THE VALLEY FEVER

April 2025

Welcome President-Elect Mario E. Gaytan

Mario Gaytan has had an interest in ecology since he was a child. Growing up in the Santa Cruz area, he spent much of his childhood roaming the redwood forests as well as exploring the oceans and tidepools. He earned a bachelor's degree in marine biology studying seaweed ecology from the Scripps Institution of Oceanography at the University of California, San Diego, and a master's degree in biology studying habitat restoration effects on invertebrates from California State University, Bakersfield. Mario works for the Center for Natural Lands Management and manages the 26,400-acre Panoche Valley Preserve, located in the San Joaquin Desert ecoregion. His generalist approach has allowed him to work with a diverse range of organisms, including amphibians, arthropods, mammals, plants, reptiles, and seaweed. Mario currently conducts research and management activities for the CA red-legged frog, CA tiger salamander, listed large branchiopods, listed bumblebees, San Joaquin antelope squirrel, San Joaquin kit fox, western pond turtle, and all Central Valley kangaroo rats. He is particularly interested in the San Joaquin Valley mydas fly, a relatively unknown rare species, in which he is bringing increased awareness to, hoping to aid in its recovery.

Welcome Brian Fagundes as Audit Committee Chair

Brian is Point Blue Conservation Science's Tulare County Working Lands Partner Biologist based in the Visalia Natural Resources Conservation Service (NRCS) office. He works with farmers, ranchers, and foresters in the region to implement conservation actions. As a proud Azorean American from Hanford, California, local farms, dairies, the Sierra Nevada, and Pismo Beach served as their childhood playgrounds and inspiration to become a wildlife biologist. They completed a B.S. in Wildlife Conservation and Management, and a B.A. in Geography from Humboldt State University (HSU). While at HSU he participated in Conclave and quiz bowl, attending TWS conferences and Western Section meetings as a TWS member since 2008. After working from non-profits to private companies to state and federal agencies on a diversity of lands all over the world, their roots in agriculture led him back to HSU (now Cal Poly Humboldt) to complete a M.S. in Natural Resources assessing the ecosystem service of Aleutian cackling geese on livestock pastures. Over the years Brian has studied frogs, mesocarnivores, passerines, raptors, salamanders, salmonids, small mammals, ungulates, waterfowl, and native plants. Working within the nexus connecting agriculture, human communities, and nature to help create a more wild and resilient future warms his soul.

Welcome Francesca Cannizzo as Student Outreach Chair

Francesca Cannizzo has over 15 years of experience working in the environmental and conservation field. She studied environmental management and protection at California Polytechnic State University, San Luis Obispo. Over the course of her professional career, she has worked for several state and federal governments, academic institutions, and restoration organizations. Her work experience includes identifying, establishing, restoring, and managing ecological habitats. Francesca is passionate about supporting students who would like to pursue careers in natural resource-related professions.

Welcome Carolyn Buesch as Diversity Committee Chair

Carolyn graduated from HSU in 2016 with a B.S. in Wildlife Management and Conservation with a minor in geospatial studies. She has worked seasonal jobs for the U.S Forest Service and the California Department of Fish and Wildlife, surveying for northern goshawks, boreal toads, Mexican spotted owls, salmon, and nutria. She currently works for the California Department of Fish and Wildlife as an Environmental Scientist. She's been involved with the Wildlife Society Chapters as the technology chair for the Sac-Shasta Chapter (2021-2024), student member of the North Coast Chapter (2017), and a member of the national organization since 2020.

Congratulations to Randi McCormick—Winner of the *Champions of Wildlife* Award

The San Joaquin Valley Chapter is proud to nominate a highly dedicated, long-time chapter member and true Champion of Wildlife. Over the past few decades, Randi McCormick has supported and been instrumental in the conservation efforts for several of our San Joaquin Valley endemics, including the blunt-nosed leopard lizard, the San Joaquin kit fox, giant kangaroo rat, Bakersfield cactus, and San Joaquin antelope squirrel. Through her efforts, Randi has supported training on these endangered and threatened species through the seasonal hiring of early career professionals to conduct protocol surveys, and has participated in long term trapping studies in some of the last intact habitats that support these species. She has selflessly invested in the Chapter through sponsorships and employee contributions to various countless wildlife workshops and the annual Communities Conference. She has served as San Joaquin Valley Chapter Representative to the Western Section, and has completed her three-year term as Western Section President. Her mentorship has inspired many young professionals and seasoned biologists alike. She believes in learning for life and giving back to the community, including fostering donation and work programs that provide donation of services to Wind Wolves Preserve, Tejon Ranch Conservancy, Center for Natural Lands Management, and California Living Museum, among others.

We are therefore honored to present our San Joaquin Valley Chapter *Champions of Wildlife* award to Randi McCormick.

Photo (above) of Randi McCormick receiving her *Champions of Wildlife* Award, presented at the 72nd Annual Meeting of the Western Section of The Wildlife Society, Visalia Convention Center, February 3-7, 2025. Featured in photo includes (from left to right) Alex Welch, Randi McCormick, and Howard Clark. Photo by Christine Van Horn Job

Photo (left) of award presented to Randi McCormick. Photo by Howard Clark. All photos used with permission.

The San Joaquin Valley Chapter is on Instagram

The San Joauqin Valley Chapter is on Instagram—our account name is @sanjoaquintws. Feel free to send photos of wildlife or fieldwork for posting to:

Howard Clark (*howard.clark.jr@gmail.com*) or simply tag the IG account in the app.

Western honey bees (*Apis mellifera*) on Matilija poppy (*Romneya coulteri*), northern San Diego Co. Photo by Howard Clark. Used with permission.

Workshop Summaries

Ashleigh Pryor, San Joaquin Valley Chapter, Program Development; *tws.sjv.prodev@gmail.com*

Safe Rattlesnake Handling Workshop – March 8, 2025

The San Joaquin Valley Chapter of The Wildlife Society, in collaboration with Dr. Emily Taylor of Central Coast Snake Services, hosted a 2025 Safe Rattlesnake Handling Workshop at the Bakersfield BLM Office, in Bakersfield, California. The workshop consisted of a half-day classroom session covering ecology, conservation, identification, and behavior of rattlesnakes and a half-day hands-on session, where individuals took turns learning how to properly and safely handle a rattlesnake under the guidance of Dr. Emily Taylor. We had 21 attendees and raised $500 through a bonfire t-shirt campaign to be donated to Central Coast Snake Services for their free rattlesnake relocation services.

Photo highlights by Ashleigh Pryor, used with permission.

CESA Workshop – October 15-16, 2024

The San Joaquin Valley Chapter of The Wildlife Society, in collaboration with the California Department of Fish and Wildlife, presented a 2024 CESA Workshop on October 15 and 16, at the River Center in Fresno, California. The workshop consisted of two days of lectures covering the California Endangered Species Act and available methods for Take Authorization including MOUs and ITPs focusing on CDFW Region 4.

Photo by Ashleigh Pryor, used with permission.

Natural Communities Conference Summary

Alex Welch, San Joaquin Valley Chapter, President; *tws.sjv.president@gmail.com*

Ashleigh Pryor, San Joaquin Valley Chapter, Professional Development Chair; *tws.sjv.prodev@gmail.com*

San Joaquin Valley Natural Communities Conference - March 20, 2025
Hodel's Country Dining, Bakersfield, CA

The Chapter hosted a Natural Communities Conference in March and there were a total of 206 attendees. We had 208 NCC attendees in 2024, so a similar outcome this year. Below are the highlights of the Conference.

The Vendors:
- Alexis Noble's crochet animals
- Gisa Nico's children's books

Sponsors:
- Althouse and Meade, Inc.
- Dudek
- California Resources Corporation (CRC)
- South Valley Biology Consulting, LLC (SVB)
- Stantec
- Westervelt Ecological Services (WES)
- McCormick Biological, Inc.

Highlights:
- Fundraiser for ESRP generated $5000
  - At least 24 giveaway packages donated by the community
  - 6 silent auction packages donated by the community
- 2025 NCC logo made by Robin Phanco, printed on awesome and popular shirts
- Bakersfield and Temblor legless lizards brought by Ted Papenfuss
- 305 minutes of talks; 16 quick talks, 11 standard length 20-minute talks
  - 33 submitted abstracts for talks. All were accepted
  - 7 submitted abstracts for posters. All were accepted
  - Presenters ranged from student researchers to established professionals spanning representatives from academic, non-profit, private, public sectors

Conference Sponsor Logos with center conference logo specially created by Robin Phanco. Used with permission.

Natural Communities Conference (continued)

Alex Welch, San Joaquin Valley Chapter, President; *tws.sjv.president@gmail.com*

Ashleigh Pryor, San Joaquin Valley Chapter, Professional Development Chair; *tws.sjv.prodev@gmail.com*

Our sponsors for the ESRP Donation Giveaway and Silent Auction:

Acorn Naturalists
Alex Lyon
California Central Coast Chapter of TWS
California Watercolor
CALM Zoo
Calvin Won Photography
Crusader Brewing Company
Erica Kelly
Happy Little Pixels Photography
Kacy Twist
Larry Saslaw
McCormick Biological, Inc.
Salvarae
San Francisco Bay Area Chapter of TWS
Save the Snakes
Sequoia Riverlands Trust
StonePine Studios
Tejon Ranch Conservancy
The Hive
Truly Wild
Vortex Optics
Wildnote

Photo of the Conference by Ashleigh Pryor; used with Permission..

Future Chapter Workshops

Ashleigh Pryor, San Joaquin Valley Chapter, Professional Development Chair; *tws.sjv.prodev@gmail.com*

Temblor Legless Lizard Workshop:
The workshop is scheduled for April 9, 2025. The workshop is full and has a waitlist.
It will be the first workshop for the Temblor legless lizard.

Skull ID Workshop:
The workshop is scheduled for April 26, 2025 at the Bakersfield BLM office.
Registration will open the week of April 7, 2025.
This will be a lower-cost workshop.

Other workshops on the schedule for 2025:
Blunt-nosed Leopard Lizard – May TBD
CESA – October TBD
Small Mammal Trapping – November TBD

Scientists enlist surprising helpers in effort to protect rare animals: 'A really nice outcome' — The problem these teams are helping solve is urgent

By Christine Dulion, The Cool Down; *website: thecooldown.com; article date: March 27, 2025*

In Central California, a team of adorable, tail-wagging conservationists is helping scientists protect an endangered fox from the effects of solar farms in its habitat.

These rescue dogs, trained by Working Dogs for Conservation, help sniff out signs of the hard-to-track San Joaquin kit fox — a cat-sized, big-eared carnivore whose numbers have dwindled to fewer than 3,000 in the wild.

As Yale Climate Connections reported, these dogs use their powerful noses to detect scat samples left behind by the foxes in the desert valley — without ever disturbing the animals.

Since the kit fox is nocturnal and lives underground, it's elusive. However, this noninvasive method allows researchers to better understand the species' habitat and population needs and inform eco-friendly land management decisions in the valley, which is the foxes' only habitat.

"Just like the children's book says, everybody poops," Pete Coppolillo from Working Dogs for Conservation told Yale Climate Connections. "And so … we don't have to catch them. We just find their scats and that can tell us a tremendous amount about the population and how they're doing and how what we're doing affects them."

The problem these teams are helping solve is urgent. The San Joaquin Valley is a hub for solar farm expansion, which can bring clean, affordable energy to millions of homes and help us move away from polluting dirty energy sources, which include coal, oil, and gas. But as more of the land is developed, it's critical to make sure wildlife is not paying the price.

So far, the team has found the fox is resilient in the face of these changes. "So that's a really nice outcome because it means we can do both — make our energy more climate-friendly and do it in a way that is wildlife-friendly," Coppolillo told Yale Climate Connections.

Working Dogs for Conservation is on a mission to harness canine talents in a way that makes conservation more efficient and effective. All the dogs are rescues, so not only has the group given them forever homes, but it has also given them meaningful work.

As the group's Endangered Kit Fox Project puts it, "We are helping make green energy even greener; not only is solar energy carbon-neutral and infinitely renewable, but our dogs are helping our partners make sure that it's also wildlife-friendly."

Plus, many of the dogs are cross-trained for multiple projects. These include tracking invasive species, detecting guns, finding poachers to defend animals at risk, and identifying harmful chemicals and toxins in the environment.

For anyone inspired by these four-legged eco-warriors, there are plenty of ways to make a difference in causes you care about. You can also directly help Working Dogs for Conservation by donating or volunteering your time or skills: *https://wd4c.org/more-ways-give*.

Photo Credit: Working Dogs for Conservation. Permission provided by *The Cool Down.*

Featured Endangered Species
Meet the San Joaquin Kit Fox: A Little Canine with Big Charm!

Rainey Davis, Former President (2021-2023), San Joaquin Valley Chapter; *rdavis@mcbioinc.com*

Picture this: a tiny, sleek fox roaming your backyard, ears perked and nose twitching as it embarks on a new adventure. That's right, the San Joaquin kit fox – one of California's most captivating little canines – might just be closer than you think! As spring settles in, the curious pups are emerging from their dens, ready to explore the world beyond. So, keep your eyes peeled; you might just spot one of these dashing explorers on your next evening walk. Although they're small in size – about the same as a house cat and weighing just 4-5 pounds – don't let their size fool you. These foxes are savvy hunters, mostly preying on mice, squirrels, and rabbits in the wild. But in urban areas, they've become opportunistic, scrounging for pet food left outside or scavenging for trash. While their adaptability is impressive, it's a reminder to never feed wildlife, as tempting as it may be. Let's protect these fascinating creatures by respecting their space, and perhaps, just maybe, you'll catch a glimpse of one of these clever kit foxes on their nightly adventures.

Radio-collared San Joaquin kit fox with pups. Photo courtesy Rainey Davis, used with permission.

BOOK REVIEW

California Amphibians and Reptiles

Review by Howard O. Clark, Jr., ®CWB, Chapter Representative—The Wildlife Society—Western Section; *sjv.website@gmail.com*
reprinted with permission by the Tucson Herpetological Society, Tucson, AZ

Herpetologists Robert W. Hansen and Jackson D. Shedd have produced a much needed and long-awaited field guide to the amphibians and reptiles in California. According to the Introduction, California is home to 209 species of amphibians and reptiles: 51 salamander species, 28 frog species, 16 turtle species, 64 lizard species, and 50 snake species. Out of these categories, 32 species are not native to California. However, out of the 209 species, 51 are endemic, meaning they are not found anywhere else in the world. The salamander group has the highest number of endemics. In addition, 35 species (or subspecies) are listed as threatened or endangered at the state and federal level.

The book is divided into several sections, including an Acknowledgments section, and Introduction, Bioregions of California, Biotic Communities of California, Conservation of California Amphibians and Reptiles, and Identifying California Amphibians and Reptiles. These sections are important to gain a good understanding of California and recognizing that the state fosters an incredibly diverse bio-community. These different habitat types and bioregions support a variety of herpetofaunal species which can supply decades of study and exploration. These introductory sections are highly recommended reading as they provide the context in which the species accounts are written and help visualize the land covers when studying the range maps. A special note about the acknowledgments section: this section spans two pages and celebrates the idea that field guides are not created in a vacuum. The collaboration and coordination that it took to put this guide together must have been astounding, and it represents the level of networking and communication the authors experienced in gathering the most updated and accurate information possibly from the herpetological scientific community.

After the introductory material, the guide jumps into the species accounts. The accounts cover the five herpetofauna Orders currently occurring in California (see the Appendix for a breakdown). Each account begins with a header noting the species common name followed by the Latin name (with the name of the person[s] first describing the species with the year of the publication). Also included in the header area are the page numbers where the range map and plate (photo of the species) can be found in the guide, and, depending on the species, if it is endemic, introduced, or **venomous** (in bright **red** text). Each account is divided into several sections including Identification, Similar Species, Habitat, Range / Elevation, Activity / Behavior, Diet, Reproduction, and Conservation / Remarks. These accounts are detailed, highly informative, and often span more than one page. Species taxonomy is an ongoing study focus, and when

California Amphibians and Reptiles

By Robert W. Hansen and Jackson D. Shedd

Princeton Field Guides

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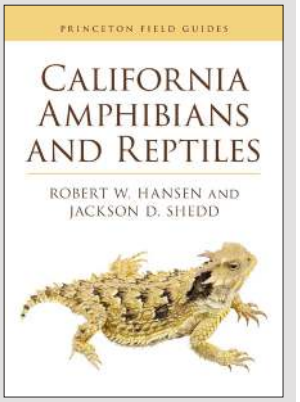

Book cover and other information.

the taxonomic status of a species changes, adopting the new classification takes time. Within the Conservation / Remarks section, the authors direct the reader to see the "Taxonomic Notes" section starting on page 492, if applicable.

The next section features the color plates. The photos occur in the same species order as the species accounts, and are presented in a unique format. Rather than photographing animals in their natural habitat, they are instead featured on a white background. This allows for consistent lighting and absent of any background distractions. All animals are facing generally the same direction, i.e., to the right, and multiple species are grouped on one page. Juveniles, subadults, and hatchlings are represented, and if applicable, subspecies. Grouping representations as featured in the guide, provide easy comparison while in the field. Another highlight in the guide is photographs of "forms"—that is—phenotypes that are not necessarily subspecies, but are different enough to warrant additional photographic representations. For example, I had an opportunity to experience one of these forms. In July 2023, I was monitoring the Yosemite Toad (*Anaxyrus canorus*) with a colleague along a high Sierra Mountain pass (See Clark and Yorba 2023). One of the authors (Hansen) drove through the area and stopped to chat a bit. He explained that he was after a Western Fence Lizard (*Sceloporus occidentalis*) "High Sierra" variant occurring in Fresno County. A few hours later he came back with a fence lizard sequestered in a plastic container featuring the brilliant breeding male coloration (see color plate on page 331). Later I learned that these variants were previously considered a subspecies known as the Sierra Fence Lizard (*S. o. taylori*). However, it has since been shown that the coloration has arisen independently across the high Sierra. It appears that the variants are more closely related to the

lizard populations that occur in the same river drainages rather than to other high elevation populations (R. Hansen pers. comm., and see pages 158 and 495; more information in Leaché et al. 2010).

The Color Plate section wraps up with an incredibly detailed treatment of the larval forms of California amphibians. The larval forms are illustrated rather than photographed, as photographing larval forms would have been challenging. The larval section includes a mini species account focusing on the larval forms and the illustrations include different stages of each species.

The Range Maps form the cornerstone of the accounts and photos. These maps tie everything together showing where the species covered in the guide occur and are the most accurate maps to date. Maps are arranged in the same order as the accounts and photos. Some maps feature one species, while other maps will combine multiple species when feasible, especially for closely related species that may have hybrid zones, indicated by the feather-blending of colors representing the two species hybridizing. On some maps, isolated occurrences are represented by a dot. For example, on the Mojave Desert Tortoise (*Gopherus agassizii*) map, there are occurrences within the Anza-Borrego Desert State Park as well as in western Riverside County outside of the usual range. The status of the tortoises within Anza-Borrego is unclear, but some genetic information indicates that they may be native. For example, Marshal South, famous for his articles published in *Desert Magazine* in the 1940s about living off the grid in Anza-Borrego with his family, wrote about finding tortoises and keeping them as pets (Lindsay 2005, but see Manning 2018). The maps are also key in assisting with species identification. If you are not sure which species you may be encountering, knowing where you are on the map will help.

The three core sections—species accounts, color photo plates, and range maps—make up the bulk of the guide. The organization of these sections differ from other guides, such as Stebbins and McGinnis (2012). In their guide, the species accounts have a range map and a photo of the animal within the same pages. Grouping these three elements together allow for easy reading where the guide user can glance from the range map to the account text with ease, as well as looking at the species photo while the account discusses the species description. This formatting arrangement is ideal for experienced herpetologists that already have a solid identification of the species they are researching. However, this guide takes a different approach (the following is a summary of a pers. comm. I had with R. Hansen). When creating the guide, the authors felt that the target reader would be someone who is mainly interested in species identification. Placing closely related and / or resembling species together in the color plates would benefit quickly identifying the species. The reader then would consult the range maps to see if the tentative identification makes sense based on geography. The last identification step would be to read through the account and take careful note of similar looking species. An additional advantage of grouping range maps together is it will assist in assessing biogeographic patterns. For herpetologists looking for patterns in biogeography, looking at grouped maps would be easier than searching through maps scattered over hundreds of pages (R. Hansen, pers. comm.).

The last sections of the guide include Taxonomic Notes (previously mentioned), a glossary, a Resources section (online, community science, books, scientific publications, etc.), **Venomous Snakebite and Rattlesnake Myths** (a must read!), Index to Common and Scientific Names, and a Species Checklist.

Overall, *California Amphibian and Reptiles* will be a landmark field guide for years to come. Although a rather hefty volume (2.4 lbs; 6 × 8.5 × 1.5 inches), it can be easily transported in a backpack or left in the car for quick reference. It is easy to use and can save hours of research for those wanting herpetological information quickly. Guides of this caliber come once or twice in a lifetime, and I highly recommend *California Amphibian and Reptiles* as a capstone reference in your library.

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Appendix. Orders and families covered in the guide.

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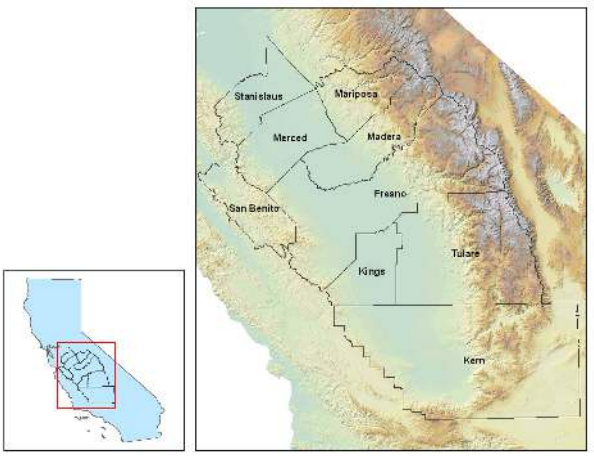
The San Joaquin Valley Chapter Area

The San Joaquin Valley Chapter covers a nine county area that includes areas of the San Joaquin Valley, Coastal Range, Sierra Nevada Range, and western Mojave Desert.



The Goals of the Society and the San Joaquin Valley Chapter

- Develop and maintain professional standards for wildlife research and management.
- Enhance knowledge and technical capabilities of wildlife managers.
- Advance professional stewardship of wildlife resources and their habitats.
- Advocate the use of sound biological information for wildlife policy decisions.
- Increase public awareness and appreciation of the wildlife profession.