

70TH ANNUAL MEETING
The Wildlife Society
WESTERN SECTION



FEBRUARY 6-10, 2023
RIVERSIDE CONVENTION CENTER



BE PART OF SOMETHING WILDER!

www.tws-west.org

How to Stay in Communication with the Western Section of The Wildlife Society:

- Annual Meeting Help Desk - Email: tech_help@tws-west.org
- Join our email list: <https://tws-west.org>
- Western Section Link Tree: <https://linktr.ee/westerntws>
- Zazzle Store: https://www.zazzle.com/store/tws_western_section
- Discord: <https://discord.com/invite/8ZBEBWN4tZ>
- Slack: <https://twswesternsection.slack.com/ssb/redirect>
- Visit our website: <http://www.tws-west.org>
- Instagram: <https://www.instagram.com/westerntws/>
- Facebook: <https://www.facebook.com/tws.western>

Save the Dates! Future Western Section Annual Meetings in Development

- February 5-9, 2024: Doubletree by Hilton Sonoma Wine Country
- February 3-7, 2025: Reno, NV – Peppermill Resort

COVID 19 – Your health and safety are our top priority

As of the print date, there are no vaccination or mask requirements in Riverside County. Even though masks are not required, they are strongly recommended. We encourage meeting attendees to take Covid tests each morning of the meeting. There is a limited supply of Covid tests available for purchase at the registration desk. There are also free masks available at registration.

Please do not attend the meeting in-person if you have recently tested positive for Covid-19 and please follow the CDC isolation procedures until you are no longer infectious. If you are unable to attend the annual meeting because you test positive for COVID-19, you can switch to virtual participation at any time. All participants, regardless of whether they are participating virtually or in-person, will have access to the recordings of the conference for up to three months after the conference.

Western Section Code of Conduct

Guidelines for Professional Behavior at a Professional Meeting: The Western Section of The Wildlife Society's mission is to enhance the ability of wildlife professionals and wildlife students to conserve diversity, sustain productivity, and ensure responsible use of wildlife resources and their habitats.

To accomplish this, we encourage our members to present novel ideas and share their unique experiences to help us progress as a profession. We thank you in advance for being respectful and keeping an open mind to new ideas and perspectives presented. Thank you!

Link to full Code of Conduct including how to report inappropriate behavior:
<https://riverside2023.tws-west.org/code-of-conduct/>

Session Abstracts

To conserve paper, abstracts for concurrent and poster sessions are available at:
<https://tinyurl.com/2023abstracts>

OMBUDS SERVICE

Do you need a neutral, confidential resource to discuss concerns regarding conference behavior and activities?

ombuds@tws-west.org

Ombuds attending the conference:

Eveline Larrucea: eveline_ombuds@tws-west.org

Wendy Loeffler: wendy_ombuds@tws-west.org

Or fill out an online form and find more information at:

<https://tws-west.org/ombuds-about/>

Service is available both in person and remotely



2023 Abstracts

The Western Section of The Wildlife Society 2023 Annual Meeting

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Annual Meeting - Powered by Whova

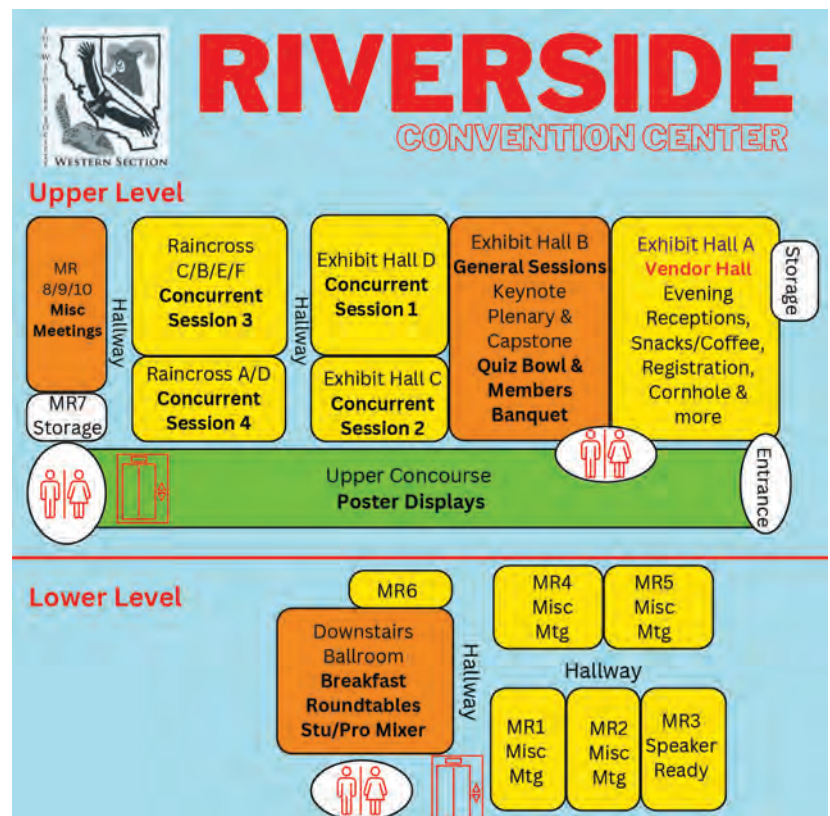
Once again, we are using Whova to run the meeting. You may access Whova either online, or by downloading the Whova App. Use Whova to create personalized schedules; engage with other attendees; read abstracts; and receive real-time notifications about last minute schedule changes and more.

All attendees who have registered for the conference are automatically registered in Whova with the same email address used for conference registration. Attendees can sign into Whova online at:

https://whova.com/portal/webapp/amot_202302// after receiving the invitation email with the access credentials, or by resetting their password for those who have used Whova before.

Whova Troubleshooting Tips:

- Whova online works best on the Chrome browser
- Clear your web browser history and cache
- Update your web browser to most recent version
- Disconnect from company VPN
- For Zoom issues - Use a wired internet connection, or move closer to your router
- When all else fails - restart your computer



MEMBERS TOWN HALL & AWARDS CEREMONY

THURSDAY FEBRUARY 9, 2023 – 3:00PM TO 5:00PM

3:00-3:15 REFRESHMENTS & MINGLING – LET'S CELEBRATE!

Snacks, sweets, and punch (with or without champagne)!

3:15-3:35 WELCOME

A brief welcome from TWS CEO, TWS President & TWS-WS President

3:35-3:50 COMMITTEE REPORTS

*Hear what all the great section committees are up to!
Don't forget to attend the committee meetings @ 5pm!*

3:50-4:05 CHAPTER REPORTS

*Hear updates from chapters throughout the section!
Don't forget to attend the chapter meetings @ 8pm!*

4:05-4:10 TREASURER'S REPORT

A recap of the financial standing of the section.

4:10-4:25 MEMBER COMMENTS

Open forum. Your chance to make yourself heard!

4:25-4:55 AWARDS PRESENTATIONS

Conservation, service, mentoring awards & more!

4:55-5:00 ADJOURN



The Western Section of The Wildlife Society 2023 Annual Meeting

MESSAGE FROM THE MEETING CHAIR



Hello Wildlifers!

Welcome to Riverside and our 70th Annual Meeting! We're so glad that you've made the decision to include the Western Section of The Wildlife Society in your professional development journey. As we continue to adjust accessibility alternatives, we're also thankful to be able to offer this meeting as an in-person event again this year with virtual options. I encourage you all to maximize your experience by attending as many learning and networking opportunities as you can. Along the way, please show appreciation to our presenters, volunteers, board and staff for all of their hard work in bringing these offerings to our members.

Take a look around the meeting at your fellow professionals, aspiring early career professionals and students - all of us wearing many hats and facing constant change. In addition to the obvious challenges that confront wildlife research, conservation and management efforts, we face obstacles in increasing our reach, guiding the next generation of professionals, or finding our own path: challenges such as competing interests, different backgrounds and points of view. Our challenge is to work together to directly address obstacles and actively create opportunities for wildlife professionals, collaborators, stakeholders and those future wildlife biologists who are out there! Throughout my career, I've been impressed that those who pursue the wildlife profession are people of action who care deeply about their work. For the 2023 Annual Meeting, I would like us each to throw down the figurative gauntlet, be honest with each other and ourselves, and take meaningful steps towards meeting challenges in wildlife science, conservation and management head on. I hope that this meeting succeeds in equipping each of you with new knowledge, new relationships and alternative points of view that will help you meet some of those challenges.

Sincerely,

Randi McCormick

2023 TWS-WS Annual Meeting Chair - TWS-WS President-Elect – Principal Biologist/Owner McCormick Biological, Inc.

A recruitment graphic for the Aspen environmental group. It features a green background with a white text box. The text reads: "Join Our Team!" followed by "California Biologists". Below this is the Aspen environmental group logo, which consists of the word "Aspen" in a large, bold, white font, with "environmental group" in a smaller, white font below it. At the bottom, it says "Apply Now" and "www.aspeneg.com". The graphic is flanked by two images: on the left, a close-up of tall green reeds in water; on the right, a person wearing a hat and waders, carrying a blue bucket and a net, wading through a river.

The Western Section of The Wildlife Society 2023 Annual Meeting



The US Bureau of Land Management Salutes Researchers Supported by the Central Coast Field Office



DIETARY ANALYSIS OF BLUNT-NOSED LEOPARD LIZARD AND SYMPATRIC LIZARDS USING DNA METABARCODING **Mark J Statham**; UC Davis; Statham@ucdavis.edu; Cody M. Aylward, Jenna Braun, Michael F Westphal, Benjamin N Sacks

WATERY GOING TO DO ABOUT DROUGHT IMPACTS ON LIZARDS?: OSMOREGULATION OF BLUNT-NOSED LEOPARD LIZARDS **Tess McIntyre**; California Polytechnic State University, San Luis Obispo; temcinty@calpoly.edu; Savannah J. Weaver, Emily N. Taylor, Michael F. Westphal

SPATIAL DISTRIBUTION OF TEMPERATURES LINKED TO AN ECTOTHERM'S THERMOREGULATION AND MOVEMENT **Ian J Axsom**; Cal Poly, San Luis Obispo; iaxsom@calpoly.edu; William T. Bean

LOSS AND IMPENDING RECOVERY OF PANOCHÉ PLATEAU BLUNT-NOSED LEOPARD LIZARDS (GAMBELIA SILA) **Rory S Telemeco**; Fresno Chaffee Zoo; RTelemeco@fresnochaffeezoo.org; Mark Halvorsen, Lynn Myers, Steven Sharp, Michael Westphal

SPATIAL ECOLOGY OF THE LITTLE PANOCHÉ VALLEY BLUNT-NOSED LEOPARD LIZARD (GAMBELIA SILA) POPULATION **Stephanie L Doria**; California State University Fresno; sldoriakelly@mail.fresnostate.edu; Keyanna Pinto, Kira Gangbin, Kathryn Ramirez, Cha Thao, Mike Westphal, Rory Telemeco

EFFECT OF RADIO-TRANSMITTER COLLAR COLOR ON PREDATION PROBABILITY IN ENDANGERED BLUNT-NOSED LEOPARD LIZARDS (GAMBELIA SILA) IN THE PANOCHÉ PLATEAU **Keyanna A Pinto**; Department of Biology, California State University, Fresno; Jalebi@mail.fresnostate.edu; Stephanie Doria, Emily Bergman, Andrew C. Kraemer, Kathryn D. Ramirez, Michael Westphal, Rory S. Telemeco

MANAGEMENT OF BLUNT-NOSED LEOPARD LIZARD (GAMBELIA SILA) ASSURANCE COLONY AT THE FRESNO CHAFFEE ZOO, YEAR TWO! **Mark Halvorsen**; The Fresno Chaffee Zoo; mhalvorsen@fresnochaffeezoo.org; Steven Sharp, Rory Telemeco

PREDATION ON CALIFORNIA RED-LEGGED FROG EGGS BY OVERWINTERING ROUGH-SKINNED NEWT LARVAE **Karen M Kiemnec-Tyburczy**; Cal Poly Humboldt; karen.kiemnec@humboldt.edu; Emme Nix, Michael Westphal



The Western Section of The Wildlife Society 2023 Annual Meeting

GENERAL INFORMATION

Job/Messages/Announcements Board - Post and view job announcements on the job board located near the Registration Desk. Please do not post résumés as we cannot be responsible for the security of your personal information.

Raffle and Silent Auction - We encourage everyone to purchase raffle tickets and bid high on the online auction! All raffle ticket sales and auction purchases will be donated to support Western Section students and early career professionals. Raffle items will be displayed in the Exhibit Hall Tuesday and Wednesday. Due to state laws, we can only sell raffle tickets in-person in Riverside at the meeting. We encourage everyone to purchase raffle tickets, which are available at the Registration Desk or from the Western Section Executive Board members and volunteers. Consider buying some raffle tickets at the registration table when you pick up your registration packet! The raffle will be a bucket raffle which will be held during the Wednesday evening trivia event. Place tickets in the buckets by 8pm Wednesday for the prizes you hope to win. An online auction will also be held this year. This is the place to bid on some one-of-a-kind items! The online auction will close at 1 pm on Thursday, February 9th. Link to Online Auction: <http://www.biddingowl.com/TWSWesternSection>

Professional Development - The number of contact hours for each workshop and contributed paper session is equal to the number of actual hours spent in a workshop or session and does not include time allotted for breaks or lunch. Generally, attendance at the TWS-WS Annual Meeting is not creditable for an initial application for Certified Wildlife Biologist or Associate Wildlife Biologist (but this year's pre-meeting events are!); however, meeting hours may be credited one for one toward CWB Recertification. For example, if you attend four, 2.5-hour technical sessions (sorry, social events do not count!) you may claim 10 hours toward a Professional Development Certificate (in category 1) or toward Certified Wildlife Biologist renewal (also category 1). Speaking in or chairing a session is usually credited at 1 hour = 2 hours. Additional information on the TWS Professional Development Certificate and Certified /Associate Wildlife Biologist programs is available from the TWS-Western Section Professional Development Committee or on the TWS website. Please visit the TWS website (www.wildlife.org) for additional details or contact your TWS-Western Section Professional Development Committee. Email: pdc@tw-west.org

Certification Program – TWS. Certification of wildlife biologists is a service provided by The Wildlife Society for wildlife professionals who may desire a peer evaluation statement. The Wildlife Society is committed to the sound stewardship of wildlife resources under the guidance of well-educated, experienced, and dedicated wildlife biologists. To further this aim, The Wildlife Society has established standards for certifying the credentials of qualified wildlife biologists.

Reusable Name Badge Holders. The Western Section uses reusable name badge holders. At the end of the meeting, please drop off your name badge holder at the Registration Desk so it can be cleaned and used again next year. Thanks!

Speaker Practice Room. We have a room available for speakers to practice their presentations. Obtain a key from the Registration Desk. Advance signups suggested.

Recorded Sessions. The speakers in the live General and Technical Sessions will be recorded, and the video files will be available for on-demand viewing in *Whova* for meeting registrants who missed the live session or want to watch it again! Our goal is to get these recordings posted within 48 hours of the sessions. All live events to be recorded are tagged in the agenda as Live/Recorded. Online viewing will be available for three months following the meeting.

About our Meeting Logo. The 2023 meeting logo is based off of the theme of "Challenge Accepted," which evokes the idea of superheroes. The three species shown in the logo - California condor (*Gymnogyps californianus*), nēnē (*Branta sandvicensis*), and sage grouse (*Centrocercus urophasianus*) - are all species of conservation concern in the states covered by the Western Section, and in the spirit of the theme, I put them in superhero capes. The condor, which is one of the most remarkable conservation success stories of the past century, is flying high. The nēnē, which is recovering but not quite as big of a comeback yet, is stretching its wings to take off, while the grouse, which is still subject to significant fights over recovery plans, gazes up in aspiration. The background is a stylized version of the unique landscape of southern California, featuring the arid hill country of the meeting location. Finally, all the fonts are based on vintage comics and adventure movie posters, to play into the theme.

--Jess McLaughlin, artist.



**Join The 2023
TWS-West
Annual Raffle
and Auction**

Conference attendees, please join the fun and participate in our Annual Online Silent Auction and in-person Raffle. We've received some great prize-donations and ALL proceeds raised will benefit wildlife students and early career professionals. Show your support for the next generation of biologists by bidding online or purchasing raffle tickets. Items will be displayed in the Exhibit Hall and additional information will be provided on the display tables, on *Whova*, and at the Registration Desk. Good Luck!!

RAFFLE: Tickets can be purchased at the Registration Desk. Prize drawings will begin at 8:30 pm on Wednesday, February 8th alongside the Trivia event.

AUCTION: Online auction ends at 1 pm on Thursday, February 9th. In-person winners MUST pick up prizes by 1 pm on Friday, February 10th.



Air Quality Protection | Greenhouse Gas Reduction | Infectious Disease Prevention
Bee Population Defense | Oil Spill Prevention and Response | Drinking Water Monitoring
Newborn Screening for Treatable Disorders | Brownfields' Cleanup
Chemical and Radiological Disaster Response | Protect Fish and Wildlife | Crop Protection
And Much, Much More!

About the California Association of Professional Scientists

CAPS represents more than 5,000 highly educated, specially trained state-employed scientists working in over 30 state departments and 81 different scientific classifications. Virtually all State Scientists have a baccalaureate degree. Many have master's degrees and PhD's. The vast majority have undergone extensive professional training.

CAPS members protect the public from life-threatening diseases, safeguard our wildlife and abundant natural resources, and protect our air and water from toxic waste and pollution. CAPS is dedicated to ensuring that California's State Scientists receive fair pay and benefits for their important work.

www.capsscientists.org | www.calscientists.org

The Western Section of The Wildlife Society 2023 Annual Meeting

ANNUAL MEETING PLANNING COMMITTEE

The Western Section Annual Meeting is organized by an incredible team of dedicated volunteers. We thank them for their service - this meeting wouldn't have been possible without their hard work, kindness and creativity.

Meeting Chair/President-Elect TWS-WS	Randi McCormick
President – TWS-WS.....	Katie Smith
Professional Development Events.....	Janine Payne
Project Manager & Meeting Planner.....	Candace Renger

Team

Audio Visual Captains.....	Sam Sosa (Chair), Don Yasuda, John McNerney, Dave Riensche, Leslie Koenig, Debra Hawk
Breakfast Roundtable	Lisa Fields (Chair), Wendy Loeffler, Shay Zanetti, Kelly Holland, Thea Wang
Capstone Presentation	Katie Smith
Children's Activities.....	Luma Fowler
Cornhole Tournament.....	Rick Williams
Diversity Committee.....	Bayan Ahmed, Thea Wang
Exhibit Hall & Wildlife Shirt Contest.....	Callie Amoaku
Karaoke & Games	Laura Coatney, Matthew Bettelheim
Keynote Speech Coordinator.....	Jim Sedinger
Local Arrangements.....	Brock Ortega, Diana Ruiz, Kiran Stacy, Kim Klementowski, Michele Felix-Derbarmdiker, Chrissy Sousa, Nick Peterson
Logo Gear & Zazzle Store	Lisa Achter
Member Awards Ceremony.....	Rich Burg, Katie Smith
Onsite Registration	Terri Black
Photo Collection Submissions & Slideshow	Eveline Larrucea
Photographer - Meeting Events & Awards.....	Janine Payne, Diana Ruiz, John McNerney, Chrissy Sousa
Plenary Session.....	Randi McCormick
Poster Session Co-Chairs	Carlos Alvarado, Allison Fuller
Printed Program Compilation.....	Nick Peterson
Printed Program Editing.....	Debra Hawk, Rick Williams
Raffle & Fundraising for Students.....	Susanne Marczak, Colleen Wisinski, Chrissy Sousa, Lisa Achter
Student Affairs Committee.....	Katie Rock, Shannon Lemieux, Katie Smith, Elizabeth Meisman, Rachel-Ann Arias, Tyler Gianni
Student Judging Coordinators	Elizabeth Meisman, Eveline Larrucea
Survey Coordinator.....	Dan Airola, Thea Wang, Lisa Fields
Trivia & Student Quiz Bowl.....	Rhys Evans
Virtual Welcome Reception	Lisa Fields, Eveline Larrucea
Volunteer Coordination.....	Kristen Burgess, Carolyn Buesch, Bennie Johnson

Workshops & Pre-Event Symposia

Burrowing Owl Symposium - Sponsored by San Diego Zoo Wildlife Alliance	Susanne Marczak, Colleen Wisinski, Janine Payne
Construction Awareness Training for Wildlife Biologists.....	Natalie Greer
Career Builder Saturday	Shannon Lemieux, Elizabeth Meisman, Katie Rock

The Western Section of The Wildlife Society 2023 Annual Meeting

TWS WESTERN SECTION BOARD MEMBERS



Executive Committee

President
Katie Smith

WRA Environmental Consultants

Past-President
Dan Airola

Conservation Research and Planning

President-Elect

Randi McCormick

McCormick Biological, Inc.

Section Representative
Jim Seding

University of Nevada, Reno

Treasurer

John McNerney

City of Davis

Secretary

Melinda Dorin Bradbury

CA Department of Water Resources

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Cal Poly, San Luis Obispo
Tyler Gianni

Cal Poly, Humboldt
Jessica Hernandez

San Francisco State
Vacant

UC Davis
Chloe Schaecher

UC Santa Barbara
Jenna Stuck

University of Nevada, Reno
Elizabeth Mast

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Chapter Representatives

California Central Coast
David Kisner
 Kisner Restoration & Ecological Consulting

California North Coast
Elizabeth Meisman
 Dudek

Hawaii
Laura Berthold
 Maui Forest Bird Recovery Project

Nevada
Kevin Shoemaker
 University of Nevada, Reno

Sacramento-Shasta
Erica Christensen

San Francisco Bay Area
Kathleen Grady

San Joaquin Valley
Randi McCormick
 McCormick Biological, Inc.

Southern California
Colleen Wisinski
 San Diego Zoo Wildlife Alliance

Committee Chairs

Awards and Grants
Richard Burg
 CA Dept Fish & Wildlife

Communication Content Editor
Susanne Marczak
 San Diego Zoo Wildlife Alliance

Historian
Don Yasuda
 USDA Forest Service

Diversity Committee
Bayan Ahmed
 CA Dept of Water Resources

Membership
Sam Sosa
 USFWS

Professional Development
Janine Payne

Western Wildlife Journal
Howard Clark
 Colibri Ecological Consulting

Student Affairs
Elizabeth Meisman
 Dudek
Katie Rock
 HDR
Shannon Lemieux

Conservation Affairs
Kelly Holland
 GEI Consultants

Contractors

Accountant
Mike Chapel

Project Manager & Meeting Planner
Candace Renger

Webmaster
Eric Renger

Workshop Coordinator
Ivan Parr

Attend the CAC meeting on Thursday, February 9, from 5 – 6pm, immediately following the Member's Forum!

Your Active Voice Matters



Join our monthly calls on the last Wednesday of the month at 12 noon. Mark your calendars: 2/22 & 3/29).

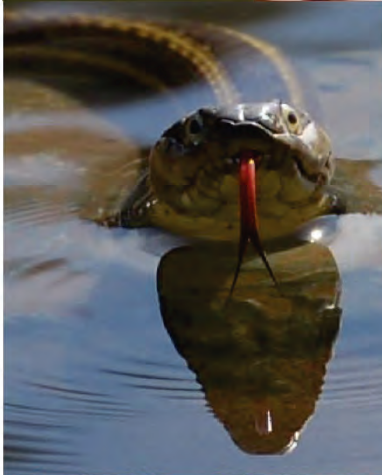
The Western Section's Conservation Affairs Committee (CAC) tracks & responds to policies that may affect the conservation of wildlife & their habitats within the Section's geographical scope.

GET INVOLVED AND CONTRIBUTE YOUR ACTIVE VOICE TO CONSERVATION!

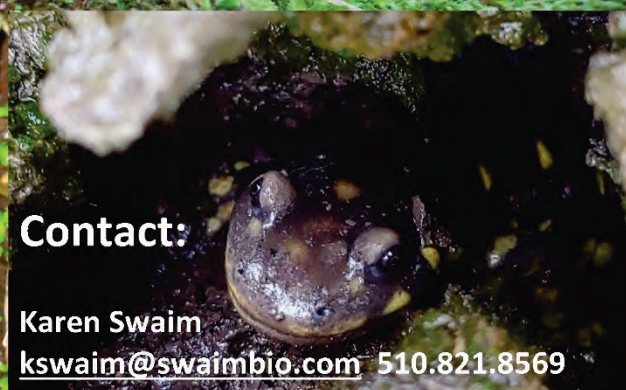
Contact Kelly Holland, CAC Chair, for more information at conservation@twc-west.org.



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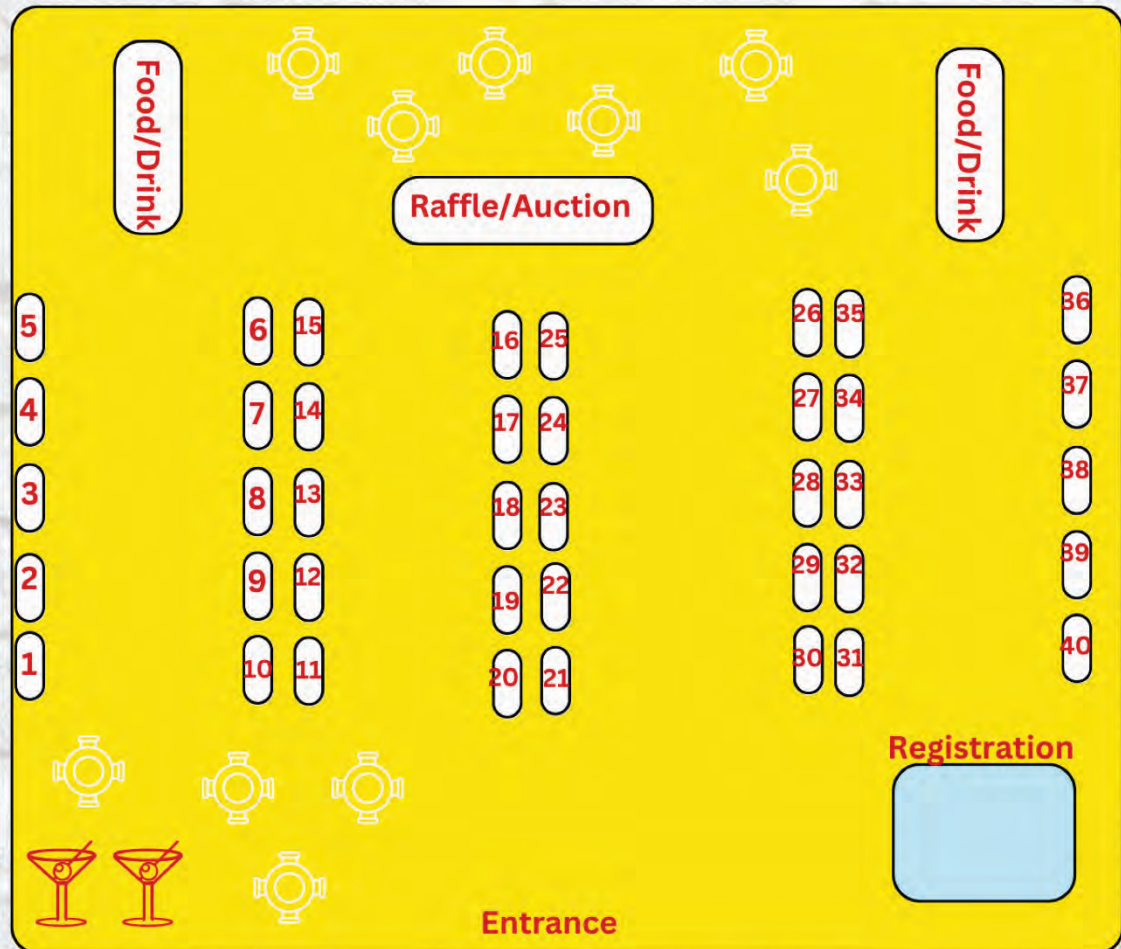
Contact:

Karen Swaim
kswaim@swaimbio.com 510.821.8569

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EXHIBIT HALL



5	WRA, Inc.
4	Ironwood Consulting, Inc.
3	Holohil Systems Ltd.
2	CA Assoc of Professional Scientists (CAPS)
1	National Wildlife Federation

6	Endemic Environmental Services, Inc.	15	McCormick Biological, Inc
7	Environmental Science Associates	14	Hawaii & North Coast Chapters
8	Wildlife Drones	13	Conservation Unlimited Alumni Assoc
9	Animex International Inc.	12	Conservation Affairs & Western Wildlife Committees
10	Sapphos Environmental, Inc.	11	GEI Consultants Inc.

16	Swaim Biological, Inc.	25	SD Zoo Wildlife Alliance
17	Wildlife Acoustics	24	Central Coast & So Cal Chapters
18	Bay Area & Sac-Shasta Chapters	23	CA Department of Fish and Wildlife
19	AECOM	22	Riverside Corona Resource Conservation District
20	Nomad Ecology	21	Aspen Environmental Group

26	Dudek	35	Ascent Environmental, Inc.
27	Casey Gerard Artist	34	Save the Snakes
28		33	Lotek Canada
29	The Rewilding Institute	32	Student Affairs & Diversity Committees
30	ECORP Consulting, Inc.	31	

36	US Bureau of Land Management, Central Coast Field Office
37	Westervelt Ecological Services
38	BioMaAs, Inc. & Workshops
39	Sequoia Ecological Consulting, Inc.
40	ERTC Environmental Services

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We are a collaborative, solving unprecedented challenges
with planning, design, science, and kindness.

ASCENT



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California Association of Professional Scientists

<https://capsscientists.org/>; ncompton@capsscientists.org

CAPS is an organization of scientific civil servants who protect public health, the environment, agriculture, and California's natural resources.



Colibri Ecological Consulting LLC

www.colibri-ecology.com - info@colibri-ecology.com

Colibri Ecological Consulting, LLC is a small business enterprise based in Fresno, California. It maintains a staff of about 25 technical team members. Colibri's mission is to help its clients carry out successful projects by providing sound scientific information and analysis to address biological resource challenges. Colibri's services include biological resource assessments, biological technical studies and reporting, special-status species surveys, nesting bird and roosting bat surveys, pre-construction surveys, wetlands/waters determinations and delineations, habitat restoration planning and monitoring, spill response and damage assessment, regulatory permitting, GIS mapping, environmental awareness training, and environmental compliance monitoring. With its headquarters in Fresno, Colibri has particular expertise in the flora and fauna of California's San Joaquin Valley and its surrounding foothills and mountains.



Endemic Environmental Services Inc.

PO Box 3747 - Fullerton CA 92834 info@endemicenvironmental.net

Endemic Environmental Services Inc. provides a strong team of biologists to conduct wildlife research, conservation, and consulting throughout California.



ERTEC Environmental Systems

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ERTEC manufactures revolutionary erosion, sediment and wildlife control systems with twice the performance, half the total cost and ZERO Waste. Compared to traditional solutions such as silt fence and wattles, ERTEC's sediment control technology significantly reduces unlawful sedimentation into global waterways.



Ironwood Consulting, Inc.

www.ironwoodbio.com; jobs@ironwoodbio.com; info@ironwoodbio.com

Ironwood Consulting is a Woman-Owned Small Business headquartered in Southern California, with staff in Colorado, Arizona, and Nevada. We specialize in biological resource management, impact assessment, regulatory permitting, and compliance monitoring. Our mission is to efficiently deliver scientifically defensible work products to meet environmental permitting and compliance requirements.



National Wildlife Federation

www.nwf.org; prattb@nwf.org; Beth Pratt Regional Executive Director

The National Wildlife Federation is America's largest conservation organization with over six million supporters nationwide, uniting all Americans to ensure wildlife thrive in a rapidly changing world. In California, the Federation leads the #SaveLACougars campaign, working with partners to build the Wallis Annenberg Wildlife Crossing outside Los Angeles.



Nomad Ecology

822 Main Street - Martinez, CA 94553 www.nomadecology.com

Nomad Ecology, LLC is a full-service ecological consulting firm that prides itself on an innovative and science-based approach. Nomad was founded in 2004 based on a desire to pursue work that is focused on natural resource management with the concept that a quality consulting firm starts with a solid foundation of local field experience that drives expertise. Nomad's services support natural resource managers of parks, open space, conservation lands, and fuel treatment efforts for fire safety and ecological health; as well as public utilities and public works sectors.



Swaim Biological Inc

4435 1st Street, PMB #312 - Livermore, CA 94551 kswaim@swaimbio.com; www.swaimbio.com

Swaim Biological Inc. (SBI) is a San Francisco Bay Area-based, disadvantaged small business, founded in 1996. SBI conducts ecological research and provides environmental consulting services to a wide variety of clients, including public agencies, utilities, park districts, environmental non-profits, environmental and engineering firms, construction firms and private clients throughout California and beyond.



US Bureau of Land Management

Central Coast Field Office - 940 2nd Ave, Marina California 93933 mwestpha@blm.gov

The Central Coast Field Office of the Bureau of Land Management administers almost 400,000 acres of public lands in the Central California coastal area, including Cotoni-Coast Dairies National Monument and Ft. Ord National Monument.





Endemic
Environmental Services

OUR MISSION:

To provide expert guidance and innovative solutions that empower our clients and sustain biodiversity amidst an evolving society.



HABITAT RESTORATION



WILDLIFE SERVICES

Endemic Environmental Services, Inc. is a renowned multidisciplinary environmental consulting firm that serves public and private sector clients. Our team members apply their scientific expertise, experience, initiative, and innovation to natural resource management.

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Ascent Environmental, Inc.

455 Capitol Mall, Suite 300 - Sacramento, CA 95814 Adriana.Alba@ascentenvironmental.com

Ascent provides expert environmental, planning, biological resources, and climate change-related services. Ascent's biologists possess the extensive technical and regulatory experience necessary for accurate analysis, successful regulatory compliance, and informed biological resource management decisions. We are recognized for our ability to translate technical information into clear and concise documents, find innovative and pragmatic solutions to complex regulatory issues, and work as part of multidisciplinary teams. We emphasize providing reliable, unbiased information that allows clients to achieve their objectives and that regulators can use to support their decisions.



Aspen Environmental Group

5020 Chesebro Road, Suite 200 - Agoura Hills, CA 91301 business@aspeneg.com - www.aspeneg.com

Aspen Environmental Group is an expert interdisciplinary environmental services firm focused on the provision of services to clients responsible for building, maintaining, or regulating infrastructure and public works projects. Aspen provides biological resources services including surveys for special-status species, fisheries and aquatic resources, nesting bird management, natural communities mapping, and regulatory permitting consultation under the federal and state Endangered Species Acts. Aspen's in-house staff are experts in restoration of riparian and wetland habitat, conducting stream assessments, developing and implementation of species-specific management plans, and finding creative solutions for mitigation.



Dudek

605 Third Street - Encinitas, CA 92024 hello@dudek.com - www.dudek.com

Founded in 1980, Dudek is a 100% employee-owned environmental, planning, and engineering firm. Our 700+ employees nationwide help clients plan, design, and build projects that improve communities' built and natural infrastructure. We are creative, pragmatic problem-solvers working at the intersection of science, engineering, regulations, and multiple stakeholders' interest to help clients achieve project goals. With offices in six states, projects in all 50, and staff nationwide, we're poised to quickly mobilize for any project need.



ECORP Consulting, Inc.

dmitche@ecorpconsulting.com - www.ecorpconsulting.com

ECORP Consulting, Inc. has assisted public and private landowners with environmental regulation compliance since 1987.

We offer full-service capability, from initial baseline environmental studies through environmental planning review, permit negotiation, liaison to obtain legal agreements, mitigation design, construction monitoring and compliance reporting. We bring together an experienced multidisciplinary team of environmental and regulatory specialists, terrestrial and aquatic biologists, wetland specialists, habitat restoration specialists, water resources experts, permitting specialists, archaeologists, air quality and noise analysts, unmanned aerial systems (drone) specialists, and geographic information systems specialists.



GEI Consultants, Inc.

2868 Prospect Park Drive, Suite 400 - Rancho Cordova, CA 95670

kholland@geiconsultants.com <https://ecoandenviro.geiconsultants.com/>

Today's environmental regulations are complex and ever-changing. GEI Consultants, Inc. continually keeps abreast of changing environmental policies, regulations, and technologies to give our clients the most up-to-date service we can provide to help them meet their goals and objectives. GEI specializes in broad and extensive multi-disciplinary ecological and environmental services which are often integrated with our other practice areas. This integration better enables innovative solutions that are more effective, efficient, and reduce overall project costs.



McCormick Biological, Inc

PO Box 80983 - Bakersfield, CA 93380 contact@mcbioinc.com - <https://www.mccormickbiologicalinc.com/>

McCormick Biological, Inc. (MBI) is a biological consulting firm based out of Bakersfield, CA. MBI specializes in a variety of professional biological services including biological resource inventory, evaluation of impacts to special-status species, endangered species surveys, general plant and wildlife surveys, impact analysis, mitigation plans and preparation of biological technical studies for EIRs and biological resource sections for CEQA documents. MBI specializes in biological resources of the central valley and surrounding areas and has extensive experience with oil and gas exploration and production, urban development and alternative energy.



Mountainview Biological Consulting 909-273-7276, hello@mtn-bio.com, www.mtn-bio.com

Mountainview Biological Consulting, LLC (MVBC) provides professional biological and ecological consulting support services as a certified Woman-Owned Business. We provide experienced botanists, ornithologists, desert tortoise biologists, wetland delineators, GIS technicians, bat biologists, and general compliance monitors. We conduct biological monitoring to ensure compliance with applicable regulations and project-specific protocols, and we conduct special status species surveys (protocol), general avian surveys including nesting bird surveys, habitat assessments, wetland delineations, biological impact and assessment surveys and reports, and botanical surveys. MVBC is proud not only to support our clients by providing a skilled team of specialists and tech-driven efficiencies, but proud to support our team of biologists with a robust benefits package and professional development program. Contact MVBC at hello@mtn-bio.com to inquire about our current opportunities.



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wra-ca.com/culture-careers

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Sapphos Environmental, Inc

<https://sapphosenvironmental.com/>

Sapphos Environmental, Inc. is a full-service environmental consulting firm based in Pasadena with offices in the Central Valley. We are a certified minority-owned, and women-owned small business (MBE/WBE/SBE) founded 30 years ago. We're comprised of highly skilled technical experts and professionals with departments specializing in environmental compliance, biological and cultural resources, GIS, and sustainability. We provide responsive and high-quality planning, resource management, and environmental compliance services to assist public and private sector clients throughout the development and implementation of various projects – including infrastructure, transportation, recreation, health, educational, and mixed-use projects.



WRA, Inc.

opportunities@wra-ca.com - www.wra-ca.com

WRA is an environmental consultancy that's making a net positive impact. As a tenacious team of planners, engineers, and scientists, we believe in leaving the lands we love better than we found them. We partner with public agencies, non-profits, and private entities on multidiscipline projects in a variety of markets. From planning and design, through entitlement and post-construction, we have your back. Our clients lean on us to navigate them through tricky projects and achieve benefits for both the natural environment and local communities. From our roots in wetland research and supporting our first clients in the Bay Area following the inception of the federal Clean Water Act, we have more than 40 years of experience in California's diverse ecoregions.



Westervelt Ecological Services

Contact: Amanda Dwyer adwyer@westervelt.com www.wesmitigation.com

Established in 2006, WES collaborates with private landowners, businesses, land trust organizations, non-profits, and government entities to develop environmental restoration projects that benefit local communities and native flora and fauna. Our professional staff contributed to over 30,000 acres of habitat nationwide, implementing restoration projects protecting and restoring vital natural resources. In addition, WES provides environmental mitigation options to help our clients meet local, state and federal compliance requirements for public and private project impacts to streams, wetlands, and wildlife.



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AECOM

300 Lakeside Drive, Suite 400 - Oakland, CA 94612 <https://aecom.com/>

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$13.1 billion in fiscal year 2022. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.



ESA | Environmental Science Associates

Brian Pittman, CWB Wildlife Program bpittman@esassoc.com www.esassoc.com

ESA is a 100% employee-owned environmental consulting firm. We plan, design, permit, mitigate, and restore—for projects across our communities, infrastructure systems, open spaces, and wetlands. We are 50 years strong in 21 offices across California, the Pacific Northwest, and the Southeastern United States.



H. T. Harvey & Associates, Ecological Consultants

ecoinfo@harveyecology.com - <https://www.harveyecology.com/work-for-us/>

H. T. Harvey & Associates is a specialized ecological consulting firm based in the San Francisco Bay Area, with four offices in California and one in Hawaii. Since 1970, our highly trained ecologists and professionals have delivered exceptional ecological consulting services to public agencies, private entities, and nonprofit organizations. We apply our expertise in wildlife ecology, fish and aquatic ecology, plant ecology, restoration ecology, and landscape architecture in pursuit of our mission to create ecologically sound solutions to our client's complex natural resource challenges. Check our website for open positions and to sign up for Harvey Ecology Field Notes.



Holohil Systems

John Edwards info@holohil.com <https://www.holohil.com/>

The Most Trusted Wildlife Tracking Solutions. Holohil Systems has spent over 35 years redefining the standard for wildlife tracking and telemetry. We know well that the wildlife research community requires consistently reliable equipment that produces precise data. We are proud that we can assist the crucial work of wildlife scientists and it is a responsibility we take seriously.



Midpeninsula Regional Open Space District

5050 El Camino Real, Los Altos, CA

astarr@openspace.org www.openspace.org

Midpen is an independent special district that helps plants, animals and people thrive by preserving a connected green belt of more than 70,000 acres throughout the greater Santa Cruz mountains.



Congratulations
to The Western
Section of The
Wildlife Society on **70 YEARS**



Supporting Wildlife and Wildlife Professionals

Thank you to the Western Section of The Wildlife Society for 70 years of providing support, education, and community for the wildlife professionals of California, Nevada, and Hawaii. Colibri Ecological Consulting is grateful for organizations that share our goals of protecting and conserving biological resources.

At Colibri, we have provided biological support services to clients throughout California and beyond for more than a decade. If you are seeking professional ecological consulting services, please contact us—our experienced team is ready to assist you with your next project.



colibri-ecology.com
559.721.6810
info@colibri-ecology.com

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The Rewilding Institute

POB 13768, Albuquerque, NM 87192 john@rewilding.org - rdharding2@gmail.com www.Rewilding.org

The Rewilding Institute (TRI) serves the community of conservationists dedicated to restoring a wild Earth. To serve wild Nature, TRI strives to strengthen the grassroots conservation community. We do so in several ways: education and outreach, support for frontline groups, and conservation science. TRI emphasizes the restoration of highly interactive species (keystone and foundation species) throughout their suitable range in ecologically effective populations. TRI's founder, the late Dave Foreman, wrote the book "Rewilding North America: A Vision for Conservation in the 21st Century". Be sure to also check out the Global Rewilding Alliance (rewildingglobal.org) and Nature Needs Half (natureneedshalf.org).



Riverside-Corona Resource Conservation District

4500 Glenwood Dr - Riverside, CA 92501 www.rcrcd.org - <https://www.rcrcd.org/landuse-learning-center>

The Riverside-Corona Resource Conservation District (RCRCD) is a local government agency that works to conserve the natural resources of areas within western Riverside and San Bernardino Counties. RCRCD provides resource management assistance about stewardship of natural resources to private and public land users and education programs. The RCRCD works to sustain natural resources by: Conserving habitat through land acquisition, habitat restoration, and management; Restoring native species and conducting aquatic species propagation; Educating broad audiences about stewardship of resources in natural, urban, and agricultural ecosystems.



Sequoia Ecological Consulting

<https://sequoiaeco.com/>

Sequoia is a California-based woman-owned small business providing focused biological services to government agencies and private entities. Our team of 50 wildlife biologists, botanists, fisheries specialists, and arborists help public agencies plan and implement projects that meet their mission goals while minimizing environmental impacts and focusing on conservation. When founder Debie Montana sought to establish the company 11 years ago, she chose the name Sequoia because she felt connected to these quiet majestic trees. As part of her graduate studies at San Jose State University, Debie studied the population genetics of coastal redwood forests as they regrew after wildfires. Symbolically, she likened the biodiversity and resiliency of these forests to what she hoped her company would be.



Wildlife Drones

ryan@wildlifedrones.net - www.wildlifedrones.net

At Wildlife Drones, we are reinventing animal tracking research from the ground up. We're all about empowering those in the field to collect more data more often and keep track of their animals like never before. Our drone-based system allows researchers to see the real-time locations of all their tagged animals simultaneously. It all works from the air, which saves time, improves tag detection, and provides unparalleled access to even the most challenging landscapes. Wildlife professionals have put it to good use tracking everything from invasive insects to endangered birds to large mammals, in all manner of habitats all over the world. We work closely with each and every one of our partners to empower their unique work. If you're curious how Wildlife Drones can help with your research, we'd love to meet you and offer solutions!



EXHIBITORS

BioMaAS, Inc

Ivan Parr

ivanparr@biomaas.com <http://biomaas.com/>

Biological Monitoring and Assessment Specialists. Specializing in a wide range of environmental services.



California Department of Fish and Wildlife

916-531-1594 Esther.Burkett@wildlife.ca.gov <https://wildlife.ca.gov/>

MISSION STATEMENT: To manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public. Department staff will be available to answer questions and provide information on temporary and permanent employment opportunities, along with information on publishing in the California Fish and Wildlife Journal. Recent and historical issues of the California Fish and Wildlife Journal will be available for free.



Conservation Unlimited Alumni Association

FACEBOOK: www.facebook.com/ConservationUnlimited/ INSTAGRAM: www.instagram.com/CUAA_humboldt

<https://www.cuaahumboldt.org/>

Established in 1968, Conservation Unlimited Alumni Association (CUAA) is the longest running alumni organization at Humboldt State University (HSU) and is comprised of graduates from the College of Natural Resources and Sciences. Our mission is to foster the lifelong commitment to conserving natural resources and we currently function as a 509(a)(2) charitable organization dedicated to supporting the academic and professional development of HSU natural resources students through awards, scholarships, loans and networking opportunities.



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www.lotek.com

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River Thrush Studio

casey@riverthrushstudio.com www.caseyg.com

My art is inspired by nature. I create pieces that celebrate the diversity of our Earth's fauna and flora, while sharing how we can enjoy and learn from our natural world. My pieces are original paintings of birds on leaves that are finished as matted wall art and jewelry. Then additionally I create printed illustrations of birds, flowers and insects, that are posters, cards, prints, stickers, magnets, and buttons.



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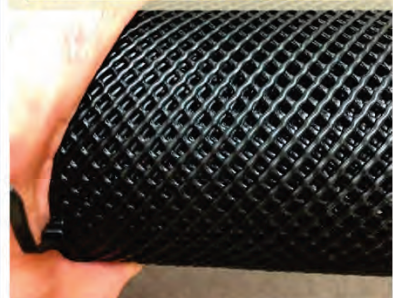
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San Diego Zoo Wildlife Alliance

<https://sandiegozowildlifealliance.org/>

San Diego Zoo Wildlife Alliance is an international, nonprofit conservation organization with two front doors: the San Diego Zoo and the San Diego Zoo Safari Park. We integrate wildlife health and care, science, and education to develop sustainable conservation solutions. We are committed to saving species worldwide by uniting our expertise in animal care and conservation science with our dedication to inspiring passion for nature. The San Diego Zoo Wildlife Alliance is a proud sponsor of this year's Burrowing Owl Symposium.



Save The Snakes

www.savethesnakes.org

To increase worldwide snake conservation efforts, Save The Snakes was founded in 2017 to protect threatened snake populations and reduce direct conflicts between humans and snakes by implementing mitigation strategies that will lead to peaceful coexistence. Save The Snakes works with organizations, companies, individuals, and donors who help us promote, implement, and sustain snake conservation projects around the world. Together we work globally to promote our mission and foster support for snake conservation. To date, Save The Snakes has fueled the growth of 29 snake conservation projects in 18 countries. In 2021, Save The Snakes founded the Snake Conservation Center (SCC) in Sacramento, California. The SCC acts as a foundation from which to conduct our work and better serve our worldwide network of Conservation Partners.



Wildlife Acoustics, Inc

www.wildlifeacoustics.com

Turning sound into discovery and insights into impact - Wildlife Acoustics is the leading provider of bioacoustics monitoring technology for biologists, ecologists, researchers, and government agencies worldwide. We develop innovative, reliable tools that help wildlife professionals make discoveries that expand our understanding of the planet. Our Song Meter acoustic and ultrasonic passive recorders help scientists conduct species inventory, presence/absence surveys, and habitat health monitoring in harsh climates over long periods. And our handheld Echo Meter Touch turns mobile devices into interactive bat detectors, providing a compact, sophisticated research tool and enhancing citizen science programs. We are proud to support the scientific community via our quarterly grant program, supplying researchers with the equipment they need to further the study of bats, birds, frogs, and other vocal wildlife. Additionally, we offer free virtual product training weekly to ensure that our customers get the most from their equipment.



TWS John Konecny Memorial Fund Book Sale

Scholarship info coming soon: www.tws-west.org

Please stop by the memoriam table for a well-known biologist in the So Cal Chapter who passed away last summer, John Konecny. His family has donated his entire library of wildlife books and we are going to offer them for free along with a donation basket which will fund a memorial scholarship fund the Western Section is administering.

TWS Bay Area Chapter

twsbayarea@gmail.com <https://www.sfbaywildlife.org/>

The San Francisco Bay Area Chapter serves eleven counties in Northern California: Sonoma, Marin, Lake, Napa, Solano, Contra Costa, Alameda, Santa Clara, Santa Cruz, San Mateo, and San Francisco. Come meet your current board members at our booth! Are you looking to get more involved with the chapter? We are looking to fill a few board vacancies. We will also have discounted merchandise available for sale.



TWS Central Coast Chapter

Facebook: <https://www.facebook.com/cacentralcoastchaptertws> <http://wildlife.org/cali-centralcoast>

The California Central Coast Chapter of The Wildlife Society (CCCC) spans the counties of Santa Barbara, San Luis Obispo and Monterey, and was established in July 1971. The CCCC works to encourage high standards of professional achievement, recognize and commend outstanding work, and address the needs and challenges facing student and professional wildlife biologists.



TWS-Hawai'i Chapter

twshawaii@gmail.com <https://hawaii.tws-west.org/> PO Box 22192 Honolulu, Hawai'i 96823-2192

The Wildlife Society Hawai'i Chapter dedicates itself to the conservation and preservation of flora and fauna endemic to the Hawaiian Islands. The Hawai'i Chapter is part of the Western Section of The Wildlife Society. Our objectives are to: Promote the sound stewardship of wildlife and their habitats in Hawai'i and the Pacific; Promote the conservation of indigenous and endemic Hawaiian and other Pacific wildlife and their habitats; and promote the development of knowledge, skills, and abilities necessary for success of wildlife professionals and the conservation community in the State of Hawai'i and Pacific.



TWS North Coast Chapter

www.cncctws.org cncctws@gmail.com Instagram: @cncctws

CNCC provides opportunities year-round for members and non-members to network with other professionals, mentor students, and exchange information about the latest wildlife science. Throughout the year we provide workshops and learning opportunities for members to continue their education and build new skills. We also stay current with conservation affairs and provide technical expertise when pertinent.



TWS Sacramento-Shasta Chapter

<https://wildlife.org/sac-shasta> Facebook: <https://www.facebook.com/sacshasta> Instagram: @sacshastatws

The Sacramento-Shasta Chapter of TWS, founded in 1966, is a volunteer-run organization that serves 23 counties throughout the Sacramento Valley and interior mountainous region of northern California. Our region contains a staggering range of ecosystems including valley floor wetlands, oak woodlands, a diversity of montane forest types, high altitude alpine systems and great basin sagebrush scrub, to name just a few. Collectively, these areas support many hundreds of wildlife species from Swainson's Hawk to Pacific fisher to pronghorn antelope. We support the Wildlife Society's goals and work to inspire, empower, and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation on a regional level.



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TWS Southern California Chapter

FACEBOOK: www.facebook.com/socalwildlife INSTAGRAM: www.instagram.com/twssocal

LINKEDIN: www.linkedin.com/groups/4293110/ WEBSITE: <https://wildlife.org/socal/>

The Southern California Chapter of TWS, founded in 1966, serves San Bernardino, Ventura, Riverside, Orange, San Diego, Los Angeles, and Imperial counties in Southern California. Our region contains diverse endemic ecosystems including coastal sage scrub, Mojavean and Sonoran desert scrub, and vernal pool grasslands among others and species including the coastal California Gnatcatcher, listed kangaroo rats, and Quino checkerspot butterfly. Our mission is to develop and promote sound stewardship of wildlife resources and environments upon which wildlife and humans depend; provide training and development opportunities for current wildlife professionals, recruit and train the next generation of wildlife professionals; encourage increased ethnic, gender, cultural, career stage, and economic background diversity; increase awareness and appreciation of wildlife values; and seek the highest standards in all activities of the wildlife profession.



TWS-WS Conservation Affairs Committee

Chair, Kelly Holland

conservation@tws-west.org

The Western Section's Conservation Affairs Committee tracks and responds to policies that may affect the conservation of wildlife and their habitats within the geographical scope of our Section. Stop by our table and find out how to get involved!



TWS Diversity Committee

INSTAGRAM: <https://www.instagram.com/twswestdiversity/>

Science, Technology & Engineering
Change Spaces, Not People



TWS Student Affairs Committee

EMAIL: students@tws-west.org WEBSITE: <https://sites.google.com/tws-west.org/career-builder-workshops/home>

INSTAGRAM: [@westernTWS](https://www.instagram.com/@westernTWS) FACEBOOK: <https://www.facebook.com/twsweststudents>

The Student Affairs Committee (SAC), formed in 2005, supports wildlife students and early career professionals by engaging students and faculty in Section activities, and emphasizes career-long benefits and opportunities of active membership in The Wildlife Society. The SAC activities and outreach efforts extend to colleges and universities within the Western Section, regardless of student chapter affiliation or accreditation status, to encourage and foster student and recent graduate involvement in the natural resources field.



TWS Western Wildlife

Editor: David Germano

www.westernwildlife@tws-west.org <https://wwwjournal.org>

Western Wildlife - the journal of the Western Section of The Wildlife Society - continues to be a research outlet for Western Section members. Journal staff strive to help seasoned researchers and graduate students alike share their discoveries in the field by assisting with peer-review, editorial contribution, and final publication. Western Wildlife accepts papers ranging in a variety of topics and taxa with the idea of providing a platform to unite researchers from a variety of backgrounds with the goal of publishing a quality product that will benefit the continual professional development of our membership.



TWS Workshops

Ivan Parr

www.tws-west.org workshops@tws-west.org

Western Section Workshops aims to provide current and intellectual information combined with hands-on experience to student and professional biologists, researchers, and agency staff with an interest in professional development.



WESTERN SECTION WORKSHOPS

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Upcoming Workshops

- Vernal Pool Branchiopods, **January 16-22**, Davis and Sacramento
- Interest-Based Negotiation, **May**, Sacramento
- Bumble Bee Field Course, **July**, Truckee
- California Condor, **October**, Central California

In Progress

- Arboreal Voles, **September**, Corvallis/Virtual
- Drones for Wildlifers, **Fall**, Hawaii

Sign up for our mailing list
www.tws-west.org

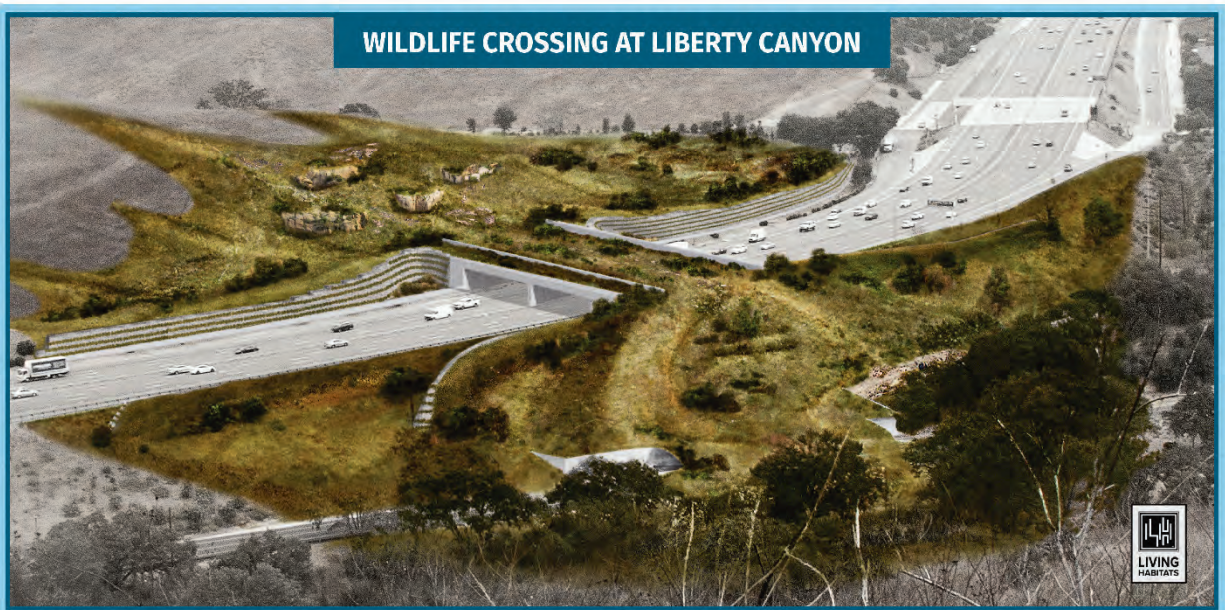
Send Questions to:
workshops@tws-west.org



Welcome TWS-West!

“Wildlife crossings restore ecosystems that had been fractured and disrupted. They reconnect lands and species that are aching to be whole. I believe these crossings go beyond mere conservation, toward a kind of environmental rejuvenation that is long overdue.”

WALLIS ANNENBERG - CHAIRMAN, PRESIDENT, & CEO OF ANNENBERG FOUNDATION



PROJECT PARTNERS: Caltrans, National Park Service, Santa Monica Mountains Conservancy/MRCA, Resource Conservation District of the Santa Monica Mountains, National Wildlife Federation, Living Habitats LLC.

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The Western Section of The Wildlife Society 2023 Annual Meeting

SCHEDULE OF EVENTS

Displaying agenda in event time zone (PST)

Check here for last minute schedule changes: <https://tinyurl.com/2023TWSWS>

Time Start	Time End	Session Title	Room/Location	Tracks
MONDAY				
11:30 AM	05:30 PM	Western Section Executive Board Meeting	MR 8-9-10	Associated Meeting; Live; Virtual
12:00 PM	05:00 PM	Burrowing Owl Symposium (Day 1 of 2) *Extra Fee	Raincross B/C/E/F	Extra Fee; Live; Workshop & Career
06:30 PM	08:30 PM	Burrowing Owl Training (Optional) *Extra Fee	Raincross B/C/E/F	Extra Fee; Live; Workshop & Career
07:30 PM	09:00 PM	Registration Packet Production	Exhibit Hall A	Live; Social & Fun
TUESDAY				
07:00 AM	08:00 AM	Yoga Stretch & Move Class	Lower Concourse	Live; Social & Fun
08:00 AM	12:30 PM	Western Section Executive Board Meeting	MR 8-9-10	Associated Meeting; Live; Virtual
08:00 AM	05:00 PM	Burrowing Owl Symposium (Day 2 of 2) *Extra Fee	Raincross B/C/E/F	Extra Fee; Live; Workshop & Career
08:00 AM	09:00 PM	Family Room	MR 1	Live; Social & Fun
08:30 AM	12:30 PM	Fire as a Management Tool Field Trip *Extra Fee	Convention Center Flagpoles	Extra Fee; Live; Social & Fun; Workshop & Career
09:30 AM	05:30 PM	MGS Technical Advisory Group Meeting	MR 3	Associated Meeting; Live; Virtual
11:00 AM	01:00 PM	Wallis Annenberg Wildlife Crossing Tour and Lunch *Extra Fee	Hwy 101 Agoura Hills	Extra Fee; Live; Social & Fun; Workshop & Career
01:00 PM	03:00 PM	Exhibit Hall Setup	Exhibit Hall A	Live
01:00 PM	05:00 PM	Wildlife Biologist Construction Awareness Training (WildC.A.T.) *Extra Fee	MR 5	Extra Fee; Live; Workshop & Career
01:00 PM	05:00 PM	From the Mountains to the Sea: The History and Management of the Santa Ana River Field Trip *Extra Fee	Convention Center Flagpoles	Extra Fee; Live; Social & Fun; Workshop & Career
03:00 PM	09:00 PM	Exhibit Hall Open - Hot Drinks Served	Exhibit Hall A	Live; Social & Fun
03:00 PM	07:00 PM	Registration & Help Desk	Exhibit Hall A	Live
04:00 PM	06:00 PM	Student Quiz Bowl, Preliminary Rounds	Exhibit Hall C	Live; Social & Fun
04:00 PM	05:30 PM	Chapter Leaders Meeting	MR 4	Associated Meeting; Live
05:00 PM	08:45 PM	No-Host Drink Station – Mingle and Munch	Exhibit Hall A	Live; Social & Fun

The Western Section of The Wildlife Society 2023 Annual Meeting

Time Start	Time End	Session Title	Room/Location	Tracks
06:00 PM		Official Meeting Opening		
06:00 PM	08:00 PM	Welcome Reception with Fiesta Buffet – Wildlife Photo Slideshow – Cornhole Tournament – Games	Exhibit Hall A	Live; Social & Fun
07:00 PM	08:00 PM	Virtual Welcome Reception	Online Zoom	Social & Fun; Virtual
08:00 PM	09:00 PM	Student Quiz Bowl Finals	Exhibit Hall C	Live; Social & Fun
WEDNESDAY				
07:30 AM	07:00 PM	Registration & Help Desk	Exhibit Hall A	Live
07:30 AM	07:00 PM	Exhibit Hall Open - Hot Drinks Served	Exhibit Hall A	Live; Social & Fun
07:30 AM	08:30 AM	Yoga Stretch & Move Class with Kelly Holland	Lower Concourse	Live; Social & Fun
08:00 AM	09:45 AM	Breakfast Roundtable *Extra Fee	Lower Ballroom	Extra Fee; Live; Social & Fun; Workshop & Career
08:00 AM	05:00 PM	Speaker Practice Room	MR 3	Live
08:00 AM	10:00 AM	CA and SSN Fisher Working Group Meeting	Raincross A/D	Associated Meeting; Live; Virtual
08:00 AM	10:00 AM	Poster Setup Hours	Upper Concourse	Live
08:00 AM	09:00 PM	Family Room	MR 1	Live; Social & Fun
09:00 AM	10:00 AM	Wildlife Society Certification – Application Guidance	MR 4	Live; Workshop & Career
10:00 AM	11:30 AM	Keynote Address & Dialogue – Discussion on Free-Roaming Horses and Burros	Exhibit Hall B	General & Scientific Sessions; Live; Live-Recorded; Virtual
11:30 AM	07:00 PM	Poster Viewing and Judging	Upper Concourse	General & Scientific Sessions; Live
11:30 AM	01:00 PM	Lunch Break		
11:45 AM	12:45 PM	Turning Sound into Discovery: Using Wildlife Audio Recorders as a Valuable Research Tool. Wildlife Acoustics Presentation and FREE Lunch	MR 3	Live; Workshop & Career
11:45 AM	12:45 PM	HSU Alumni Meeting (MR 4)	MR 4	Associated Meeting; Live; Social & Fun
01:00 PM	03:05 PM	Contributed Technical Papers: JEDI Session (Justice, Equity, Diversity and Inclusion); Session Chair: Rich Burg, CA Dept of Fish and Wildlife	Exhibit Hall C	General & Scientific Sessions; Live; Live-Recorded; Virtual
01:00 PM	03:05 PM	Contributed Technical Papers: War with the Newts? Interactions between Pacific coast newts and endangered amphibians; Session Chair: Michael Westphal, US Bureau of Land Management	Exhibit Hall D	General & Scientific Sessions; Live; Live-Recorded; Virtual
01:00 PM	03:05 PM	Contributed Technical Papers: Birds I: Owls; Session Chair: Elizabeth Meisman, Dudek/HSU	Raincross B/C/E/F	General & Scientific Sessions; Live; Live-Recorded; Virtual

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Time Start	Time End	Session Title	Room/Location	Tracks
01:00 PM	03:05 PM	Contributed Technical Papers: Mammals I: Ungulates; Session Chair: Ben Sacks , UC Davis	Raincross A/D	General & Scientific Sessions; Live; Live-Recorded; Virtual
03:05 PM	03:20 PM	Afternoon Break - Snacks Served	Exhibit Hall A	Live; Social & Fun
03:20 PM	05:25 PM	Contributed Technical Papers: Mammals II: Bats; Session Chair: Katrina Smith , CA Dept of Fish and Wildlife	Exhibit Hall C	General & Scientific Sessions; Live; Live-Recorded; Virtual
03:20 PM	05:25 PM	Contributed Technical Papers: Reptiles and Amphibians I; Session Chair: Christine Van Horn Job , McCormick Biological, Inc	Exhibit Hall D	General & Scientific Sessions; Live; Live-Recorded; Virtual
03:20 PM	05:25 PM	Contributed Technical Papers: Birds II; Session Chair: David Riensche , East Bay Regional Park District	Raincross B/C/E/F	General & Scientific Sessions; Live; Live-Recorded; Virtual
03:20 PM	05:25 PM	Contributed Technical Papers: Professionalism and Ethics; Session Chair: Chris Huntley , Aspen Environmental Group	Raincross A/D	General & Scientific Sessions; Live; Live-Recorded; Virtual
04:15 PM	11:45 PM	No-Host Drink Station – Mingle and Munch	Upper Concourse	Live; Social & Fun
04:30 PM	05:30 PM	Forest Service Welcome Reception (Anyone welcome to attend)	Lower Outdoor Patio	Live; Social & Fun
05:30 PM	06:30 PM	Speed Networking - Students and ECP's	Lower Ballroom	Live; Social & Fun; Workshop & Career
07:00 PM	08:30 PM	Members Banquet *Extra Fee In Person (Raffle Buckets Close at 8pm)	Exhibit Hall B	Extra Fee; Live; Social & Fun
08:30 PM	10:00 PM	Wildlife Trivia & Raffle	Exhibit Hall C	Live; Social & Fun
10:00 PM	11:59 PM	Karaoke!	Exhibit Hall C	Live; Social & Fun
10:00 PM	11:55 PM	Group Games! Led by Gamemaster Matthew Bettelheim	Exhibit Hall D	Live; Social & Fun
10:00 PM	11:55 PM	Hangout Room	MR 1	Live; Social & Fun
THURSDAY				
07:00 AM	07:50 AM	Breakfast Roundtable *Extra Fee	Lower Ballroom	Extra Fee; Live; Social & Fun; Workshop & Career
07:00 AM	07:00 PM	Registration & Help Desk	Exhibit Hall A	Live
07:00 AM	08:00 PM	Poster Viewing and Judging	Upper Concourse	Live
07:30 AM	09:00 PM	Exhibit Hall Open - Hot Drinks Served	Exhibit Hall A	Live; Social & Fun
08:00 AM	05:00 PM	Speaker Practice Room	MR 3	Live
08:00 AM	10:05 AM	Contributed Technical Papers: Mammals III: Canids; Session Chair: Andrew Dennhardt , US Fish and Wildlife Service	Exhibit Hall C	General & Scientific Sessions; Live; Live-Recorded; Virtual

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Time Start	Time End	Session Title	Room/Location	Tracks
08:00 AM	10:05 AM	Contributed Technical Papers: Reptiles and Amphibians II; Session Chair: Marisa Ishimatsu, WRA, Inc.	Exhibit Hall D	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	10:05 AM	Contributed Technical Papers: Addressing Conservation Challenges through Technology; Session Chair: Rob Schell, WRA, Inc	Raincross B/C/E/F	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	10:05 AM	Contributed Technical Papers: Invertebrate Conservation; Session Chair: Dylan Winkler, CA Dept of Fish and Wildlife	Raincross A/D	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	09:00 PM	Family Room	MR 1	Live; Social & Fun
10:05 AM	10:25 AM	Morning Break - Snacks Served	Exhibit Hall A	Live; Social & Fun
10:25 AM	12:30 PM	Contributed Technical Papers: Mammals III: Canids (continued); Session Chair: Christine Van Horn Job, McCormick Biological, Inc	Exhibit Hall C	General & Scientific Sessions; Live; Live-Recorded; Virtual
10:25 AM	12:30 PM	Contributed Technical Papers: Reptiles and Amphibians III; Chair: Jeff Alvarez, The Wildlife Project	Exhibit Hall D	General & Scientific Sessions; Live; Live-Recorded; Virtual
10:25 AM	12:30 PM	Contributed Technical Papers: Mammals IV: Mustelids; Session Chair: Katie Moriarty, NCASI/Oregon State University	Raincross B/C/E/F	General & Scientific Sessions; Live; Live-Recorded; Virtual
10:25 AM	12:30 PM	Contributed Technical Papers: Birds III; Session Chair: Rick Williams, CWB, Retired	Raincross A/D	General & Scientific Sessions; Live; Live-Recorded; Virtual
12:30 PM	01:00 PM	CDFW Science Institute Team Meeting (By Invite Only)	MR 4	Associated Meeting; Live
12:00 PM	4:00 PM	USFS Recruiter -- Come learn about career opportunities with the USFS		
12:30 PM	01:30 PM	Lunch Break		
01:00 PM		Online Auction Closes	Online TBD	Social & Fun; Virtual
01:30 PM	03:00 PM	Plenary Session - Challenge Accepted! Confront Obstacles, Create Opportunities	Exhibit Hall B	General & Scientific Sessions; Live; Live-Recorded; Virtual
03:00 PM	05:00 PM	Members Town Hall & Awards Ceremony - Snacks served	Exhibit Hall B	Associated Meeting; Live; Live-Recorded; Social & Fun; Virtual
03:30 PM	05:30 PM	Sierra Nevada Red Fox Working Group Meeting	Raincross A/D	Associated Meeting; Live; Virtual
05:00 PM	06:00 PM	Student Affairs Committee Meeting	Exhibit Hall C	Associated Meeting; Live
05:00 PM	06:00 PM	Diversity Committee Meeting	Exhibit Hall D	Associated Meeting; Live
05:00 PM	06:00 PM	Professional Development Committee Meeting	Raincross B/C/E/F	Associated Meeting; Live

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Time Start	Time End	Session Title	Room/Location	Tracks
05:00 PM	06:00 PM	Conservation Affairs Committee Meeting	MR 8-9-10	Associated Meeting; Live
05:00 PM	06:00 PM	Western Wildlife Committee Meeting	MR 2	Associated Meeting; Live
05:00 PM	09:15 PM	No-Host Drink Station	Exhibit Hall A	Live; Social & Fun
06:00 PM	08:00 PM	Poster Session; Session Chairs: Allison Fuller - Ascent Environmental, Carlos Alvarado - Ascent Environmental	Upper Concourse	General & Scientific Sessions; Live; Poster Session; Social & Fun; Virtual
08:00 PM	09:30 PM	Chapter Meeting Sac-Shasta	Raincross A/D	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting So Cal Chapter	MR 8-9-10	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting North Coast	Lower Ballroom	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting San Joaquin	MR 1	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting Bay Area	MR 2	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting Nevada	MR 3	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting Central Coast	MR 4	Associated Meeting; Live
08:00 PM	09:30 PM	Chapter Meeting Hawaii	MR 5	Associated Meeting; Live
FRIDAY				
07:30 AM	01:00 PM	Registration & Help Desk	Exhibit Hall A	Live
07:30 AM	01:00 PM	Exhibit Hall Open - Hot Drinks Served	Exhibit Hall A	Live; Social & Fun
08:00 AM	10:45 AM	Contributed Technical Papers: Mammals V: Rodents / Lagomorphs; Session Chair: Melissa Riley , CA Dept of Fish and Wildlife	Exhibit Hall C	General & Scientific Sessions; Live; Live-Recorded
08:00 AM	10:45 AM	Contributed Technical Papers: Challenges and Opportunities I: Species Recovery; Session Chair: Brian Cypher , CSU-Stanislaus, ESRP	Exhibit Hall D	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	10:45 AM	Contributed Technical Papers: Use of AI for Processing Camera Trap Images; Session Chair: Scott Osborn - CA Department Fish and Wildlife, David Delaney - US ACOE	Raincross B/C/E/F	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	10:45 AM	Contributed Technical Papers: Challenges and Opportunities II: Human Dimensions; Session Chair: Linda Leeman , Ascent Environmental	Raincross A/D	General & Scientific Sessions; Live; Live-Recorded; Virtual
08:00 AM	01:00 PM	Family Room	MR 1	Live; Social & Fun
10:45 AM	11:00 AM	Morning Break - Snacks Served	Exhibit Hall A	Live; Social & Fun
11:00 AM	12:30 PM	Capstone Presentation with Joel Sartore , A TED speaker, National Geographic Explorer, and professional wildlife photographer.	Exhibit Hall B	General & Scientific Sessions; Live; Live-Recorded; Virtual
12:30 PM	01:30 PM	Book Signing and Meet & Greet with Joel Sartore	Exhibit Hall B	Live; Social & Fun

KEYNOTE ADDRESS AND DIALOGUE

Celeste Carlisle, Return to Freedom Wild Horse Conservation

Dr. Nicki Frey, Associate Extension Professor - Utah State University



Photo by BLM (<https://www.blm.gov/whb>)

- Wednesday, February 9th: 10:00am to 11:30am
- Chair: **Dr. Jim Sedinger**, University of Nevada Reno, Reno
- The Keynote Session will be livestreamed and recorded for our virtual attendees



Celeste Carlisle served a three-year term on BLM's Wild Horse and Burro Advisory Board and has been very active in research on the use of fertility control as a tool to address horse and burro numbers. She is one of the Principals in the development of The Path Forward, which advocates use of fertility control as an important tool, along with better use of long-term holding facilities and adoptions, to better manage horse numbers.



Dr. Nicki Frey, in addition to her work with wildlife, has conducted important survey work gauging the public's knowledge and opinions about the horse and burro issue.

The Keynote Address and Dialogue will be organized by our TWS Section Rep to Council, and Emeritus Faculty at the University of Nevada, Reno, Dr. Jim Sedinger, and will discuss the free-roaming horse and burro issue. We have a very knowledgeable group with a variety of opinions who will provide an informative program for the Western Section focusing on the ecology/conservation/management aspects of the issue as well as the sociological aspects limiting effective solutions and potential solutions to the problem.



The Journal of the Western Section of The Wildlife Society

- Please consider submitting your manuscripts to the Western Section's journal, Western Wildlife, formerly known as Transactions of the Western Section of the Wildlife Society.
- Western Wildlife is an open-access, peer-reviewed journal that publishes original research, notes, reviews, perspectives, and correspondence on the ecology, natural history, management, and conservation biology of animals.
- Submit materials to David Germano at dgermano@csu.edu.
- Papers will be peer-reviewed and then published on-line once accepted by the editor.



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— Hannah Dunn
Biologist



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PLENARY SESSION THEME

- Thursday, February 9th: 1:30pm to 3:00pm
- Chair: **Randi McCormick**, TWS-WS President-Elect/McCormick Biological, Inc.
- The Plenary Session will be livestreamed and recorded for our virtual attendees

Challenge Accepted! Confront Obstacles, Create Opportunities: Our speakers for this year's Plenary Session embody the spirit of the Conference theme. They have each accepted challenges in their professional endeavors while working with imperiled species. I invite you to come and learn about their journeys, working against the odds. They will address not only the unique difficulties faced by different taxa but will also provide us with a window into the human side – working with teams, making hard decisions, facing disappointments, and celebrating victories. My hope is that their insights will help inform the rest of us and maybe even create that spark that helps us overcome our own obstacles!

PLENARY SPEAKER BIOGRAPHICAL SKETCHES



Dr. Lisa Shipley, Professor, Washington State University – Lisa is a professor in the School of the Environment at Washington State University where she has taught for 26 years. She has supervised 26 MS students, 8 Ph.D. students, five postdocs, and mentored 96 undergraduate research, internships, or special projects. Her research focuses on nutritional and behavioral ecology and habitat selection of wild herbivores using a combination of field and captive animal experiments. She teaches undergraduate courses in wildlife ecology and management and a graduate course in foraging ecology of herbivores. Dr. Shipley conducted field and captive research with pygmy rabbits for 20 years from 1998 through 2018, which resulted in 32 journal articles. She led the captive breeding program for pygmy rabbits at Washington State University from 2002 – 2011, and she has been a member of the Columbia Basin Pygmy Rabbit recovery team and science team.



Dr. Lisa "Cali" Crampton, The Kaua'i Forest Bird Recovery Project – Lisa obtained her Ph.D. in Ecology, Evolution and Conservation Biology from the University of Nevada at Reno in December 2004. Cali has extensive experience coordinating the design, conduct, and delivery of large research and monitoring projects with teams of diverse stakeholders. For her doctoral research, she examined the landscape ecology and conservation of Phainopeplas, threatened passerines in southern Nevada, for the regional Habitat

Conservation Plan (HCP). As part of her post-doctoral work, she led a team of other scientists, NGOs, and government managers in designing the HCP's adaptive management plan for conserving and restoring threatened desert woodlands on which Phainopeplas and other sensitive species in Nevada depend. In addition to her familiarity with avian field research techniques, Cali is experienced in the use of multivariate statistical and spatial analysis tools to evaluate the effects of environmental variables on animal distribution, abundance, and fecundity. For example, while working at the USGS Kilauea Field Station on Hawai'i Island, she analyzed field data on the population and behavioral ecology of the endangered Laysan Teal to improve monitoring and management strategies implemented by the U.S. Fish and Wildlife Service. Since coming to KFBP as the Project Leader in April 2010, she has overseen adaptive management programs, such as experimental rodent control to benefit nesting forest birds, and direct triage projects for endangered species, such as collection of eggs and adult birds to found conservation breeding programs. She is also heavily involved in research on invasive mosquito abundance and distribution to inform mosquito control that will ultimately reduce deadly avian diseases that are devastating Hawaiian Honeycreeper populations.

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Dr. Deana Clifford, California Department of Fish and Wildlife, and UC Davis

Deana received her Bachelor's in Wildlife Conservation Biology (1995), Doctor of Veterinary Medicine (1999), Master of Preventive Veterinary Medicine (2001), and PhD (2006) in Epidemiology from the University of California, Davis. Her dissertation work focused on infectious disease and reproduction threats to endangered island

foxes on California's Channel Islands. Deana has worked on a variety of wildlife and ecosystem health projects, both nationally and internationally. Prior to joining CDFW in 2009 she worked for the UC Davis Karen C. Drayer Wildlife Health Center serving as the first coordinator for the Health for Animals and Livelihood Improvement Project, a multi-institutional One Health project studying the impacts of bovine tuberculosis and water scarcity on wildlife, livestock and people in Tanzania. She is currently a senior wildlife veterinarian at the Department's Wildlife Investigations Lab focused on Nongame, Threatened and Endangered Species, and an Assistant Clinical Professor at UC Davis. Her efforts at CDFW focus on characterizing the distribution of emerging diseases in nongame species (Snake Fungal Disease, Rabbit Hemorrhagic Disease, White-nose Syndrome), carnivore health, and utilizing wildlife rehabilitation centers for disease surveillance. She is the Department's lead for a collaborative multi-partner effort to recover the Mojave Desert's critically endangered Amargosa vole, and a member of IUCN Canid Specialist Working group and California conservation working groups for fishers, Sierra Nevada red foxes, island foxes and riparian brush rabbits. Her interests are wildlife disease risk assessment and surveillance, mesocarnivore diseases, endangered species recovery, and health at the interface of wildlife, domestic animals, and people.

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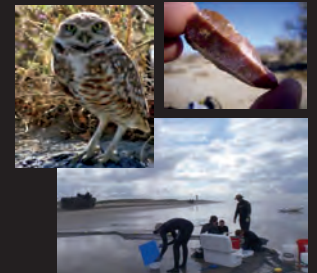
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Biological Resources

- Threatened, Endangered, and Special-Status Species Surveys and Permitting
- Wetland Assessment, Delineations, and Permitting
- California Rapid Assessment Method (CRAM) for Wetland, Riparian, and Stream Habitats
- Terrestrial and Aquatic Species Surveys and Habitat Assessments
- Mitigation and Compensation Planning
- Mitigation Banking Support
- Habitat Restoration, Planning, and Design
- Open Space Management
- Botanical Services
- Bat Surveys and Bat Exclusion Management
- Preparation and Implementation of Natural Community Conservation Plans (NCCPs) and Habitat Conservation Plans (HCPs)
- Support of Informal and Formal Consultation under Section 7 of the Endangered Species Act

Aquatic and Marine Science Services

- Fisheries and Aquatic Habitat Studies
- Estuarine Habitat/Eelgrass Surveys
- Aquatic, Riparian, Estuarine Habitat Restoration
- Acoustic Fish Tagging/Tracking
- eDNA Studies
- Fish Passage and Entrainment Evaluations
- Fish Relocation and Salvage
- Cultural Resources
- Paleontology
- Water Resources
- NEPA/CEQA Documentation
- Unmanned Aerial Systems
- Construction Monitoring
- Geographic Information Systems
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CAPSTONE SESSION



Joel Sartore and frill necked lizard (Photo by Douglas Gimesy)

Joel Sartore, National Geographic Photographer and Explorer

- Friday, February 10th: 11:00am to 12:30pm
- Chair: Dr. Katie Smith, TWS-WS President, WRA Environmental Consultants
- The Capstone Session will be livestreamed and recorded for our virtual attendees

This exciting event will bring us all back together for one final networking opportunity at the closing of the Annual Meeting. In the field of environmental conservation, we all have a different role to play, and a different approach to addressing the myriad of challenges we face. For example, some excel in handling and tracking wildlife, some in crunching the numbers, and some in telling the story. Together we can do the work needed to study our imperiled species and to convince decision makers and the public to support conservation efforts. The responsibility for recovering the world's imperiled wildlife does not lie solely on the shoulders of wildlife biologists. In the age of social media, a simple post can have an even bigger impact in society than a groundbreaking journal article locked behind a paywall. Recognizing and working with effective partners outside of our field will be imperative in creating a sustainable future for humans and wildlife.

The Western Section recognizes that communicating science and convincing the public to care about the species we care about is not always easy. This year we have invited a spectacular speaker who has Accepted this Challenge (quite successfully!), Joel Sartore. A TED speaker, National Geographic Explorer, and professional wildlife photographer.

The Western Section of The Wildlife Society 2023 Annual Meeting

Photo Ark is a multiyear effort to document every species living in zoos and wildlife sanctuaries, inspire action through education, and help protect wildlife by supporting on-the-ground conservation efforts. National Geographic photographer Joel Sartore started the Photo Ark in his hometown of Lincoln, Nebraska, in 2006. Since then, he has visited more than 50 countries and photographed more than 13,000 species in his quest to create this photo archive of global biodiversity.

No matter its size, each animal is treated with the same amount of affection and respect. The results are portraits that are not just stunningly beautiful, but also intimate and moving.

Joel Sartore, Photographer and Explorer, National Geographic

Joel has spent decades documenting some of the rarest wildlife in the world and bringing the images and stories of these species to the public. And, with over 1.6 million followers on Instagram, Joel's wildlife photos receive tens of thousands of engagements per day, introducing potentially obscure species to people who might never learn of their existence. In his Capstone presentation on Friday, February 10th, Joel will tell our Western Section about how he and other conservationists have Accepted the Challenge of wildlife conservation and science communication to be one of the most effective and well known wildlife photographers today.

THE WILDLIFE SOCIETY



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Join us Thursday, February 9th at 8:00pm for our Chapter meeting in-person at the conference!



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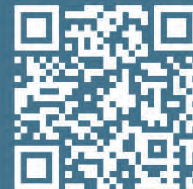


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SCIENTIFIC CONCURRENT SESSION SCHEDULE

Abstracts are available to view, download or print via the Western Section Annual Meeting website:

https://user.tws-west.org/abstracts/abstract_display_grid.php?e=AC2023

Concurrent Session Abstracts

Room	Exhibit Hall C	Exhibit Hall D	Raincross B/C/E/F	Raincross A/D
Session Title	JEDI Session (Justice, Equity, Diversity and Inclusion)	War with the Newts? Interactions between Pacific coast newts and endangered amphibians.	Birds I: Owls	Mammals I: Ungulates
Wednesday 1:00 PM	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements
Wednesday 1:05 PM	Department of Water Resources' Racial Equity Action Plan Andrea Riley Zoom Presentation	Creating a pond array to test the effects of predation by larval newts on the eggs of California red-legged frogs Michael Westphal	Breeding ecology and diet of Pueo (Hawaiian Short-eared Owl; <i>Asio flammeus sandwichensis</i>) Olivia Wang Student Paper	Before-after-control-impact (BACI) study of wildfire effects on deer diet using DNA metabarcoding Carly White
Wednesday 1:25 PM	Archaeology is for Everyone: A Grassroots Effort to Normalize a Change in Archaeology's Complexion Dana Cota Zoom Presentation	Does severe drought exacerbate predation by newts (<i>Taricha spp.</i>) on amphibian egg masses? Jeff Wilcox	Forest owls respond to historical and novel fire disturbance in the Sierra Nevada Kate McGinn Student Paper	Check Whova Online Schedule
Wednesday 1:45 PM	Caltrans: Pioneering a people-centered approach to Diversity Equity and Inclusions for our goals and values through shared leadership. Amar Cid	Efforts to Reduce Rough-skinned Newt Abundance at a Santa Cruz Long-toed Salamander Breeding Pond Chad Steiner Zoom Presentation	Potential collapse of spotted owl populations in Southern California Josh Barry Student Paper	Increasing population trend of mule deer in Northeastern California associated with winter severity Brett Furnas
Wednesday 2:05 PM	Scientific Storytelling: How Research Reaches the Masses Tonya Marshall	Predation on California Red-legged Frog eggs by overwintering Rough-skinned Newt larvae Karen Kiemnec-Tyburczy	Habitat Selection by Juvenile Barred Owls during Dispersal in Coastal California Whitney Watson Student Paper	Robustness of fecal-DNA spatial capture-recapture (SCR) abundance estimation to aggregation in elk Ben Sacks
Wednesday 2:25 PM	Title: Embedding equity: Shifting from ideas to action Nicole Cropper	Sierra Newt (<i>Taricha sierrae</i>) Breeding in an Intermittent Central California Stream: Results of a Continuing Long-Term Study Julie Vance	A Passive Acoustic Framework for Monitoring Rapidly Expanding Barred Owl Populations Whitney Watson Student Paper	The large-scale use of a time to event model to estimate the abundance of elk in northern California Sara Moriarty-Graves Student Paper
Wednesday 2:45 PM	Panel Discussion	Panel Discussion	Developing a prioritization tool to support acoustics-based spotted owl surveys H. Anu Kramer	
Session Break				

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Room	Exhibit Hall C	Exhibit Hall D	Raincross B/C/E/F	Raincross A/D
Session Title	Mammals II: Bats	Reptiles and Amphibians I	Birds II	Professionalism and Ethics
Wednesday 3:20 PM	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements
Wednesday 3:25 PM	Effects of dewatering gallinaceous guzzlers on wildlife. Neal Darby	Effect of radio-transmitter collar color on predation probability in endangered Blunt-nosed Leopard Lizards (<i>Gambelia sila</i>) in the Panoche Plateau Keyanna Pinto <i>Student Paper</i>	Movement of an avian hybrid zone may be mediated by secondary effects of climate change Daniel Pierce	Ethics in the Field. "Know Thyself". Chris Huntley
Wednesday 3:45 PM	Dynamic changes in species richness and colony sizes of bats roosting in abandoned mines suggest use as refugia from challenging climatic conditions Rick Sherwin	Spatial distribution of temperatures linked to an ectotherm's thermoregulation and movement Ian Axsom <i>Student Paper</i>	Preliminary Results of a Population Assessment for Least Bell's Vireos, <i>Vireo bellii pusillus</i> , in the Santa Clara River Valley in Southern California Andrew Dennhardt	Advocacy, Ethics, Client Needs, and the Resources. Maintaining Your Ethics While Supporting Responsible Growth TBD Panel
Wednesday 4:05 PM	Influence of Introduced trout on foraging bats in the Sierra Nevada Mountains Dave Johnston Zoom Presentation	Limits of burrows to buffer against climate extremes -- insight for headstarting as a tool to bolster Mojave desert tortoise populations Melissa Merrick	Using culturally significant birds to guide the timing of prescribed fires in the Klamath Siskiyou Bioregion Linda Long	The Ramifications of Compromised Ethics, Misplaced Advocacy, Poor Field Craft and How to Avoid Them. TBD Panel
Wednesday 4:25 PM	Bats in swallow nests: implications for bat conservation Jill Carpenter	Spatial Ecology of the Little Panoche Valley Blunt-nosed Leopard Lizard (<i>Gambelia sila</i>) population Stephanie Doria	Assessing species distributions in terms of forest restoration and fire risk in the Sierra Nevada Kristin Brunk	The value of sharing field observations, yes, even those from construction monitoring Jeff Alvarez
Wednesday 4:45 PM	Determining Nightly Movements of Foraging Bats Patricia Brown	Dietary analysis of Blunt-nosed Leopard Lizard and Sympatric Lizards using DNA Metabarcoding Mark Statham	Using Technology to Reduce Lead Poisoning in California Condors Kara Fadden	Panel Discussion
Wednesday 5:05 PM		Management of Blunt-nosed leopard lizard (<i>Gambelia sila</i>) Assurance Colony at the Fresno Chaffee Zoo, Year Two! Mark Halvorsen	Using an Innovative Data Sharing Application to Coordinate the Efforts of California Condor Recovery Partners Danae Mouton	
Session Break				
Session Title	Mammals III: Canids	Reptiles and Amphibians II	Addressing Conservation Challenges through Technology	Invertebrate Conservation
Thursday 8:00 AM	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements
Thursday 8:05 AM	Dancing With Wolves: a choreographic challenge Kent Laudon	Comparing camera traps and visual encounter surveys for monitoring small animals Nicole Cornelius	Application of thermography and time-lapse thermal imaging in studies of juvenile desert tortoise ecology Thomas Radzio	Effects of <i>Iris Pseudacorus</i> on Invertebrate Communities in a Southern California Estuary Anita Arenas <i>Student Paper</i>

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Room	Exhibit Hall C	Exhibit Hall D	Raincross B/C/E/F	Raincross A/D
Thursday 8:25 AM	"California Dreamin' " California Wolf Management Update Kent Laudon	The Northern Leopard Frog: California's Forgotten Anuran? Eric Stitt	Emerging conservation technologies reveal a mechanistic link between a Sierra Nevada megafire and biodiversity loss Connor Wood	Attempted Population Reduction of the American Bullfrog, <i>Rana catesbeiana</i> Shaw 1802 (<i>Amphibia</i> , <i>Anura</i> , <i>Ranidae</i>), An Invasive Amphibian at the Resighini Rancheria. Bradford Norman
Thursday 8:45 AM	Genome-Wide Sequencing Uncovers Recent Admixture Pulses and Selective Introgression between Highly Divergent Gray Fox Lineages Sophie Preckler-Quisquate	Status of Construction and Mitigation Including California Tiger Salamander Breeding Success in the One Lake Project in Solano County, California Bethany Dengler-Germain	Monitoring California Spotted Owls in the Sierra Nevada with Bioacoustics Kevin Kelly	Doing Adaptive Management on the Fly: Managing for the understudied and federally endangered Delhi Sands Flower-Loving Fly. Jonathan Reinig
Thursday 9:05 AM	Density-Dependent Habitat Selection and Home Range Sizes in a Recovering Population of Island Foxes (<i>Urocyon littoralis</i>) on Santa Rosa Island, California Katie Elder <i>Student Paper</i>	Aestivation, Edema, and Overwintering Larvae: Lessons Learned from California Red-legged Frogs at San Francisco International Airport's West of Bayshore Property Brian Pittman	Advancing bird survey efforts through novel recorder technology and automated species identification Matthew Toenies	Habitat management and restoration at western monarch overwintering sites in California State Parks Heather White
Thursday 9:25 AM	Potential habitat and carrying capacity of endangered San Joaquin kit foxes in an urban environment: implications for conservation and recovery Brian Cypher	Rearing threatened amphibians for release in an uncertain world Rochelle Stiles	An integrated spatial capture-recapture approach reveals the distribution and density of a cryptic carnivore in a protected area Marie Martin	
Thursday 9:45 AM		Giant gartersnake historical habitat design at Lookout Slough, a multi-benefit restoration project Patricia Valcarcel	Building a Climate Change-Biodiversity Monitoring Sentinel Site Network in California through a Multi-Jurisdictional Partnership Whitney Albright	
Session Break				
Session Title	Mammals III: Canids (continued)	Reptiles and Amphibians III	Mammals IV: Mustelids	Birds III
Thursday 10:25 AM	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements
Thursday 10:30 AM	Fostering orphaned pups of endangered San Joaquin kit foxes (<i>Vulpes macrotis mutica</i>): four case studies Nicole Deatherage	Changing Sex Ratios due to Global Warming for the Northwest Atlantic Loggerhead Sea Turtle Population Marissa Rykowski <i>Student Paper</i>	Use of whole-genome sequencing to investigate the evolutionary history of island spotted skunks Julia Owen-Ramos <i>Student Paper</i>	Collaboration in a complex social-ecological system: Management of migratory waterfowl along the Pacific Flyway Aviv Karasov-Olson <i>Student Paper</i>
Thursday 10:50 AM	Impact of a Sarcoptic Mange Epidemic on a Population of Endangered San Joaquin Kit Foxes Erica Kelly	Incipient species of <i>Elgaria multicarinata</i> complex living at different latitudes display nearly indistinguishable thermal behavior and tolerance An Lyu <i>Student Paper</i>	American Badger and Burrowing Owl Habitat Suitability Assessment Karine Tokatlán Zoom Presentation	Dabbling In Danger: Ducks of the Tribe Anatini Display Increased Vigilance in Response to Perceived Bald Eagle Predation Pressure in the Sacramento Valley Kevin Dodd <i>Student Paper</i>


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Room	Exhibit Hall C	Exhibit Hall D	Raincross B/C/E/F	Raincross A/D
Thursday 11:10 AM	Ecological and Demographic Response of San Joaquin Kit Foxes to the Panoche Valley Solar Farm Tory Westall	A Review of the Historical Market: Effect of the West Coast Commercial Fishery on Western Pond Turtles (<i>Actinemys marmorata</i> and <i>A. pallida</i>) Matthew Bettelheim	Sex and age mediate the effects of rapid environmental change for fishers in the southern Sierra Nevada Corbin Kuntze <i>Student Paper</i>	Common Raven Resource Selection around Nesting Habitat of the Threatened Western Snowy Plover Janelle Chojnacki <i>Student Paper</i>
Thursday 11:30 AM	San Joaquin kit fox demography and ecology on the Carrizo Plain: it's the kangaroo rats, stupid! Brian Cypher	Upland habitat occupancy by northwestern and southwestern pond turtles in central California Jeff Alvarez	Use of footprint identification technique (FIT) to develop a novel tool for species and sex discrimination of fisher tracks Jody Tucker	Prey Availability at a variety of California Least Tern (<i>Sternula antillarumbrowni</i>) colonies Amanda Martinez <i>Student Paper</i>
Thursday 11:50 AM		Resiliency of the Southwestern Pond Turtle (<i>Actinemys pallida</i>) after Drought in southern California Lyell Buttermore	Forest carnivores on the brink: up in smoke or climbing to the top? Katie Moriarty	Riparian area, not fragmentation, is associated with breeding bird species richness in the Great Basin, USA Frank Fogarty
Thursday 12:10 PM		Population Dynamics of a Southwestern Pond Turtle Population in Orange County Barry Nerhus	Fishers, forest refugia, and fire footprints Rebecca Green	
Session Break				
Session Title	Mammals V: Rodents / Lagomorphs	Challenges and Opportunities I: Species Recovery	Use of AI for Processing Camera Trap Images	Challenges and Opportunities II: Human Dimensions
Friday 8:00 AM	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements	Introductions and Announcements
Friday 8:05 AM	Building a better prediction: A case study in evaluating a quick field assessment technique for predicting salt marsh harvest mouse occupancy. Katie Smith	Five-year Status Review for the Santa Barbara County Distinct Population Segment of the California Tiger Salamander, <i>Ambystoma californiense</i> Andrew Dennhardt	Passive acoustic surveys and a novel machine learning tool reveal detailed spatiotemporal variation in the vocal activity of two Anurans - with implications for carnivore monitoring Connor Wood	Check Whova Online Schedule
Friday 8:25 AM	Utilizing the ArcGIS Field Maps mobile app to optimize survey data collection for a large-scale collaborative regional survey Katie Smith	Navigating a path to recovery for kiwakiu: a Hawaiian finch in peril Laura Berthold	California Fish and Wildlife's partnership with Wildlife Insights for storing, processing, and sharing camera images Lindsey Rich	Motus wildlife tracking: Protocol for Tag Detection Testing for Motus Stations Patrick Lorch
Friday 8:45 AM	Analysis of modern and museum DNA reveals declining genetic diversity in salt marsh harvest mice Cody Aylward	Assessing avian malaria at the landscape scale in Hawai'i Cara Thow	Artificial Intelligence-Supported Animal Image Processing Fraser Shilling	Evaluation of Dam Decommissioning as a Marsh Restoration Method Carla Angulo <i>Student Paper</i>
Friday 9:05 AM	Studying the Behavior and Ecology of the Riparian Brush Rabbit with Camera Traps during Extreme Flood Celia Tarcha	The future is here: Recent declines across multiple taxa in the Hawaiian Islands raise alarms regarding potential tipping points caused by multiple threats, inc Melissa Price	Open Source Computer Vision Models for Data Aggregation and Sorting William Duvall	From Hazard to Habitat: A summary of 25 years of California Department of Conservation's Abandoned Mine Reclamation Efforts Trinity Smith

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Room	Exhibit Hall C	Exhibit Hall D	Raincross B/C/E/F	Raincross A/D
Friday 9:25 AM	Translocation of the San Joaquin antelope squirrel (<i>Ammospermophilus nelsoni</i>) in the Carrizo Plain Patrick Anderson	Desert Tortoise Week 2022 Kent Kowalski	Wildlife Image AI Detection: From Lab Testing to Enterprise Adoption Martin Slosarik	California Wildlife-Vehicle Conflict: Hotspots and Resolution Fraser Shilling
Friday 9:45 AM	Rangewide Stephens' Kangaroo Rat Management and Monitoring Plan Wayne Spencer	Loss and impending recovery of Panoche Plateau Blunt-nosed Leopard Lizards (<i>Gambelia sila</i>) Rory Telemeco	Detecting and Monitoring Rodents Using Camera Traps and Machine Learning Versus Live Trapping for Occupancy Modeling Jaran Hopkins <i>Student Paper</i> Zoom Presentation	Linkages Don't Predict Wildlife Occupancy and Movement Autumn Iverson
Friday 10:05 AM	Genomic differentiation and demographic history in two formerly conspecific kangaroo rats, Dulzura kangaroo rat (<i>D. simulans</i>) and the agile kangaroo rat (<i>D. agilis</i>) Yuwei Cui <i>Student Paper</i>	Protecting endangered riparian brush rabbits from emergent rabbit hemorrhagic disease in California, USA Deana Clifford	Using Machine Learning to Manage Large Remote Camera Datasets and Detect San Joaquin Fox in Western Merced County Ryan Avery	Restoration of a Degraded Stream Through a Public-Private Partnership: A Case Study of Voluntary Habitat Conservation on Private Lands Rachel Smith
Friday 10:25 AM	Fecal genotyping to estimate small mammal population size, with a comparison to live mark-recapture estimates William Bean	20 Years of Progress in California: Advances in State and Federal Permitting and CEQA Review for Wildlife Habitat Restoration and Multi-benefit Projects Erik Schmidt	Panel Discussion	Rewilding the American West George Wuerthner



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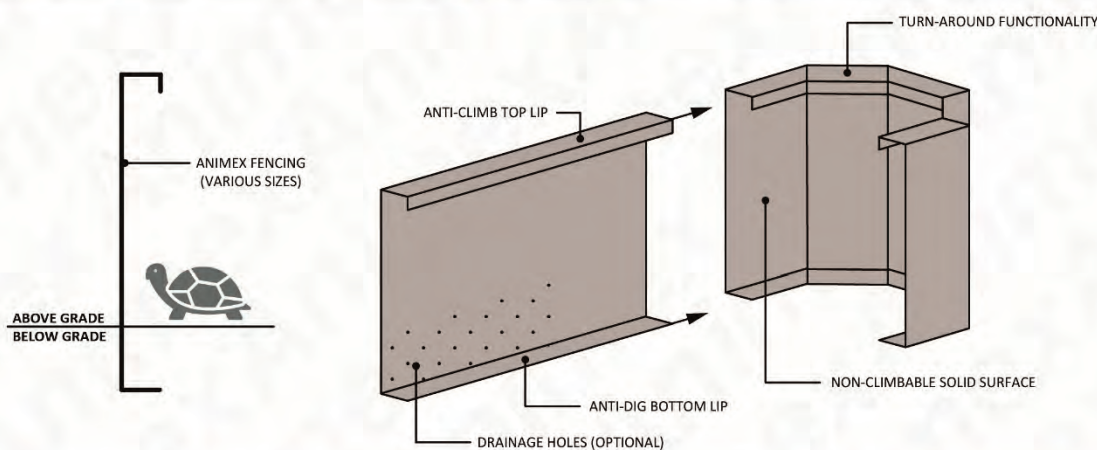
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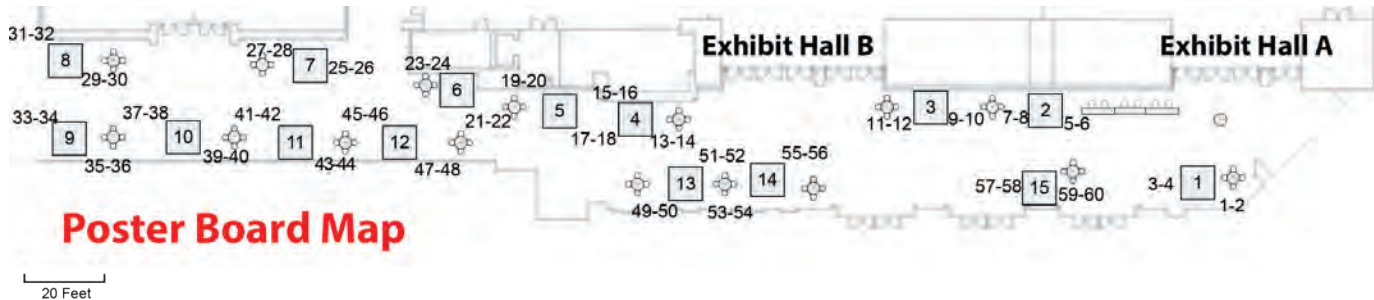
POSTER SESSION

Thursday, February 9, 2023: 6:00-8:00pm Upper Foyer

Chairs: Carlos Alvarado and Allison Fuller, Ascent Environmental

Abstracts are available to view, download or print via the Western Section Annual Meeting website: <https://riverside2023.tws-west.org/>

* Denotes a Student Paper



Poster Board Location	Abstract Title	Presenter
1	TWS Announcements	TWS
2	TWS Announcements	TWS
3	TWS Announcements	TWS
4	Building a Case Criteria for Newt Mass Die-off Events	Bria Boose
5	California Amphibian Skin and Gut Microbiomes Compared in Respect to Life History	Raquel Reyes
6	Identifying Suitable Areas for Mitigation Banking for Jurisdictional Waters and California Gnatcatcher Habitat in City of Lake Elsinore, Riverside County, CA	Max Ketabil
7	Black Oystercatcher Nests Success with California Least Terns in the San Francisco Bay	David Riensche
8	Bald Eagle (<i>Haliaeetus leucocephalus</i>) Nesting Trends, Management and Public Education in the East Bay Regional Park District	David Riensche
9	The Importance of Oyster Shells in the Nest Site Selection of the Western Snowy Plover (<i>Charadrius alexandrinus nivosus</i>)	David Riensche
10	Do Rangeland Management Practices Incentivized by California's Healthy Soils Program Confer Co-Benefits for Birds?	Ximena Gil
11	*Optimizing Artificial Raft Placement and Design for the Light-footed Ridgway's Rail	Jessica Burton
12	*Habitat Change Due to Drought Impacts Interactions between a Forest Specialist and Generalist Competitor	Elizabeth Ng
13	The Effects of Native Perennial Cover on Avian Physiological Indicators of Habitat Quality in California Coastal Prairie Rangelands	Madeleine Ybarra
14	Statewide Distribution and Trends of Bank Swallows (<i>Riparia riparia</i>) in California	Jeff McFarland
15	*Quantifying Barn Owl (<i>Tyto furcata</i>) Plumage Polymorphism in Napa Valley, CA	Jaime Carlino
16	Challenges for Hawaiian Birds	Alex Wang
17	Physiological conditions of Barn Owl (<i>Tyto furcata</i>) nestlings as indicators of habitat quality within the wine-growing region of Napa Valley	Christian Cortez
18	*The Effects of Structural Size on Swainson's Hawk Natal Dispersal Distance and Recruitment Dynamics	Elizabeth Meisman

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Poster Board Location	Abstract Title	Presenter
19	*The impacts and interactions of human disturbance on reproductive success in Western Gulls	Lilamarie Bowen
20	Fewer Crumbs Left by Campers Reduce Jay Density but Not Raven Density	William Webb
21	Quail on Fire: Landscape-scale Bioacoustics Uncovers Mountain Quail Responses to Fire and Flammability in the Sierra Nevada	Kristin Brunk
22	Wildfire and Wildlife in Conservation and Fire Planning	Fraser Shilling
23	Comparing Bumblebees and Floral Resources Following Large-scale Wildfires	Kirstie Kandarisi
24	Connectivity Challenges for Landscape-Scale Conservation through the Lens of the Natural Community Conservation Planning Act	Heather Pert
25	Not all Greenspace is Created Equal: Evaluating the Influence of Greenspace Metrics and the Luxury Effect on Wildlife Diversity and People in San Gabriel Valley	Adrianna Elihu
26	Gender Equity and Inclusion in Wildlife Sciences	Rebeca Becdach
27	The California Bumble Bee Atlas: Community Science to Support Native Pollinators	Dylan Winkler
28	*Bombus treasure hunt in California: On the lookout for wild bumble bees	Blanca Guillén
29	Biological Monitoring of the Clinton Keith Road Overcrossing and Undercrossing in Riverside County, California, 2019-2021	Cristina Juran
30	*DNA Metabarcoding Identifies Urban Dietary Patterns of Coyotes in San Francisco	Tali Caspi
31	Habitat Suitability Analysis of the Big Chico Creek Ecological Reserve for Mammalian Carnivores	Paige Munson
32	Habitat Features Affecting the Occupancy of the Los Angeles Pocket Mouse (<i>Perognathus longimembris brevinasus</i>) in Western Riverside County, California	Nicole Tomes-Orlale
33	*Space-use and Abundance of Humboldt Marten and Their Competitors in Northern California	Erika Anderson
34	*Preliminary Comparison of Genetic Diversity in the Endangered San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) Before Versus After a Mange Outbreak	Sophie Preckler-Quisquater
35	*Genetic Diversity of the Endangered San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) Relative to the Desert Kit Fox (<i>Vulpes macrotis ssp.</i>)	Katelyn Sanchez
36	*Environmental Factors Driving Abundance of Black-tailed Deer (<i>Odocoileus hemionus columbianus</i>) in the North Coast Region of California	Andrea Broad
37	Inbreeding Levels in Humboldt Martens in Coastal Oregon Based on Whole-genome Sequencing	Cate Quinn
38	Genetic Continuity of North American Red and Eastern Wolves Across Time and Space	Cate Quinn
39	Dietary Niche Overlap of the Sierra Nevada Red Fox among Coyote, Bobcat, and Marten in a High Elevation Ecosystem	Grace Rosburg-Francot
40	Comparing Time-to-event and Fecal DNA Analyses for Estimating Roosevelt elk (<i>Cervus canadensis roosevelti</i>) Abundance in Maple Creek, California	Ashley Harper
41	*How Hot is Too Hot? Behavioral Thermoregulation of San Joaquin Antelope Squirrels (<i>Ammospermophilus nelsoni</i>) in Carrizo Plains National Monument	Roxanne Nolan
42	*Response of Mountain Lions to Dogs: Is There a Differential Displacement After Capture with Hounds Versus Box Traps?	Sierra Winter
43	Mesocarnivore presence in the Lake Almanor Basin following the Dixie Fire	Bennie Johnson

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Poster Board Location	Abstract Title	Presenter
44	Where Did They Go? Delineating Habitat Characteristics Between Mountain Ranges to Explain the Absence of the San Bernardino Flying Squirrel	Daniel Banyai-Becker
45	Comparative Acoustic Sampling Interpretation: Defining Bat Vocal Activity Aided by Thermography	Jason Holmes
46	Hoary Bats and Wind Energy: Calculating Fatality Thresholds for Adaptive Management	Katrina Smith
47	*Escherichia coli and Salmonella enterica in Domestic Cattle and Wild Roosevelt Elk: Fecal Pathogens at the Wildlife-domestic Interface	Emily Buck
48	*The Impacts of Wildfire on Species Composition and Activity Patterns of Bats in Northern California	Amelia Tauber
49	*Degradation of Low-density Polyethylene and <i>Plantanus acerifolia</i> Leaves in an Ephemeral Pond and Arid Grassland	Amy Feters
50	*Watery Going To Do About Drought Impacts on Lizards?: Osmoregulation of Blunt-Nosed Leopard Lizards	Tess McIntyre
51	Detection of <i>Ophidiomyces ophidiicola</i> and Snake Fungal Disease in California	Raquel Elander
52	*Exploring the Interactions between Urban Wildlife, Ticks, and People in the San Gabriel Valley, California, USA	Caleb Sandoval
53	*Effects of Fire Retardant on Vernal Pool Community Composition	Monica Coll
54	The Intersection of Wastewater Treatment Plants and Threatened and Endangered Species in California Watersheds	Anna Cassidy
55	Management of Species in Decline	Carolyn Buesch
56	Recovering Threatened and Endangered Species in California: Recovery Plans and the California Endangered Species Act	Ange Baker
57	The Power and Promise of Fecal DNA in Wildlife Management and Conservation: Lessons from 10 years and a Thousand Tons of S_ _t	Ben Sacks
58	Safe Harbor and Voluntary Local Programs: Pathways to Conservation on Private Lands	Ekaterina Morozova
59	State Wildlife Action Plan 2025 Update Planning to Support Conservation and Management of Species of Greatest Conservation Need (SGCN) in California in 2025-35	Nicole Russell
60	*No Ka Lāhui: Using IUCN Data to Inform Recovering Imperiled Species of Hawai'i, for Hawai'i	Brissa Christophersen



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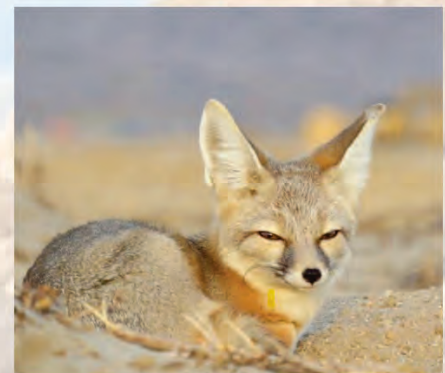


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