spring 2023 Newsletter

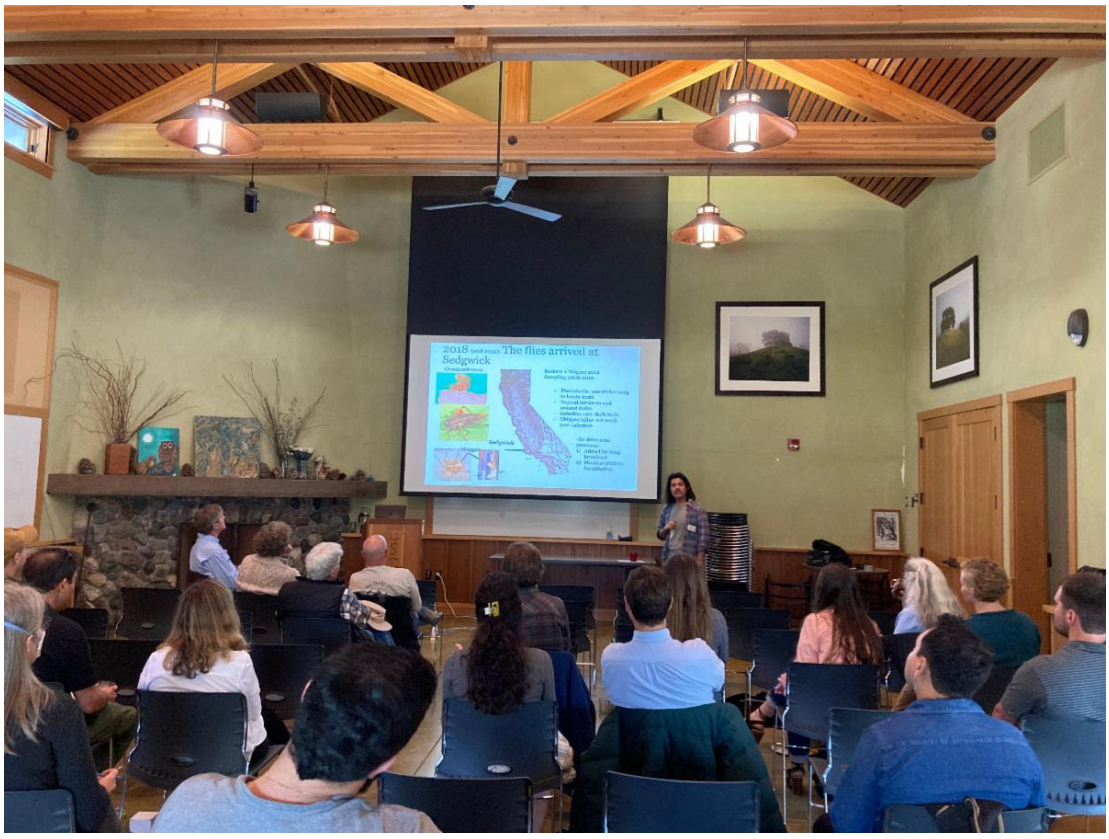
Sedgwick Reserve Welcomes Director Dr. Heather Constable

A new Director took the helm of the UCNRS's **Sedgwick Reserve** this March. A population biologist by training, Heather B. Constable brings scientific expertise and experience facilitating field research to the position, including five years with the UC Natural Reserve System.

"We are so excited to have Dr. Heather Constable join the amazing team at UCSB's Sedgwick Reserve. Her passion for the Natural Reserve System, coupled with her impressive credentials, extensive expertise and "can-do" approach will undoubtedly keep Sedgwick amongst the top tier of research field stations in the world, and will lead to new opportunities and knowledge as we all strive for a sustainable and healthy future," says Marion Wittmann, Executive Director of the UC Santa Barbara Natural Reserve System.

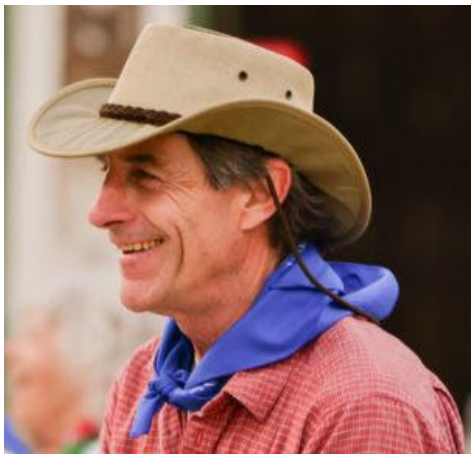
Full article by Kathleen Wong

La Kretz Research Symposium

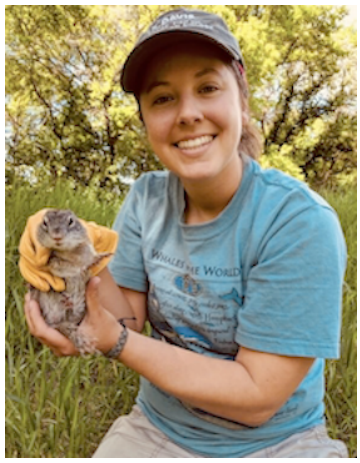


On April 8th, the La Kretz Research Center hosted the biennial Research Symposium at Sedgwick Reserve. This was an opportunity for all of the Reserve's researchers to come together and share research findings and cultivate new collaborations.

The **La Kretz Research Center at Sedgwick Reserve** was established in 2017 as an intellectual center for research in conservation science. The La Kretz Center's mission is to identify, investigate, and help solve pressing environmental problems that impact California's diverse habitats and species.



The **Center** is directed by Dr. Frank Davis, a distinguished Professor at UCSB's Bren School of Environmental Science and Management. He served as the faculty advisor for Sedgwick Ranch from 1990 to 2000 and was deeply involved in the transition from the Sedgwick family ranch to the Sedgwick Reserve.



The Center is managed by Kristen Zumdahl. Kristen received her MSc. in Biology at the University of Manitoba in 2020 and her BS. in Wildlife, Fish, and Conservation Biology at the University of California, Davis in 2016. Kristen has extensive knowledge and field skills for handling and studying wildlife.

Spring Public Hikes

Docent-led public hike events were held during March, April and May. Over three hundred fifty members of the public enjoyed the trails, wildflowers and seldom seen flowing creeks.

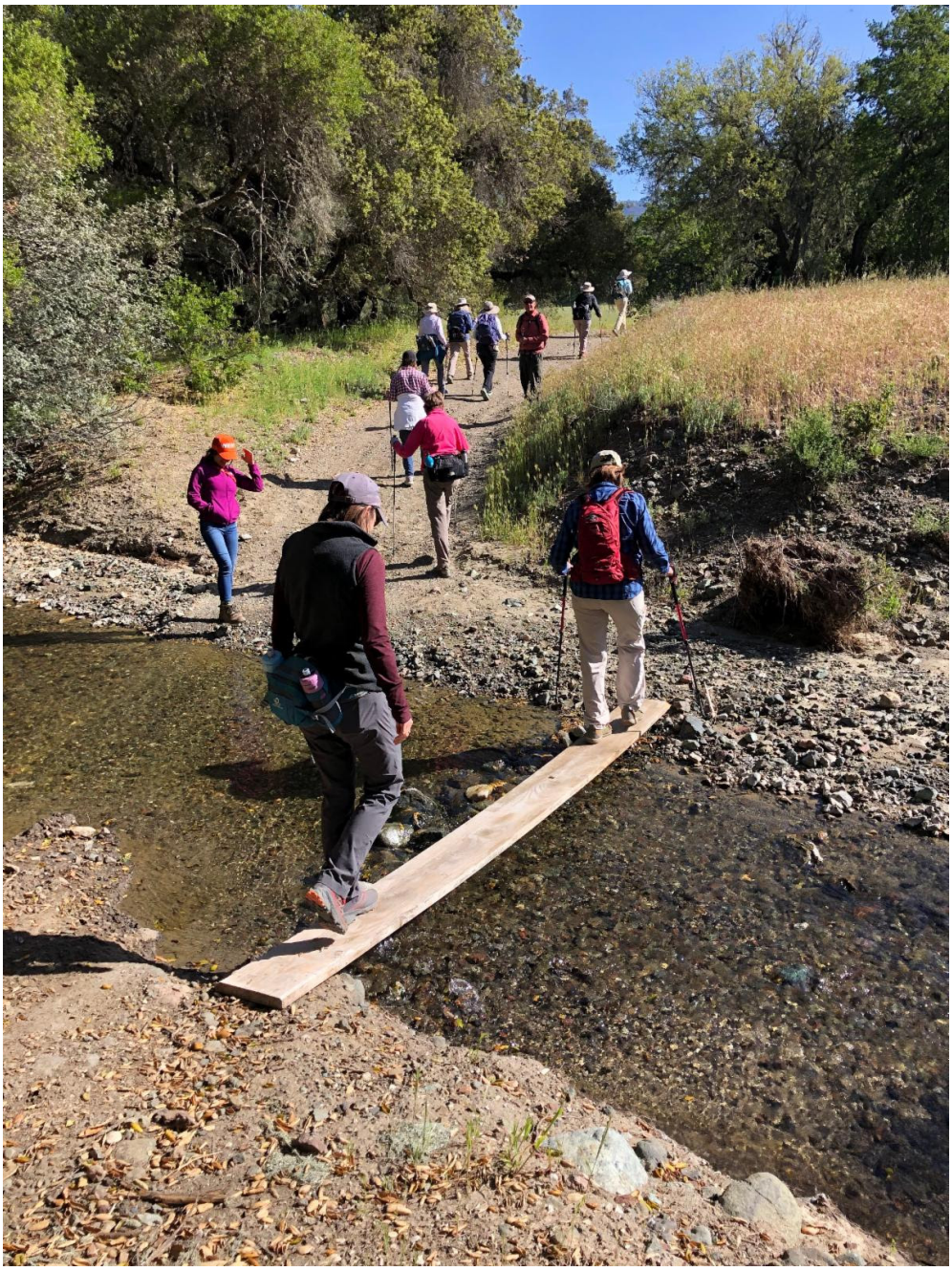
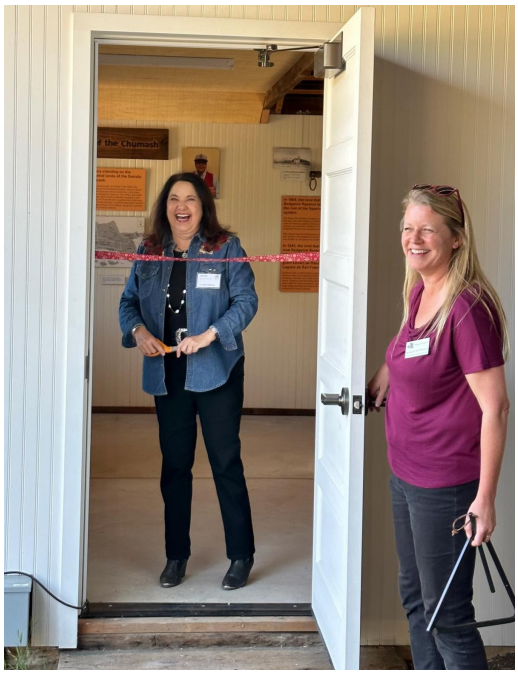


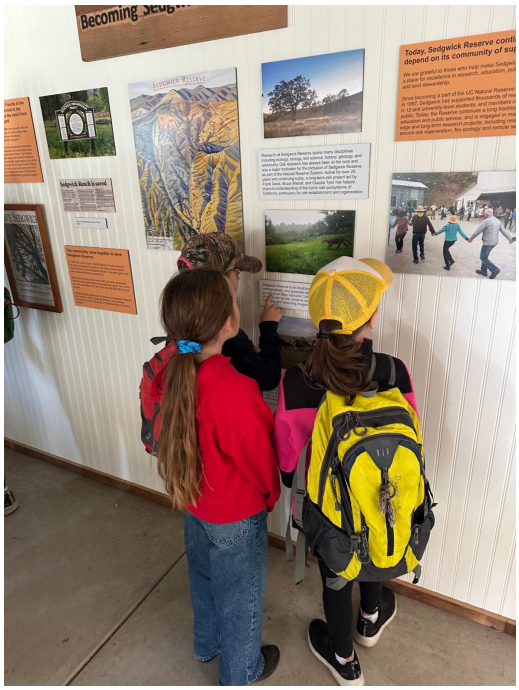
Photo by K.C. Thompson

Interpretive Center Opening
May 12, 2023

The historic barn's original tack room was renovated this year and officially opened on May 12th as the Interpretive Center. It displays the Reserve through different eras; from Chumash use, the Sedgwick family days and, finally, how it became a UC Reserve.
Many thanks to Linda Duttenhaver for making this new resource possible.

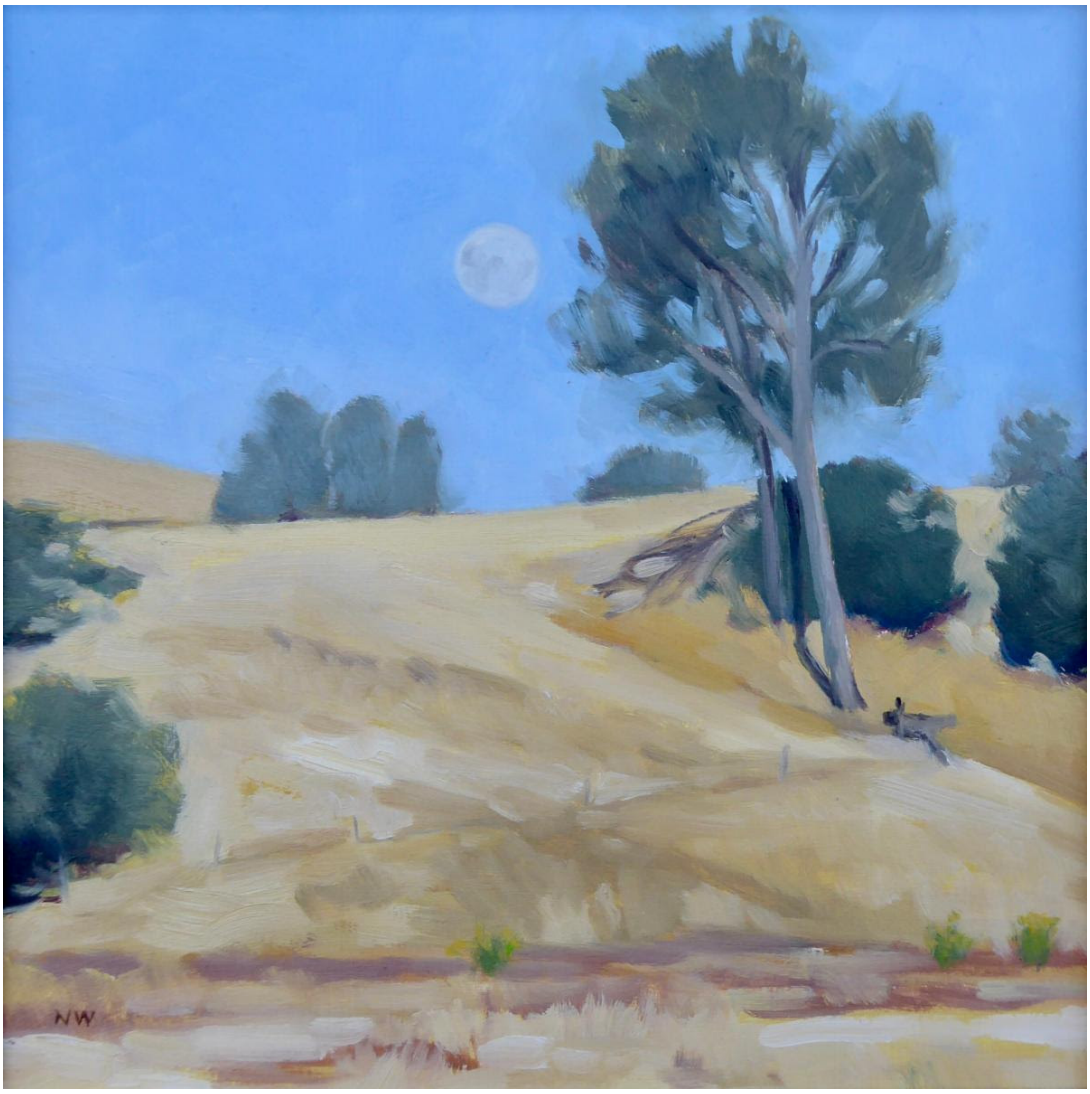


Linda Duttenhaver (L) cutting the ribbon and Marion Wittmann (R). Photo by Sarah Sikich



Local students studying the exhibits. photo by Lyza Johnsen

Solvang's Wildling Museum Hosts Exhibit on Sedgwick Reserve



Nina Warner, Early Moonrise (Sedgwick Reserve), Oil on panel, Courtesy the Artist.

Sedgwick Reserve: A Conservation Story

by Lauren Sharp, Asst. Director, Wildling Museum

On view at the Wildling Museum
April 8 – October 16, 2023

Unknown to many visitors, and even some local residents, Sedgwick Nature Reserve is an important gem nestled in the foothills of the San Rafael Mountains in the Santa Ynez Valley. One of seven reserves managed by the University of California Santa Barbara Natural Reserve System, Sedgwick is among the largest and most diverse reserves of its kind in the country. Comprised of just under 6,000 acres, or about 9 square miles, Sedgwick hosts several different kinds of habitats: oak savannah, coastal sage scrub, chaparral, gray pine forest, vernal pools, and two different watersheds. Managed by UCSB, Sedgwick has become a world-class research, conservation, and education facility.

"We love to highlight local conservation areas and Sedgwick Reserve is a major one," says Stacey Otte-Demangate, Executive Director. "As part of the UC system, it's unique for the amount of serious academic research it supports, particularly with native oaks."

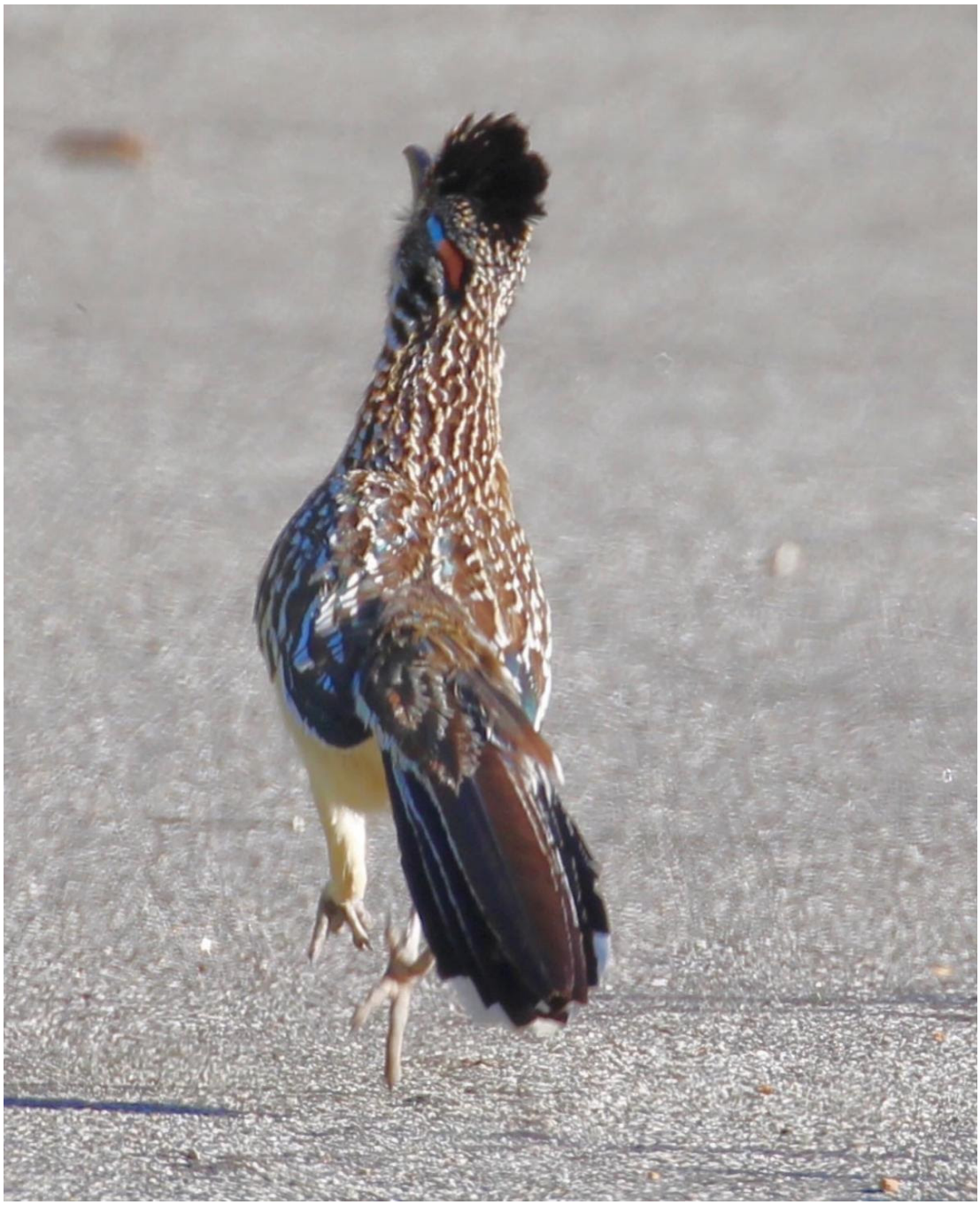
Through the eyes of 11 Central Coast artists, the exhibition will explore both the beauty of the reserve and the important work taking place on its grounds. **Featured artists** in the exhibition include Whitney Brooks Abbott, Chris Chapman, Dennis Curry, Camille Dellar, Bill Dewey, Bruce Everett, Russ Hunziker, John Iwerks, Manny Lopez, Mark Oliver, and Nina Warner**.**

The Wildling Museum of Art and Nature, where art and nature meet, offers visitors a unique perspective on the importance of preserving our natural heritage. Through the eyes of artists, and education and field experiences, guests can renew their relationship with the wilderness and understand its fragile nature – hopefully leaving more committed toward ensuring those spaces remain for future generations. Visiting hours are weekdays 11 a.m. – 4 p.m. and weekends 10 a.m. – 5 p.m. Closed Tuesday and Wednesday. For more information, and to volunteer or join as a member to support this important local arts and nature institution, please visit **www.wildlingmuseum.org**

Many thanks to exhibition sponsors: The Robert and Mercedes Eichholz Foundation, Pete & Becky Adams, George & Denise Rose, Santa Ynez Band of Chumash Indians, Margaret Weiss, and donors to the Patti Jacquemain Exhibition Fund.

Protecting the Natural Food Web

by Nikki Evans, Outreach Specialist



Greater Roadrunner running down Sedgwick Reserve's main road

As I drive down the main road into Sedgwick Reserve, I encounter an unfamiliar sight. Landing 20 feet in front of me, a lanky bird with a long tail and tall crest blasts off down the road. It is a Greater Roadrunner. I am enthralled. Bright colors behind his eyes and on his flight feathers flash in the morning sun. The patch of blue and orange skin behind a roadrunner's eyes is at its brightest during the spring breeding season. I follow the roadrunner a little ways. He (*or she: Roadrunner males and females have identical plumage*) scurries into the sage scrub where I barely manage to snap a picture through an opening in the sagebrush. Then he runs over the hill and is gone from view.

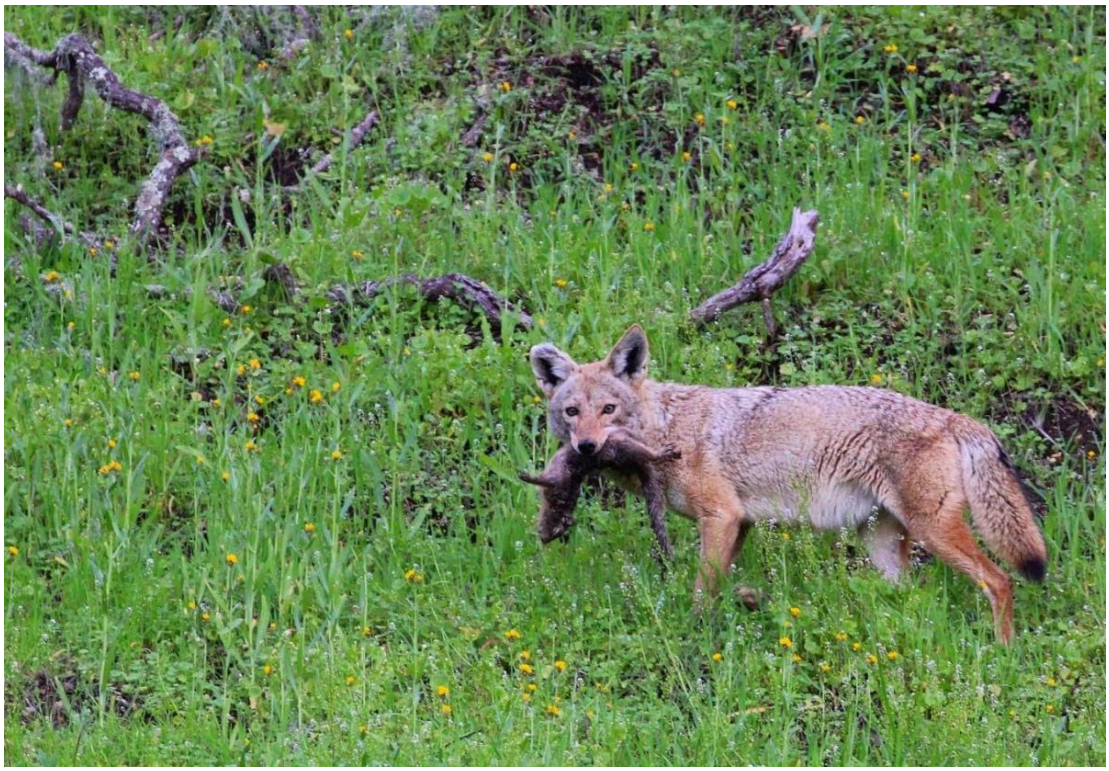
Greater Roadrunner peering out from the sagebrush

Over the next few days, I look and hope to see him again, but I have a feeling that was the only look I was going to get at this amazing bird for awhile. Roadrunner sightings at Sedgwick are rare. They are spotted typically once a year or less.

Roadrunners are tough animals. They can eat venomous lizards and snakes, and are known to kill rattlesnakes by attacking them from behind, pecking their heads repeatedly. Capable of running 20 miles per hour on their tiny legs, they are opportunistic predators who also eat mice, voles, and gophers.

I was thinking a lot about roadrunners in the days following that encounter. Given their diets, I began to wonder if they were susceptible to the same kind of rodenticide poisoning that our local raptors, owls, and bobcats are. Rodenticide had been on my mind since several days earlier when I

encountered a bobcat at the Reserve who appeared to be struggling with mange, a disease often connected to rodenticide exposure. It turns out that as consumers of rodents *and* of reptiles that consume rodents, roadrunners can also be impacted by rodenticide. They are not often considered when we talk about rodenticide impacts, but they are another species on long list of predators impacted by these deadly poisons.



A coyote saunters by with a ground squirrel in her mouth

The (Toxic) Food Web

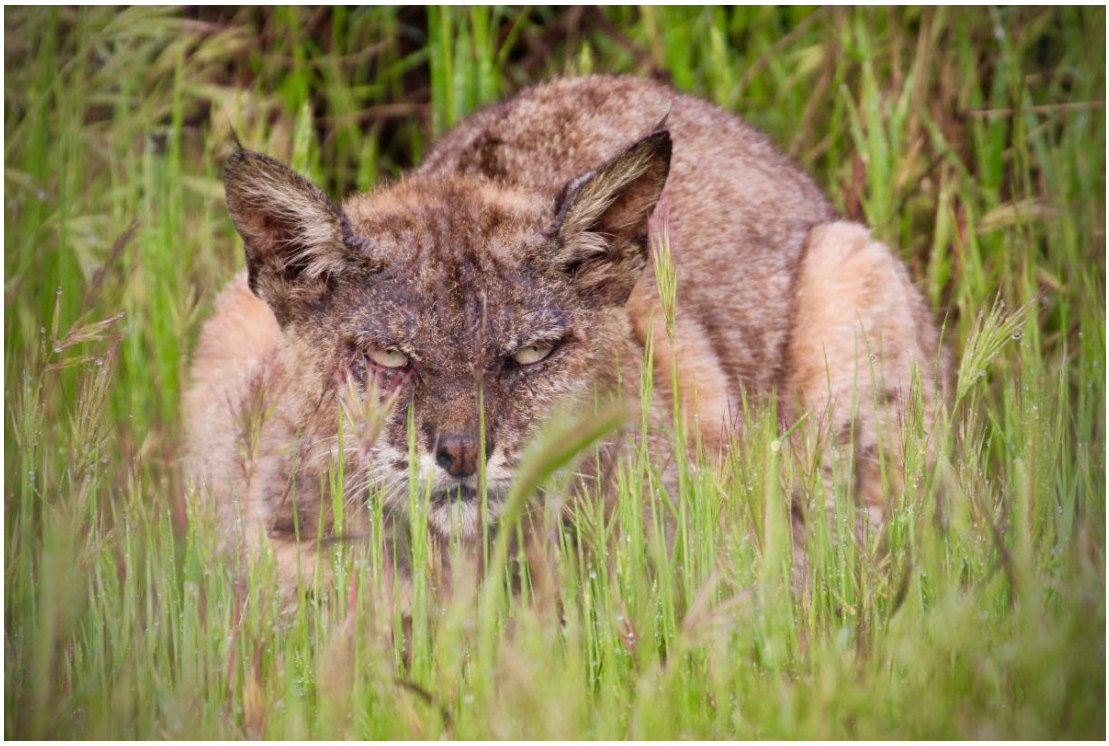
Food webs are the *what-eats-what* of an ecosystem. When we introduce poisons into the ecosystem, they move up (and sometimes down) the food web. The interconnectivity of nature is a beautiful thing, but it also means that introducing an element into nature that targets one kind of creature is not realistic. It tends to have effects on many other species that eat or are eaten by those target species.

Rodenticides are poisons intended to kill rodents, which include rats, mice, squirrels, voles, chipmunks, and gophers. They work by thinning the blood, preventing clotting, also known as *anticoagulants*. First generation anticoagulant rodenticides (FGAR) require the creature to consume several doses before becoming lethal, while second generation anticoagulant rodenticides (SGAR) are more lethal, needing only one dose. In either case, it is a slow, painful death, taking one to several weeks for the animal to die. During this time, they may continue consuming the poison, accumulating more than the lethal dose to pass along to the ecosystem. Compounding the negative impacts, predators often find poisoned rodents to be even more enticing than non-poisoned rodents. Studies have found that poisoned rodents tend to be eaten more often than non-poisoned rodents, likely due to the fact that poisoned rodents are more lethargic and easier to catch.

Hawks, owls, bobcats, roadrunners and other animals who eat poisoned rodents often suffer fatal consequences. The poison passes into the predator's bloodstream and liver, moving up the food web. Rodenticides can directly kill predators who end up with enough of it in their system. Rodenticides also have indirect effects on the health of predators, by affecting cellular function and inhibiting wound healing. Animals who are exposed to rodenticides are more susceptible to mange.

Because of the dangers of rodenticide, Sedgwick Reserve does not use rodenticide and encourages others to find more natural ways to manage or learn to live with our regions' rodents.

Notice the difference in facial coloration between this healthy bobcat (above) and this bobcat with mange (below). The mangy bobcat is missing much of its fur due to lesions caused by microscopic mites.



Let's take care of our local critters together. There are many ways to manage rodents without the use of poisons. For starters, you can actually invite predators to help you in the task of rodent control. Don’t poison the natural rodent control. A Barn Owl has been estimated to consume between 1,000 and 1,500 rodents each year at a far more affordable cost than poisons. **Hungry Owl Project** argues we can nearly eliminate the need for rodenticide through the introduction of owls and other predators. Many sites, including Hungry Owl, offer owl boxes for purchase to attract these amazing natural rodent regulators.

Remember those feelings of happiness when you encounter a healthy, wild animal. The next time you enjoy the sprint of a roadrunner, beauty of a barn owl, or the majesty of a bobcat remember that these charismatic species depend on healthy populations of rodents to survive. We can all play our part in protecting our local predators and ecosystems and continue to enjoy these wild encounters.

Sedgwick Reserve depends on the support of our donors to fund our docent program, support researchers, and offer community-focused public events. Your gift ensures our ability to continue supporting world-class research and education with global impact.

Support
Sedgwick Reserve today!