

**California-Nevada Amphibian Populations Task Force
January 6-7, 2011**

**Yosemite National Park, Yosemite Village, CA
(Yosemite Lodge at the Falls, Cliff/Falls Room)**

AGENDA

Chair: David Bradford, US Environmental Protection Agency, National Exposure Research Laboratory, Las Vegas, NV

Meeting Coordinator: Jef Jaeger, UNLV School of Life Sciences and Public Lands Institute, Las Vegas, NV

Yosemite National Park Host: Heather McKenny, Division of Resources Management and Science, Yosemite National Park, El Portal, CA

Wednesday, January 5, 2011

Evening Informal, non-hosted gathering at the Mountain Room Bar located next to the meeting rooms (near food court)

Thursday, January 6, 2011

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

8:30-8:45 am **Introduction and Announcements.** Dave Bradford and Heather McKenny. ¹US Environmental Protection Agency, Las Vegas, NV; ²Yosemite National Park, CA

8:45-8:55 am **Welcome to Yosemite National Park.** Niki Nicholas, Chief, Resources Management and Science, Yosemite National Park, El Portal, CA

Session 1 Moderator: David Bradford, US Environmental Protection Agency, Las Vegas, NV

8:55-9:20 am **Status of Remnant Populations of Cascades Frogs (*Rana cascadae*) in the Southern Cascades of California.** Karen Pope^{1*}, Monty Larson¹, and Jonah Piovia-Scott². ¹USDA Forest Service, Pacific Southwest Research Station, Arcata CA; ²Department of Veterinary Medicine and Epidemiology, University of California, Davis, CA (25 min)

9:20-9:45 am ***Batrachochytrium dendrobatidis* in Arizona: Detection by Water Filtration and the Influence of Water Chemistry on Bd Dynamics.** Oliver Hyman and James Collins. School of Life Sciences, Arizona State University, Tempe, AZ (25 min)

9:45-10:10 am **Observations on the Decline of an Isolated Columbia Spotted Frog Population in Northeast Nevada.** Maija Meneks, Salmon-Scott River Ranger District, Klamath National Forest. (25 min)

10:10-10:45 am **Break** (35 min)

Session 2

Moderator: Jamie Bettaso, US Fish & Wildlife Service, Arcata, CA

- 10:45-11:10 am **Contaminants and Declines of Cascades Frogs.** Carlos Davidson¹, Stanley, Kerri², and Staci M. Simonich². ¹Environmental Studies Program, San Francisco State University, San Francisco, CA; ²Department of Environmental and Molecular Toxicology, Oregon State University, Corvallis OR. (25 min)
- 11:10-11:35 am **Pesticides, Air Flow, and Population Declines of Sierra Nevada Alpine Frogs.** David Bradford, National Exposure Research Laboratory, U.S. Environmental Protection Agency, Las Vegas, NV (25 min)
- 11:35-12:00 pm **A Species Distribution Model for Guiding Oregon Spotted Frog (*Rana pretiosa*) Surveys Near the Southern Extent of Its Geographic Range.** Luke Groff^{1*}, Sharyn Marks², and Marc P. Hayes³. ¹Department of Biological Sciences and the California Cooperative Fish and Wildlife Research Unit, Humboldt State University, Arcata, CA; ²Department of Biological Sciences, Humboldt State University, Arcata, CA; ³Washington Department of Fish and Wildlife, Olympia, WA. (25 min)
- 12:00-1:15 pm **Lunch** (75 min)

Session 3

Moderator: Hartwell Welsh, Jr., USDA Forest Service, Pacific Southwest Research Station, Arcata, CA

- 1:15-1:40 pm **The Sierra Madre Yellow-legged Frog: A Decade of Monitoring, Conservation, and Restoration.** Adam Backlin^{1*}, Jesse Bennett², Raul Rodriguez³, Tim Hovey⁴, Curtis Milliron⁵, Betsy Bolster⁶, Leslie Welch⁷, Kathie Meyer⁸, Frank Santana⁹, Andy Snider¹⁰, Ian Recchio¹¹, Becca Fenwick¹², Ken Kietzer¹³, Liz Gallegos¹⁴, and Robert Fisher¹⁵. ¹US Geological Survey, Irvine, CA; ²US Fish and Wildlife Service, Carlsbad, CA; ³California Department of Fish and Game, Ontario, CA; ⁴California Department of Fish and Game, Santa Clarita, CA; ⁵California Department of Fish and Game, Bishop, CA; ⁶California Department of Fish and Game, Sacramento, CA; ⁷US Forest Service, San Fernando, CA; ⁸US Forest Service, Lytle Creek, CA; ⁹San Diego Zoo Institute For Conservation Research, Escondido, CA; ¹⁰Fresno Chaffee Zoo, Fresno, CA; ¹¹Los Angeles Zoo and Botanical Gardens, Los Angeles, CA; ¹²James San Jacinto Mountain Reserve, Idyllwild, CA; ¹³California State Parks, Lake Perris, CA; ¹⁴US Geological Survey, Irvine, CA; ¹⁵US Geological Survey, San Diego, CA (25 min)
- 1:40-2:05 pm **Exploring the Evidence of a Historical Chytrid Epidemic in the Yosemite Toad by PCR Analysis of Museum Specimens.** Celeste Dodge, Dept. of Biology, San Francisco State University, San Francisco, CA (25 min)
- 2:05-2:25 pm **Influence of Multiple Pathogens on Amphibians: Individual and Combined Effects of *Ribeiroia* and *Batrachochytrium dendrobatidis* on Pacific Treefrogs.** John Romansic^{1*}, Pieter Johnson², Catherine Searle¹, Tate Tunstall³, Barbara Han⁴, Jason Rohr⁵, and Andrew Blaustein¹. ¹Department of Zoology, Oregon State University, Corvallis, OR; ²Department of Ecology and Evolutionary Biology, University of Colorado, Boulder, CO; ³Department of Ecology, Evolution and Marine Biology, University of California, Santa Barbara, Santa Barbara, CA; ⁴Odum School of Ecology, University of Georgia, Athens,

GA; ⁵Department of Integrative Biology, University of South Florida, Tampa, FL. (20 min)

2:25-2:45 pm **Development of Regional Habitat Suitability Criteria for Foothill Yellow-Legged Frog Oviposition and Tadpole Rearing in Northern Sierra Nevada Rivers.** Cheryl Bondi^{1*}, Sarah Yarnell¹, and Amy Lind². ¹Watershed Sciences Center, University of California, Davis, CA; ²US Forest Service, Sierra Nevada Research Center, Davis, CA (20 min)

2:45-3:15 pm **Break** (30 min)

Session 4 Moderator: Gretchen Padgett-Flohr, Department of Zoology, Southern Illinois University, Carbondale, IL

3:15-3:40 pm **Inter-annual Variability in Observations of California Tiger Salamander Breeding in Central California Stock Ponds.** Jeff Alvarez^{1*} and Mary Shea². ¹The Wildlife Project, Modesto, CA; ²Contra Costa Water District, Concord, CA (25 min)

3:40-4:05 pm **Recent Amphibian-Related Conservation Actions in Sequoia and Kings Canyon National Parks.** Danny Boiano^{1*}, Erik Meyer¹, Roland Knapp², Steven Ostojka³, Eric Berlow⁴, and Matthew Brooks³. ¹Sequoia and Kings Canyon National Parks, National Park Service, Three Rivers, CA; ²Sierra Nevada Aquatic Research Laboratory, University of California Santa Barbara, Mammoth Lakes, CA; ³Western Ecological Research Center, Yosemite Field Station, U.S. Geological Survey, El Portal, CA; ⁴Sierra Nevada Research Institute, Yosemite Field Station, University of California Merced, Wawona Village, CA (25 min)

4:05-4:30 pm **Landscape Genetics of Foothill Yellow-legged Frogs (*Rana boylei*) in Regulated and Unregulated Rivers: Assessing Riverscape Connectivity and Genetic Fragmentation.** Ryan Peek* and Jennifer Dever. Dept. of Biology, University of San Francisco, San Francisco, CA (25 min)

4:30-4:55 pm **Sex-biased Predation on Newts of the Genus *Taricha* by a Novel Predator and its Relationship with Tetrodotoxin Toxicity.** Amber Stokes¹, David Cook^{2*}, Charles Hanifin³, Edmund Brodie III⁴, and Edmund Brodie, Jr.¹ ¹Department of Biology, Utah State University, Logan, UT; ²Sonoma County Water Agency, Santa Rosa, CA; ³Hopkins Marine Station, Stanford University, Pacific Grove, CA; ⁴Mountain Lake Biological Station and Department of Biology, University of Virginia, Charlottesville, VA. (25 min)

4:55-5:05 pm **An Update on Disease Screening Needs for Amphibian (and Reptile) Studies.** Amy Lind. US Forest Service, Sierra Nevada Research Center, Davis, CA (10 min)

Evening **Dinner on your own; suggestions will be provided.**

POSTERS

All Day,
Thurs-Fri **Chytridiomycosis: An Emerging Infectious Disease.** Stephanie Hyland* and Vance Vredenburg. Department of Biology, San Francisco State University, San Francisco, CA

Friday, January 7, 2011

- 7:45-8:20 am **Registration and Refreshments**
- 8:20-8:25 am **Announcements.** David Bradford, US EPA, Las Vegas, NV
- Session 5** Moderator: Karen Pope, Pacific Southwest Research Station, Arcata, USDA Forest Service, Arcata, CA
- 8:25-8:50 am **Changing the Outcome of Amphibian Chytrid Fungus Epizootics Using Field Treatments: Does it Work?** Roland Knapp, Sierra Nevada Aquatic Research Laboratory, University of California, Mammoth Lakes, CA (25 min)
- 8:50-9:15 am **The Perils of Unpalatable Periphyton!** Sarah Kupferberg^{1*} and Amy Lind². ¹Dept. of Integrative Biology, University of California, Berkeley, CA; ²US Forest Service, Sierra Nevada Research Center, Davis, CA (25 min)
- 9:15-9:40 am **Evaluating the Impact of a Fungal Pathogen on the Cascades Frog (*Rana cascadae*) and other Native Amphibians in the Mountains of Northern California.** Jonah Piovato-Scott^{1*}, Karen Pope², Sharon Lawler³, Janet Foley¹, and Esther Cole⁴. ¹Department of Veterinary Medicine and Epidemiology, University of California, Davis, CA; ²Redwood Sciences Laboratory, US Forest Service, Arcata, CA; ³Department of Entomology, University of California, Davis, CA; ⁴Ecology Graduate Group, University of California, Davis, CA (25 min)
- 9:40-10:05 am **Landscape Epidemiology of *Batrachochytrium dendrobatidis* in Central California.** Gretchen Padgett-Flohr^{1*} and R.L. Hopkins, II². ¹Dept. of Zoology, Southern Illinois University, Carbondale, IL; ²Insignia Environmental, Palo Alto, CA (25 min)
- 10:05-10:40 am **Break** (35 min)
- Session 6** Moderator: Roland Knapp, Sierra Nevada Aquatic Research Laboratory, University of California, Mammoth Lakes, CA
- 10:40-11:05 am **Update on Revised *Amphibian And Reptile Species of Special Concern in California and Other CDFG Amphibian-Related Conservation Efforts.*** Betsy Bolster, California Department of Fish and Game, Nongame Wildlife Program, Sacramento, CA (25 min)
- 11:05-11:30 am **Frogs, Fish and Forestry: The Need for a Holistic View of Network Processes to Conserve Native Stream Biodiversity in Forest Catchments.** Hartwell Welsh, Jr., USDA Forest Service, Pacific Southwest Research Station, Arcata, CA (25 min)
- 11:30-11:55 am **Do Geothermal Ecosystems Provide Amphibians with Refuge from Chytridiomycosis?** M. J. Forrest^{1*}, J.R. Jaeger², M.A. Schlaepfer³. ¹Scripps Institution of Oceanography, Center for Marine Biodiversity and Conservation, La Jolla, CA; ²Public Lands Institute & School of Life Sciences, University of Nevada, Las Vegas, NV; ³State University of New York, College of Environmental Science and Forestry, Syracuse, NY. (25 min)

11:55-1:10 pm **Lunch** (75 min)

Session 7

Moderator: Jef Jaeger, UNLV School of Life Sciences and Public Lands Institute, Las Vegas, NV

1:10-1:35 pm **Factors Influencing Lotic Breeding Amphibians in the East Bay Regional Park District.** Steven Bobzien¹* and Sarah Kupferberg². ¹East Bay Regional Park District, Oakland, CA; ²Dept. of Integrative Biology, University of California, Berkeley, CA (25 min.)

1:35-2:00 pm **Evaluating Potential Habitat and Temperature Limiting Factors for Foothill Yellow-Legged Frogs (*Rana boylei*) in the McCloud River Downstream of McCloud Dam.** Holly Shepley¹*, Ryan Peek¹, Christine Champe¹, and Andie Herman². ¹Stillwater Sciences, Berkeley, CA; ²Pacific Gas and Electric, San Ramon, CA (25 min)

2:00-2:25 pm **Community Effects of Mountain Yellow-Legged Frog Tadpoles.** Thomas Smith*. Dept. of Ecology, Evolution, and Marine Biology, University of California Santa Barbara, Santa Barbara, California. (25 min)

2:25-2:50 pm **Assessment of the Vulnerability of *Rana pretiosa* to *Batrachochytrium dendrobatidis*.** Marc Hayes¹* and Gretchen Padgett-Flohr². ¹Washington Department of Fish and Wildlife, Olympia, WA; ²Southern Illinois University-Carbondale, Carbondale, IL. (25 min)

2:50-3:15 pm **Break** (25 min)

Session 8

Moderator: Heather McKenny, Division of Resources Management and Science, Yosemite National Park, El Portal, CA

3:15-3:40 pm **Are Native Amphibians and Exotic Prey Promoting the Use of Historically Fishless California High-mountain Habitats by River Otters, *Lontra canadensis*?** Justin M. Garwood^{1,3*}, Roland A. Knapp², Karen L. Pope³, Michael Magnuson⁴, Jeff R. Maurer^{5,6}. ¹Current Address: California Department of Fish and Game, Arcata, CA; ²Sierra Nevada Aquatic Research Laboratory, University of California, Mammoth Lakes, CA; ³Pacific Southwest Research Station, Arcata, USDA Forest Service, Arcata, CA; ⁴Biological Resources Management Division, Lassen Volcanic National Park, Mineral, CA; ⁵Resources Management and Science, Yosemite National Park, El Portal, CA; ⁶Deceased. (25 min)

3:40-4:05 pm **A Programmatic Safe Harbor Agreement for the Recovery of Two Threatened Amphibians in Alameda County, California.** Jackie Charbonneau¹, Terence Huff¹, Pete Van Hoorn², Leslie Koenig², Kent Reeves^{2*}, Terry Young³, Richard Kuyper⁴, and Kathy Brown⁴. ¹Natural Resources Conservation Service, Livermore, CA; ²Alameda County Resource Conservation District, Livermore, CA; ³Consulting Scientist, Oakland, CA; ⁴U.S. Fish and Wildlife Service, Conservation Partnerships Program, Galt, CA (25 min)

- 4:05-4:30 pm **Toward Immunogenetic Studies of Amphibian Chytridiomycosis: Linking Innate and Acquired Immunity.** Jonathan Richmond, US Geological Survey, San Diego Field Station, San Diego, CA (25 min)
- 4:30-4:55 pm **An Artificial Hibernation Technique to Promote Breeding in a Captive Population of southern California Mountain Yellow-Legged Frog (*Rana muscosa*).** Frank Santana*, and Jeff Lemm. San Diego Zoo Institute for Conservation Research, San Diego, CA (25 min)
- 4:55-5:00 pm **Closing Remarks.** Dave Bradford.

Saturday, January 8, 2011

- 10:00~3:00 pm **Field Trip near Hetch Hetchy/O'Shaughnessy Dam.** Sign-up and details to be provided at meeting on January 6.

**SUBMITTED ORAL PRESENTATIONS
THAT WILL NOT PRESENTED
(Abstracts Provided with Others)**

Thermoregulatory Behavior and Growth Characteristics of Western Pond Turtles on the Regulated Mainstem Trinity River and Unregulated South Fork Trinity River. James Bettaso^{1*}, Donald Ashton², and Hartwell Welsh². ¹U. S. Fish and Wildlife Service, Arcata Field Office, Arcata, CA; ²U. S. Forest Service, Redwood Sciences Laboratory, Arcata, CA

SAVE THE FROGS! -- Protecting Amphibian Populations in California and Beyond. Kerry Kriger. SAVE THE FROGS!, Santa Cruz, CA

Terbinafine Hydrochloride in Ethanol Effectively Clears *Batrachochytrium dendrobatidis* in Amphibians. Jay Bowerman¹, Chris Rombough², Sarah Weinstock³, and Gretchen Padgett -Flohr⁴. ¹Sunriver Nature Center & Observatory, Sunriver, OR; ²Rombough Biological, Aurora, OR; ³3116 Keokuk St., Butte, MT; ⁴Southern Illinois University, Dept. of Zoology, Carbondale, IL.

* Indicates presenter in multi-authored talks