California-Nevada Amphibian Populations Task Force

January 9-10, 2025

California State University Channel Islands Camarillo, CA

AGENDA

Chair: Dave Bradford, Las Vegas, NV

Vice Chair: Jef Jaeger, School of Life Sciences, University of Nevada, Las Vegas

Local Organizers: Rudi von May, Biology Program, California State University Channel Islands

Chris Dellith, Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service

Chris Evelyn, Cheadle Center for Biodiversity and Ecological Restoration,

University of California, Santa Barbera

Sean Anderson, Environmental Science and Resource Management Program,

California State University Channel Islands

Parent Organization: Amphibian and Reptile Conservancy

Sponsors: Biology Program, School of Arts and Sciences, California State University Channel

Islands

Cheadle Center for Biodiversity and Ecological Restoration, University of

California, Santa Barbera

Ventura Fish and Wildlife Office, U.S. Fish and Wildlife Service

Wednesday, January 8, 2025

6:30-9:30 pm No-host Meet-and-Greet at Toppers Pizza, 425 Arneill Rd, Camarillo, CA (about 8-10 minutes'

drive from the Sonesta Select)

Thursday, January 9, 2025

7:45-8:30 am **Registration and Refreshments**

8:30-8:45 am Introduction and Announcements: Dave Bradford

8:45-8:55 am Welcome to California State University Channel Islands: Philip Hampton, Interim

Dean, School of Arts and Sciences, and Professor of Chemistry, CSUCI

Session 1

Moderator: Paul A. Maier, FamilyTreeDNA, Gene by Gene, Houston, TX 8:55-9:15 am Untangling the Complex Relationship between Mountain Yellow-Legged Frogs and Wildfire in Southern California. Adam R. Backlin*, Elizabeth A. Gallegos, Amanda R. Goldberg, Cynthia J. Hitchcock, Spencer J. Williams, and Robert N. Fisher. U.S. Geological Survey, Western Ecological Research Center, San Diego, CA, abacklin@usgs.gov. 9:15-9:35 am Landscape Genetics of the Western Pond Turtle: Complex Hybridization in a Complex Landscape. H. Bradley Shaffer^{1,2}*, Erin Toffelmier^{1,2}, Robert Cooper^{1,2}, and Peter A. Scott³. ¹Department of Ecology and Evolutionary Biology, University of California, Los Angeles, CA, brad.shaffer@ucla.edu; ²La Kretz Center for California Conservation Science, Institute of the Environment and Sustainability, University of California, Los Angeles, CA; ³Eckerd College, St. Petersburg, FL. 9:35-9:55 am Can We Save Them All? A Framework for Successful Anuran Head-Start Programs. Ben Witzke*, Mikaela Wiley*, Jamie McNellis, Matthew Weeks, Rosalie Tang, and Rochelle Stiles. Conservation Department, San Francisco Zoo and Gardens, San Francisco, CA, rochelles@sfzoo.org. 9:55-10:30 am Break and Refreshments (35 min). Yosemite Toad Reintroduction: Survival, Behavior, and Predation at 'Toad Island' 10:30-10:50 am in Yosemite National Park. Tiffany May^{1,2*}, Rob Grasso¹, Rochelle Stiles³, Ninette Daniele¹, and Vance Vrendenburg². ¹Resources Management and Science Division, Yosemite National Park, El Portal, CA, aurora6853@gmail.com; ²Department of Biology, San Francisco State University, San Francisco, CA; ³San Francisco Zoo and Gardens, San Francisco, CA. 10:50-11:10 am Mapping Invasive Bullfrogs across California: Insights on Future Directions for Monitoring and Management. Ryan A. Peek^{1*}, Ken Morefield², and Ryan Bourque². ¹California Department of Fish and Wildlife, Office of Cannabis, West Sacramento, CA, ryan.peek@wildlife.ca.gov; ²California Department of Fish and Wildlife, Region 1, CA. 11:10-11:30 am Controlled Propagation to Save the Santa Barbara Population of California Tiger Salamanders. Robert D. Cooper*, Erin Toffelmier, and H. Bradley Shaffer. Department of Ecology and Evolutionary Biology, University of California, Los Angeles, CA, and La Kretz Center for California Conservation Science, Institute of the Environment and Sustainability, University of California, Los Angeles, CA, robert.cooper@ucla.edu. 11:30-11:50 am Recovering an Endangered Frog Species through Integrative Reproductive Technologies. N.E. Calatayud, L.E. Jacobs*, C.L. Williams, C.C. Steiner, and D.M. Shier. San Diego Zoo Wildlife Alliance, Mountain Yellow-legged Frog Recovery Program, San Diego, CA, ljacobs@sdzwa.org. 11:50-1:50 pm **Lunch** (2 hours)

Session 2

Moderator: Rochelle Stiles, Conservation Department, San Francisco Zoo and Gardens, San Francisco, CA

Effect of Wetland Removal and Creation on *Rana draytonii* (California Red-Legged Frog) in a Dune Complex of Central California, USA: Evidence from over Two Decades of Research. Kenneth L. Gilliland¹* and Max Laubstein²*. ¹Ecology, Evolution, and Marine Biology Department, University of California, Santa Barbara, CA; ²College of Creative Studies, University of California, Santa Barbara, CA.

Hiring a Molecular Bounty Hunter: A CRISPR-based Assay for Rapid Detection of Chytrid Fungus. Diana A. Muñoz^{1,2*}, Raman P. Nagarajan¹, Patrick M. Kleeman³, Thomas Jenkinson⁴, Brian J. Halstead², And Andrea M. Schreier¹. ¹Genomic Variation Laboratory, Dept. of Animal Sciences, University of California, Davis, CA, damunoz@ucdavis.edu; ²U.S. Geological Survey, Dixon, CA; ³U.S. Geological Survey, Point Reyes Station, CA; ⁴Department of Biological Sciences, California State University, East Bay, Hayward, CA.

Lessons in Telemetry: A Study Using Two Satellite GPS Systems on Southwestern Pond Turtles on Marine Corps Base Camp Pendleton. Katherine L. Baumberger*, Andrew J. Louros, Jared N. Heath, Spencer J. Williams, Adam R. Backlin, and Robert N. Fisher. U.S. Geological Survey, Western Ecological Research Center, San Diego Field Station, San Diego, CA, kbaumberger@usgs.gov.

Assessment of Wildfire Impacts on Foothill Yellow-legged Frogs (*Rana boylii*) from the North Fork Feather River, California. Kevin Wiseman^{1,2*}, Karla Marlow¹, Joe Drennan¹, Andie Herman³, and Brian Halstead⁴. ¹Kleinfelder, San Francisco, CA, kwiseman@kleinfelder.com; ²Department of Herpetology, California Academy of Sciences, San Francisco, CA; ³Pacific Gas and Electric Company, San Ramon, CA; ⁴Western Ecological Research Center, U.S. Geological Survey, Dixon, CA.

Break and Refreshments (30 min).

Inter-Toad Gene Flow: A Genomic Assessment of Hybridization Between Western and Yosemite Toads (*Anaxyrus boreas* × *canorus*). Paul A. Maier^{1*}, Jeffrey A. Mabe^{2*}, Jennifer L. Hale³, Bryce P. Kantz³, and Andrea Herman⁴. ¹FamilyTreeDNA, Gene by Gene, Houston, TX, paulm@genebygene.com; ²Eldorado National Forest, U.S. Department of Agriculture, Placerville, CA; ³ICF, 980 9th Street Suite 1200, Sacramento, CA; ⁴Pacific Gas & Electric Company, 300 Lakeside Drive, Oakland, CA.

Divergence Time Estimation and Paleobiogeography of the Salamander Subgenus *Plethopsis.* Max G. Laubstein^{1,2}*, Christopher J. Evelyn¹, Jeffrey R. Knott³, and Douglas S. Wilson⁴. ¹Cheadle Center for Biodiversity and Ecological Restoration, University of California, Santa Barbara; ²College of Creative Studies, University of California, Santa Barbara; ³Department of Geological Sciences, California State University, Fullerton; ⁴Department of Earth Science and Marine Science Institute, University of California, Santa Barbara.

2:10-2:30 pm

1:50-2:10 pm

2:30-2:50 pm

2:50-3:10 pm

3:10-3:40 pm

3:40-4:00 pm

4:00-4:20 pm

4:20-4:40 pm Monitoring Methods for Tidal Marsh Populations of Northwestern Pond Turtle (Actinemys marmorata, NPT) within Suisun Bay, CA. Henry P. Hwang*, and Alistair L. Dobson*. Vollmar Natural Lands Consulting (VNLC), Berkeley, CA, henry@vollmarconsulting. **Announcements:** Dave Bradford 4:40-4:45 pm There is no formal "Congregation" this year, but the local committee members will 6:00-ish pm mention several venues in town that may be of interest. Friday, January 10, 2025 **Registration and Refreshments** 7:45-8:30 am **Announcements:** Dave Bradford 8:30-8:40 am Session 3 Sophia Weinmann, California Department of Fish and Wildlife, Rancho Cordova, CA Moderator: Range-wide Landscape Genomics of the California Tiger Salamander. Erin 8:40-9:00 am Toffelmier^{1,2*}, Robert D. Cooper^{1,2}, Evan Mccartney-Melstad¹, and Brad Shaffer^{1,2}. ¹Department of Ecology and Evolutionary Biology, University of California, Los Angeles, CA, etoff@ucla.edu; ²The La Kretz Center for California Conservation Science, University of California, Los Angeles, CA. 9:00-9:20 am Private Property, Pot Grows, and Putative Species: Microendemism in Stanislaus River Canyon Batrachoseps. Nicholas R. Van Gilder^{1*}, Noah M. Morales², Casey D. Moss³, and Elizabeth L. Jockusch¹. ¹Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT, nicholas.van gilder@uconn.edu; ²Vollmar Natural Lands Consulting, Arcata, CA; ³ICF, Sacramento, CA. 9:20-9:40 am Effects of Invasive American Bullfrogs and their Removal on Northwestern Pond **Turtles.** Sidney M. Woodruff^{1*}, Robert L. Grasso², Brian J. Halstead³, and Brian D. Todd¹. ¹Department of Wildlife, Fish, and Conservation Biology, University of California, Davis, CA, smwoodruff@ucdavis.edu; ²Resources Management and Science Division, Yosemite National Park, El Portal, CA; ³Western Ecological Research Station. U.S. Geological Survey, Dixon, CA. 9:40-10:00 am A Year in the Thermal Life of the Relict Leopard Frog (Rana onca) at Hot and Cold Springs. Robert P. Pelletier*, and Jef R. Jaeger. School of Life Sciences, University of Nevada, Las Vegas, NV, robert.pelletier@unlv.edu. 10:00-10:30 am **Break and Refreshments** (30 min)

10:30-10:50 am Occurrence and Surface Availability of Siskiyou Mountains Salamanders (*Plethodon stormi*) and Scott Bar Salamanders (*P. asupak*) in Northern California. Daniel A. Macias¹, Casey Moss¹, Patrick M. Kleeman², Jonathan P. Rose³, and Brian J. Halstead^{1*}.

¹U.S. Geological Survey, Western Ecological Research Center, Dixon, CA,

bhalstead@usgs.gov; ²U.S. Geological Survey, Western Ecological Research Center, Point Reyes Station, CA; ³U.S. Geological Survey, Western Ecological Research Center, Santa Cruz, CA.

10:50-11:10 am **15 Years of Mountain Yellow-legged Frog Reintroductions: Lessons Learned.** Roland A. Knapp* and Thomas C. Smith. Sierra Nevada Aquatic Research Laboratory, University of California, Mammoth Lakes, CA, roland.knapp@ucsb.edu.

11:10-11:30 am Habitat Use and Partitioning by Foothill Yellow-Legged Frogs and Red-Bellied Newts in their Aquatic Life Stages. B. Sabo^{1,3*}, D. G. Cook², D. Crocker¹, J. Hernandez-Ayala¹, and D. Girman¹. ¹Sonoma State University, Sonoma, CA; ²Sonoma County Water Agency, Sonoma, CA; ³WRA, Inc., San Rafael, CA.

11:30-11:50 am Amphibian Update for Yosemite National Park – Success of New Management Actions and Future Planning Efforts. Robert L. Grasso^{1*}, Rochelle Stiles², Ninette R. Daniele¹, and Tiffany May¹. ¹Resources Management and Science Division, Yosemite National Park, El Portal, CA, rob_grasso@nps.gov; ²San Francisco Zoo and Gardens, San Francisco, CA.

11:50-1:40 pm **<u>Lunch</u>** (1 hour, 50 minutes)

Session 4

Rudi von May, Biology Program, California State University Channel Islands

1:40-2:00 pm

Dipnet Surveys Provide Accurate Abundance Estimates for California Tiger
Salamander and Pacific Treefrog Larvae. David Cook¹*, Leyna Stemle², and
Christopher Searcy². ¹Sonoma County Water Agency (Sonoma Water), Santa Rosa, CA,
salamanderdave@sbcglobal.net; ²University of Miami, Department of Biology, Coral
Gables, FL.

2:00-2:20 pm

Habitat Use and Movement of the California Red-legged Frog (Rana draytonii) in th

2:00-2:20 pm Habitat Use and Movement of the California Red-legged Frog (*Rana draytonii*) in the Rock Creek Off Highway Vehicle Area in the Eldorado National Forest, California.

Maura K. Santora. Eldorado National Forest, Placerville, CA, maura.santora@usda.gov.

2:20-2:40 pm Chileno Valley Newt Brigade: 2024 Update. Sally Gail¹, Lori Eanes², and Celia Chatham¹*. ¹The Chileno Valley Newt Brigade, Petaluma, CA, info@chilenovalleynewtbrigade.org; ²Lori Eanes Photography, San Francisco, CA.

2:40-3:05 pm **Break and Refreshments** (25 min)

3:05-3:25 pm Post-fire Update on the Relictual Slender Salamander (*Batrachoseps relictus*). Casey D. Moss^{1*}, Robert W. Hansen², Elizabeth L. Jockusch³, Nicholas Van Gilder³, and Noah Morales⁴. ¹ICF; Sacramento, CA; ²Museum of Vertebrate Zoology, University of California, Berkeley, CA; ³Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT; ⁴Vollmar Natural Lands Consulting, Arcata, CA.

3:25-3:45 pm

Ten Years in the Santa Monica Mountains: California Red-legged Frog (*Rana draytonii*) Reintroduction Successes and Challenges. Katy S. Delaney^{1*}, Sarah M. Wenner², Heidi B. Cutia¹, Mark Mendelsohn¹, Adam Backlin³, Elizabeth Gallegos³, Robert N. Fisher³, and Seth P.D. Riley¹. ¹Santa Monica Mountains National Recreation Area, Thousand Oaks, CA, katy_delaney@nps.gov; ²Department of Environmental Science, Policy, and Management, University of California, Berkeley, CA; ³U.S. Geological Survey, Western Ecological Research Center, San Diego, CA.

3:45-4:05 pm

Hanging On in the Canyon: Status Update on the Kern Canyon Slender Salamander (*Batrachoseps simatus*). Noah M. Morales^{1*}, Casey D. Moss², Elizabeth L. Jockusch^{3,} and Robert W. Hansen⁴. ¹Vollmar Natural Lands Consulting, Arcata, CA, noahmorales01@gmail.com; ²ICF International, Sacramento, CA; ³Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, CT; ⁴Museum of Vertebrate Zoology, University of California, Berkeley, CA.

4:05-4:10 pm

Announcements and Closing Remarks. Dave Bradford.

Saturday Field Trips, January 11, 2025 (Optional)

Several field trips are offered: see email sent on 12/13/24 (APTF Field Trip Info) and the attached pdf. Info on field trip options will also be available at the meeting.

POSTERS (alphabetical by author)

Thursday and Friday (all day)

Developing a Bioacoustic Workflow with Audiomoth, Kaleidoscope, and RavenPro for Anuran Conservation. Nicholas C. Burdick*, and Allison Alvarado. Department of Biology, California State University Channel Islands, Camarillo, CA.

Identifying Methods for Eradicating African Clawed Frogs (*Xenopus laevis*) in the Santa Monica Mountains. Katy Semple Delaney, Heidi B. Cutia, Stephanie E. Ruck*, and Liam K. Bertrand*. Santa Monica Mountains National Recreation Area, Thousand Oaks, CA, katy delaney@nps.gov

Investigating Terrestrial Habitat Use and Movement of Western Pond Turtles (Actinemys marmorata) during a Montane Meadow Restoration Project in Yosemite National Park. Joshua B. Mayo*, Ninette R. Daniele, and Robert L. Grasso. Resources Management and Science Division, Yosemite National Park, CA, jmayo@nps.gov.

Removal of Introduced American Bullfrogs (*Lithobates catesbeianus*) in Yosemite Park, California, 2019-2024. Matthew E. Millado*, Robert L. Grasso, and Ninette R. Daniele. Resources Management and Science Division, Yosemite National Park, El Portal, CA, memillado@gmail.com.

Aquatic Prey in an Introduced Population of African Clawed Frogs (*Xenopus laevis*) in the Santa Monica Mountains. Ashley Pacheco^{1*}, Heidi B. Cutia², Katy S. Delaney², and Rudolf Von May¹. ¹Biology Program, California State University, Channel Islands, Camarillo, CA. ²Santa Monica Mountains National Recreation Area, National Park Service, Thousand Oaks, CA.

Polymorphism as a Precursor to Speciation in a California Endemic Salamander.Brooklyn S. Stone¹, Yinghui Wang², and Christopher J. Evelyn³. ¹Ecology, Evolution and Marine Biology Department, University of California Santa Barbara, Santa Barbara, CA; ²Federated Department of Biological Sciences, New Jersey Institute of Technology, Newark, NJ; ³Cheadle Center for Biodiversity and Ecological Restoration, University of California Santa Barbara, Santa Barbara, CA.

Elevational Patterns of Body Size, Limb Size, and Trait Loss in Terrestrial-breeding Frogs. Addalie Thiessen¹*, Malena Cantoni¹*, Nicholas Burdick¹, Leslie Suarez¹, Molly Womack², Allison Alvarado¹, and Rudolf Von May¹. ¹Biology Program, California State University, Channel Islands, Camarillo, CA. ²Department of Ecology & Evolutionary Biology, Cornell University, Ithaca, NY.

^{*} Indicates presenter in multi-authored presentation