



# ICOET 2025

INTERNATIONAL CONFERENCE ON  
ECOLOGY AND TRANSPORTATION



DENVER, CO | MAY 11-15, 2025

PROGRAM LAST UPDATED 2/20/25  
PROGRAM IS NOT FINAL AND WILL BE UPDATED PERIODICALLY  
AS WE WE GET CLOSER TO THE EVENT



LIVE LIFE  
OUTSIDE

# Colorado Welcomes You to ICOET 2025



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# TABLE OF CONTENTS

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<b>PAGE 4-5</b>	Message From the Chair & Organizer
<b>PAGE 7</b>	Keynote Speakers
<b>PAGE 8</b>	Sponsors and Organizers
<b>PAGE 10-12</b>	Venue Maps
<b>PAGE 13-20</b>	Event Program
<b>PAGE 22-35</b>	Podium Presentations
<b>PAGE 37-42</b>	Lightning Presentations
<b>PAGE 43-49</b>	Poster Presentations
<b>PAGE 52</b>	Contact Information

## CONFERENCE TIMES & TIME ZONES

Thanks for joining ICOET from your time zone. Because the conference includes an in-person component, all times in the program are expressed relative to local time in Denver, Colorado (Mountain Daylight Time, MDT). If you are participating virtually, you can find your time relative to MDT based on your location, using this website: <https://greenwichmeantime.com/time-gadgets/time-zone-converter/>. We have also put major time zones at the beginning of the program.

**For example, Denver is -6:00 hours relative to GMT, so 9 am MDT in the program = 8 AM in California and 5 pm in Johannesburg, South Africa.**



# MESSAGE FROM THE CHAIR

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Chris Slesar, ICOET Conference Chair  
*Vermont Agency of Transportation*

On behalf of the ICOET Steering Committee, it is my pleasure to welcome you to the fourteenth biennial International Conference on Ecology and Transportation in beautiful Denver, Colorado. ICOET is more than a conference, it is a community of transportation and environmental planners, practitioners, and academics working at the nexus of linear infrastructure and ecology. Again, this is a hybrid conference expanding our reach far beyond the walls of the conference rooms via virtual participation. New to ICOET in 2025 are a series of training sessions on relevant topics ranging from community involvement to managing and monitoring bats in transportation projects.

We have a robust and exciting program consisting of 4 trainings, 270 presentations (Podium, Lightning, and Multi-media/Poster), from 18 countries and 35 US states. We are honored to have award-winning independent conservation journalist, author of *Crossings: How Road Ecology is Shaping the Future of Our Planet*, Ben Goldfarb as our keynote speaker.

The conference theme for 2025 is Bridging Divides Through Collaboration. Collaboration is critical to success on all scales. Collaborative partnerships overlap and interact in dynamic ways to create and maintain a healthy planet. There are collaborations that are exclusive to the work we are doing in our own jurisdictions. And there are collaborations that capture broad landscapes and multiple political jurisdictions across the globe.

The magic of ICOET is rooted in multifaceted collaborations. ICOET is fueled by the interaction of many individuals representing many diverse organizations, working at different scales, from global to local - together producing a combined effect greater than the sum of their separate parts. This interdisciplinary conference flourishes on the relationships among participants, and their relationships in the contexts in which they are working.

Colorado's magnificent landscape of arid desert, river canyons, and rugged snow-covered Rocky Mountains provides the backdrop for this meeting. It is within this setting that we will undertake a four-day dialog that will inform and inspire participants to return to their respective jurisdictions and continue to bring our work to the next level. Conference participants will be steeped in the most current research and practices as represented by the foremost minds (both newcomers' and veterans') in transportation ecology research, academics, policy, and practice.

ICOET 2025 will be highly engaging and interactive and will delve into a diversity of relevant topic areas that root transportation decision-making in science and sound policy. We enthusiastically and warmly welcome newcomers to ICOET and look forward to embracing them in the camaraderie of the ICOET community. Please take every opportunity to network with old and new colleagues, collaborators, and friends. We look forward to your active engagement in ICOET 2025.

Welcome to Denver and enjoy the conference!

# MESSAGE FROM THE ORGANIZER

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Fraser Shilling, PhD

*Road Ecology Center Director and ICOET Lead Organizer*

Every two years, ICOET brings you, a large, diverse and international crowd together to examine how transportation systems impact nature and what we can do to reduce those impacts. Your knowledge and enthusiasm are what makes ICOET successful and allowed it to persist for over two decades now. This year's conference celebrates and focuses on partnership as an important part of mitigating the impacts of transportation. Thanks to our sponsors, to the universities supporting the next generation of transportation ecologists, to the local, state and federal agencies encouraging their staff's participation, and to the private organizations and individuals providing their expertise.

One of the founding and still most common type of presentation at ICOET is "wildlife crossings", which bridge the roads that divide nature. In many ways, wildlife crossings are analogous to partnerships that bridge political divides and probably take as much time to get built. With today's political division, coming together around re-connecting nature provides a needed respite from damaging conflict. The question for nature, as it is in politics, is whether or not we will build enough bridges to save what we value in time to preserve it.

Partnership is at the core of this year's conference theme and many of the abstracts you submitted for presentation. It's also assumed to underlie successful conservation and environmental protection. However, it's often adversity and conflict that drives advancement and innovation, not collaboration. The world's environmental protection laws, civil rights legislation, the gradual recognition of indigenous peoples' sovereignty, women's right to vote, the end of slavery, and even the creation of many national forests and parks arose from different types of adversity. In a time of conflict it is worth considering what we can learn and gain from the adversity. Should we engage in evaluation of where we are in transportation ecology, find out if we are being successful; what should we really be doing, and who should we be doing it with?

This year's ICOET will be the largest in terms of abstract submissions (270), number of panels and organized sessions (19), and number of professionals and students participating. As in previous years, ICOET will be held in hybrid format (in-person and virtual), allowing greater participation by international and state partners and also limiting greenhouse gas production from travel. ICOET benefits from: a) a very active Steering Committee, which advises on overall strategies in conference content and evolution, selects awardees, and connects the conference to other organizations; b) a Program Committee that functions as a deep bench of scientific and practice experts, and c) an Abstract Review Committee, which includes many of you, providing your expert reviews of all contributed presentations. To these Committees -- I appreciate all of your efforts, individually and collectively.

The Road Ecology Center (<https://roadecology.ucdavis.edu>) is joined in organizing ICOET 2025 by the UC Davis Institute of Transportation Studies (<https://its.ucdavis.edu/>) and the National Center for Sustainable Transportation (<https://ncst.ucdavis.edu/>). The three organizations are each pioneers and among the largest in their fields and, in combination cover most issues in evolving sustainable transportation. We are excited to bring you ICOET 2025 and to make sure that ICOET is continuously and expertly managed into the future. We look forward to meeting many of you in-person and virtually and to helping you have a great ICOET experience. Look us up online, or during the conference.



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# KEYNOTE SPEAKERS

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Ben Goldfarb

Journalist

<https://www.bengoldfarb.com/>

Ben Goldfarb is an environmental journalist whose work has appeared in National Geographic, the Atlantic, the New Yorker, Smithsonian Magazine, Science, and many other publications. His most recent book, *Crossings: How Road Ecology Is Shaping the Future of Our Planet*, was named one of the best books of 2023 by the New York Times, and received the Rachel Carson Award for Excellence in Environmental Writing and the Banff Book Competition's Grand Prize. His previous book, *Eager: The Surprising, Secret Life of Beavers and Why They Matter*, won the PEN/E.O. Wilson Literary Science Writing Award. He lives in Colorado with his wife, Elise, and his dog, Kit — which is, of course, what you call a baby beaver.



Colorado DOT Keynote speakers to be announced!



# SPONSORS & ORGANIZERS

THANK YOU to our generous private Sponsors for continuing to help us reduce registration fees, to our outstanding co-host agencies, and to the members of the Steering, Program, Abstract Review, and Awards Committees. ICOET 2025 is made possible through the financial and volunteer support of the many organizations listed in this program. Please take time during your participation during the conference to visit the Sponsor booths and exhibits, learn about their products and services, and to express your appreciation for their support of the conference.

## ORGANIZERS, LEAD SPONSORS, AND HOSTS



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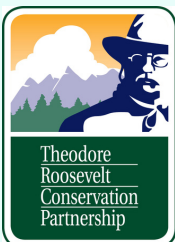
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## CONTRIBUTORS



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# POOLED FUND STUDY PARTICIPANTS

THANK YOU to these state Departments of Transportation that have donated up to \$10,000 towards ICOET 2025. They show the dedication happening across the nation for improvements to transportation ecology.



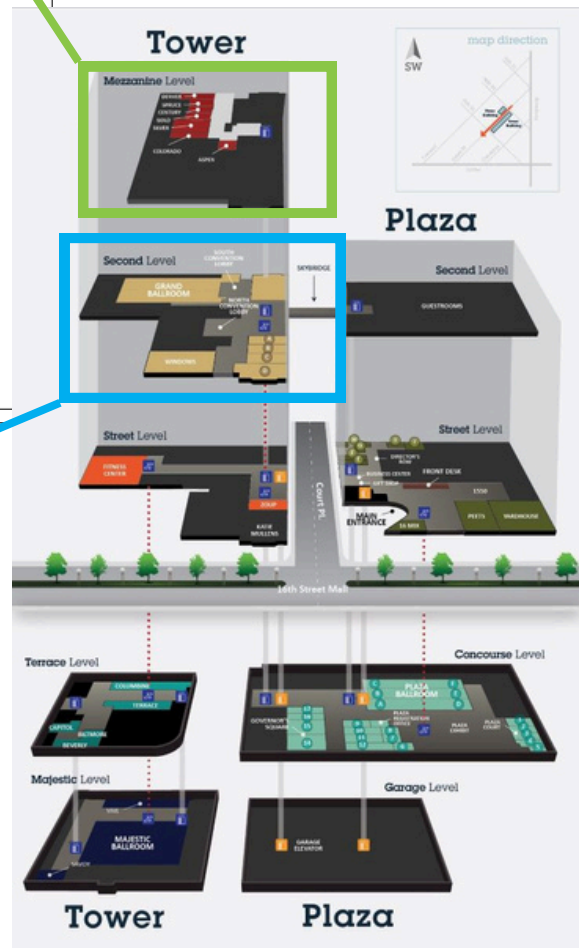
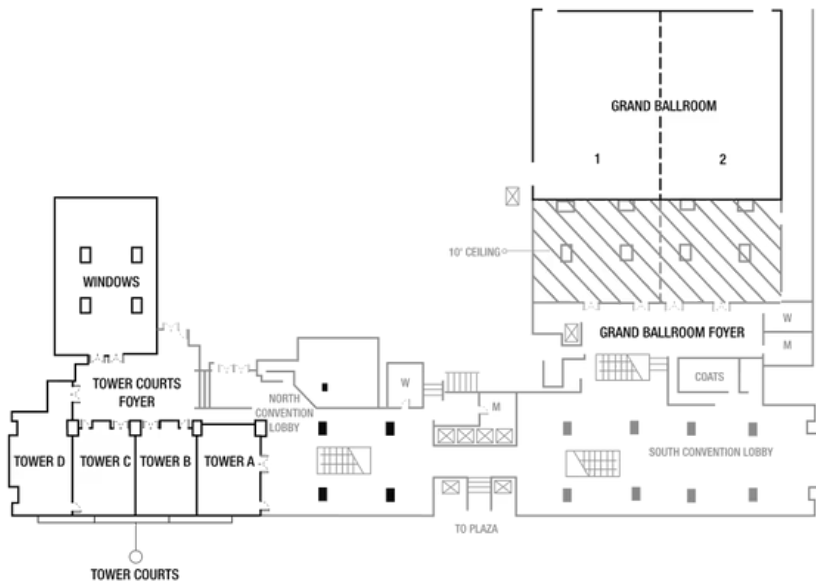
# Conference Room Map

Room assignments to be announced closer to event

I.M. PEI TOWER MEZZANINE LEVEL



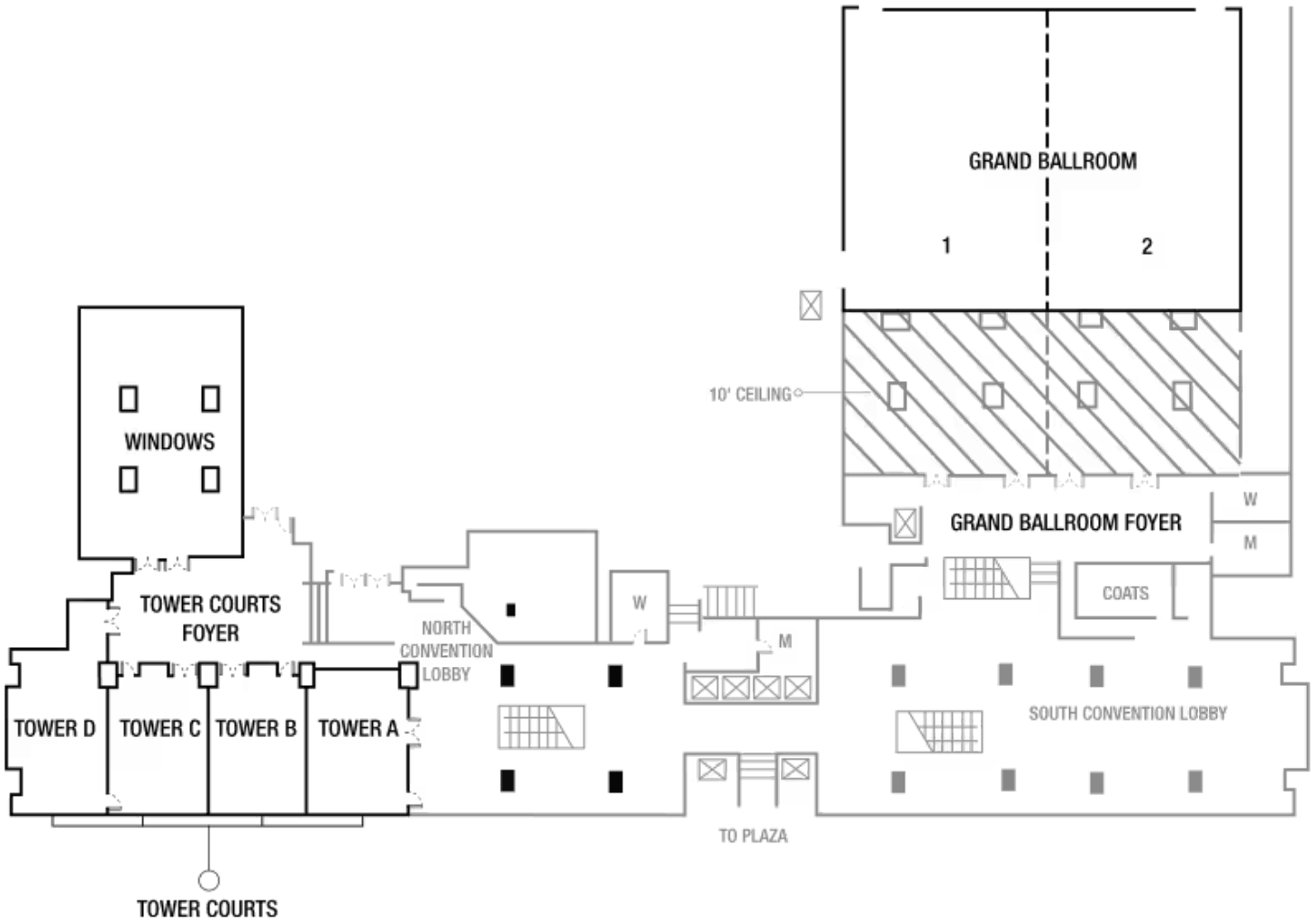
I.M. PEI TOWER SECOND FLOOR LEVEL



# Conference Room Map

Room assignments to be announced closer to event

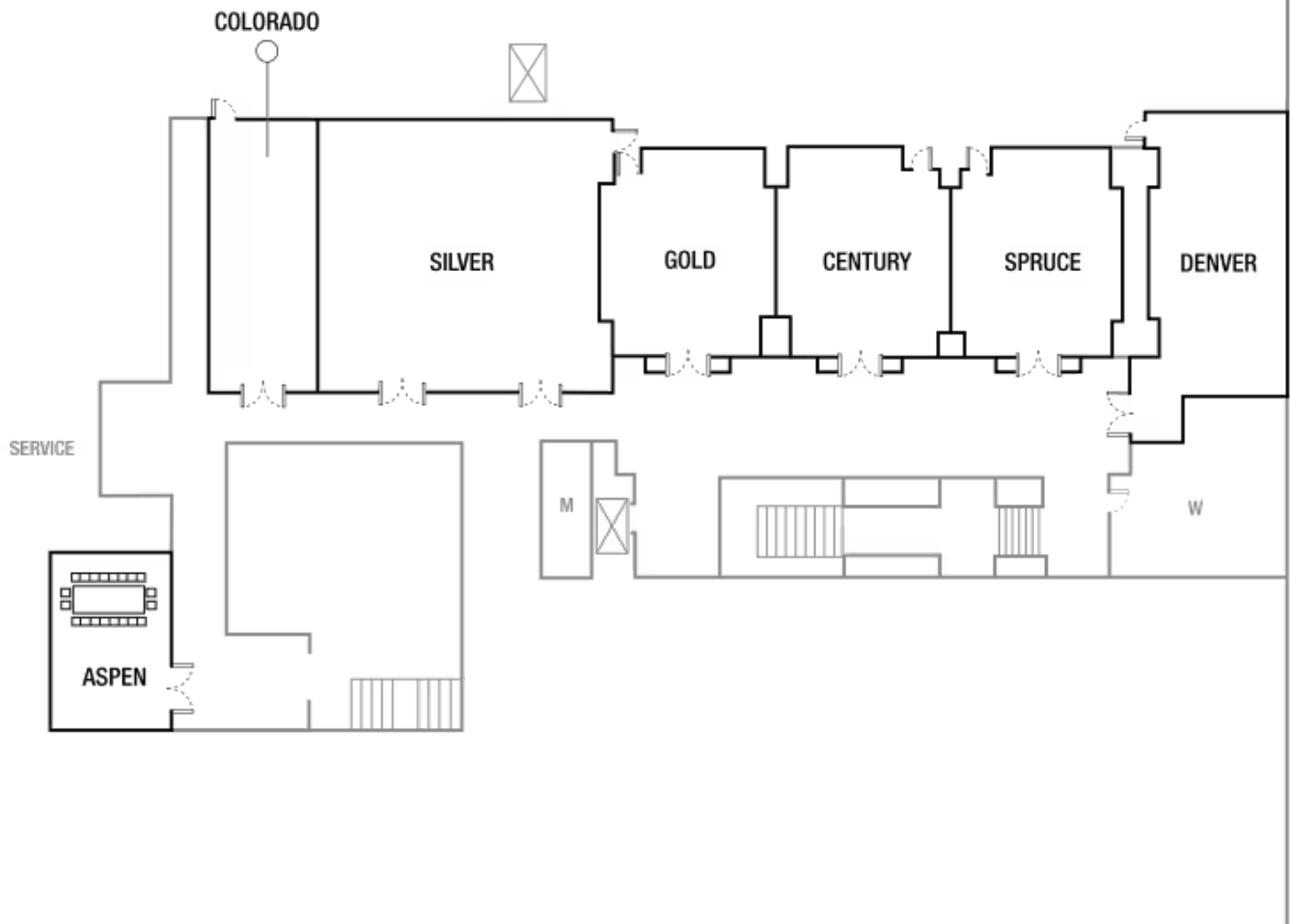
## I.M PEI TOWER SECOND FLOOR LEVEL



# Conference Room Map

Room assignments to be announced closer to event

## I.M. PEI TOWER MEZZANINE LEVEL



# EVENT PROGRAM

9 AM MDT = 8AM PDT; 3PM GMT; 5PM Johannesburg, South Africa; 8:30PM Mumbai, India, 1AM(next day) Sydney, Australia

\* indicates a virtual presentation

Room assignments and presentation sequence to be announced closer to event.

## SUNDAY, MAY 11

12:00 PM (MDT)

### ICOET Check-In Starts

Stop by the registration booth to collect your materials

1:30 PM (MDT)

### Trainings

- FHWA: Planning and implementing wildlife crossings under IJJA
- FHWA: Introduction to the stochastic empirical loading and dilution model

2:45 PM (MDT)

### Break

3:00 PM (MDT)

### Trainings

- AI: What is it and how can you use it?
- Managing and monitoring bats at transportation structures



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## MONDAY, MAY 12

- 
- 8:30 AM (MDT)**     **Day 1 Welcome Plenary Session**  
Remarks from Conference Chair, Steering Committee, and Organizer
- 
- 9:20 AM (MDT)**     **International and CO Welcomes**  
Keynote Addresses by CO Transportation and Natural Resources Secretaries
- 
- 9:50 AM (MDT)**     **Plenary Keynote: Ben Goldfarb**
- 
- 10:30 AM (MDT)**     **Break & Poster Setup**  
10 minutes
- 
- 10:40 AM (MDT)**     **Technical Sessions 1, 2, 3, 4, & 5 and Panel 1**
- Panel 1: Planning for pollinators: How voluntary conservation initiatives can address the challenges of pollinator listings for transportation agencies
  - Session 1: Partnerships connecting the Florida wildlife corridor (80, 85, 103, 201)
  - Session 2: A road runs through it: Improving stream quality & stability (5, 75, 183, \*222)
  - Session 3: Dead serious about preventing roadkill (17, 19, 146, 172)
  - Session 4: Collaborative initiatives for leveraging road ecology in Latin America (69, 79, 130, 185)
  - Session 5: The cat's meow (4, 63, 73, 128)
- 
- 12:10 PM (MDT)**     **Catered Lunch, Sponsor Meet-up, & Poster Setup**  
60 minutes
-

# EVENT PROGRAM

9 AM MDT = 8AM PDT; 3PM GMT; 5PM Johannesburg,  
South Africa; 8:30PM Mumbai, India, 1AM(next day)  
Sydney, Australia

\* indicates a virtual presentation

Room assignments and  
presentation sequence to be  
announced closer to event.

## MONDAY, MAY 12 CONTINUED

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1:10 PM (MDT)

### Technical Sessions 6, 7, 8, 9, & 10 and Lightning Session 1

- Session 6: No bank, no problem: An almost comprehensive review of FDOT alternative mitigation strategies for wildlife and resiliency (40, 77, 98, 200)
- Lightning Session 1 (8, 11, 12, 20, 34, 68, 112, \*197, \*198, 277)
- Session 7: Batting a thousand (10, 18, 153, \*250)
- Session 8: Connecting the dots ... Wildlife fencing and crossings (41, 120, 253, 275)
- Session 9: Canopy bridges: A cost effective, under-utilized fragmentation solution for arboreal species (61, 62, \*105, 177)
- Session 10: The 3Cs: Connectivity, collaboration, crossings (129, 154, 163, 231)

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2:40 PM (MDT)

### Break

20 minutes

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3:00 PM (MDT)

### Technical Sessions 11, 12, 13, 14, & 5 and Panel 2

- Panel 2: Stitching it together: Integrating transportation and land use policies to support ecological connectivity at the landscape scale
- Session 11: Corridors, collisions, & conservation funding (\*30, 123, 193, 194)
- Session 12: I get by with a little help from my friends (38, 134, 136, 262)
- Session 13: Predictions are hard, especially about the future (1, 7, 25, 26)
- Session 14: New voices, new solutions (132, 178, 217, 282)
- Session 15: I think I am being followed (158, 187, 221, 243)

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4:30 PM (MDT)

### End of Technical Sessions

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6:00 PM (MDT)

### Welcome Reception

120 minutes

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END OF DAY 1



# EVENT PROGRAM

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\* indicates a virtual presentation

**Room assignments and presentation sequence to be announced closer to event.**

## TUESDAY, MAY 13

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**9:00 AM (MDT) Technical Sessions 16, 17, 18, 19, & 20 and Lightning Session 2**

- Session 16: This session is 90% bats, and the other half is birds (53, 215, 232, 257)
- Lightning Session 2 (16, 67, 70, 117, 119, \*143, 152, 214, 272, \*283)
- Session 17: Watershed moments in aquatic connectivity (102, 219, 242, 269)
- Session 18: Connecting people to connect habitat (83, 124, 229, 268)
- Session 19: Planning for California's wildlife crossing future (35, 43, 60, 71, 72, 95, 241, 248)
- Session 20: Borders and barriers (48, 87, 96, 264)

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**10:30 AM (MDT) Break**

20 minutes

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**10:50 AM (MDT) Technical Sessions 19 (cont), 21, 22, 23, & 24 and Lightning Session 3**

- Session 21: Lift each other up: Seeing opportunities & sawing barriers (58, 118, 205, 246)
- Lightning Session 3 (33, 42, 65, 91, 101, 106, 140, 166, 207, 225)
- Session 22: Nature on the verge - What's the buzz? (46, \*160, \*199, 204)
- Session 23: Can't we all get along...? Benefiting wildlife through collaboration (84, 109, 142, 175)
- Session 19: Planning for California's wildlife crossing future (Continued)
- Session 24: Digital pathways: Enhancing wildlife connectivity through technology (23, 238, 281)

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**12:20 PM (MDT) Lunch**

Details to come closer to conference



# EVENT PROGRAM

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South Africa; 8:30PM Mumbai, India, 1AM(next day)  
Sydney, Australia

\* indicates a virtual presentation

Room assignments and  
presentation sequence to be  
announced closer to event.

## TUESDAY, MAY 13 CONTINUED

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### 1:30 PM (MDT) **Technical Sessions 25, 26, 27, & 28, Panel 3, and Lightning Session 4**

- Panel 3: Connecting Colorado: How Colorado used a statewide prioritization process to implement wildlife mitigation projects
- Lightning Session 4 (\*59, \*82, \*92, 159, \*191, 202, \*251, \*252, \*260, \*261)
- Session 25: A novel, methodological approach to present and future multi-benefit, resilient transportation design in Yellowstone National Park (64, 99, 165, 247)
- Session 26: Building partnerships to build wildlife crossings (45, 104, 157, 239)
- Session 27: Successes in crossing structures: lessons from the I-90 Snoqualmie Pass East Project across taxonomic groups and diverse measures (21, 22, 121, 208)
- Session 28: Global perspectives from the roadkill café (2, 161, \*170, 180)

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### 3:00 PM (MDT) **Break** 20 minutes

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### 3:20 PM (MDT) **Panel 4, 5, 6, & 7 and Trainings and Workshops**

- Panel 4/5: Collaborative strategies for integrating ecology into transportation projects: Insights from the Duckabush Estuary restoration/Arach-No-phobia: Perspectives and results from a unique, collaborative study of tarantulas in southeast Colorado
- Panel 6/7: Wild ways: Designing connectivity/The application of nature-based solutions (NBS) for transportation systems
- Training: Promising practices for community involvement in transportation ecology
- Training: Advancing transportation ecology through agency-university partnerships
- Workshop: Communicating your transport ecology story to the community, engineers and your Mum: Enthralling your audience with a captivating blog and stunning audio-visuals
- Workshop: From policy to practice: Tackling barriers to building wildlife crossings

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### 5:00 PM (MDT) **Poster Reception** 120 minutes

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**END OF DAY 2**

# EVENT PROGRAM

9 AM MDT = 8AM PDT; 3PM GMT; 5PM Johannesburg, South Africa; 8:30PM Mumbai, India, 1AM(next day) Sydney, Australia

**WEDNESDAY, MAY 14**

**8:00 AM (MDT)**

## **Field Trip Day Orientation**

Details to come closer to conference.

**8:30 AM (MDT)**

## **Field Trips (\*denotes half day)**

- I-25 Front Range Wildlife Crossings and Riparian Mitigation
- US 34 Big Thompson Flood Resiliency and Stream Restoration
- Rocky Mountain National Park
- I-70 Mountain Corridor: Genesee to Georgetown Wildlife Crossings
- State Highway 9 & I-70 East Vail Pass: Locally-driven Wildlife Crossings Projects
- \*Rocky Mountain Arsenal National Wildlife Refuge Wildlife and Birding
- \*I-70 Central Cover Park, 47th & York Pedestrian Bridge Tour and Heron Pond Open Space Carpio-Sanguinette Park

**END OF DAY 3**



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\* indicates a virtual presentation

**Room assignments and presentation sequence to be announced closer to event.**

## THURSDAY, MAY 15

### 9:00 AM (MDT) **Technical Sessions 29, 30, 21, & 32; Panel 8 & 9; and Lightning Session 5**

- Panel 8: Leveraging training for a culture of conservation in transportation
- Lightning Session 5 (39, 49, 108, 145, 162, 206, 249, 271, 279)
- Session 29: (Team)Work zone ahead – How interagency collaborations are endeavoring to improve our understanding of how bats and bat habitat are connected to transportation Infrastructure (54, 74, 78, 97, 116, 211, 235, 258)
- Session 30: Planning for climate-informed wildlife crossings (\*56, 110, 115)
- Session 31: Conversations on conservation collaboration (151, 156, 176, 240)
- Session 32: Wildlife spatial ecology and road systems (90, 107, 168, 276)

### 10:30 AM (MDT) **Break** 20 minutes

### 10:50 AM (MDT) **Technical Sessions 29 (Cont.), 34, 35, & 36 and Panel 9 & 10**

- Panel 9: Wildlife connectivity Projects and natural resource assessments
- Panel 10: The Bipartisan Infrastructure Law - A watershed moment for aquatic organism passage
- Session 29 Collaborations are endeavoring to improve our understanding of how bats and bat habitat are connected to transportation infrastructure (Continued)
- Session 34: California dreamin': Wildlife crossing planning (47, 167, 233, 278)
- Session 35: Restoration can be fun-guys (113, \*173, \*209, \*213)
- Session 36: Making way for moving mammals (A nod to Norris) (188, 245, 274, 284)



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\* indicates a virtual presentation

**Room assignments and presentation sequence to be announced closer to event.**

## THURSDAY, MAY 15 CONTINUED

**12:20 PM (MDT)** **Plenary Wrap-Up and Introduction to ICOET 2027**  
Details to come closer to conference

**END OF CONFERENCE**

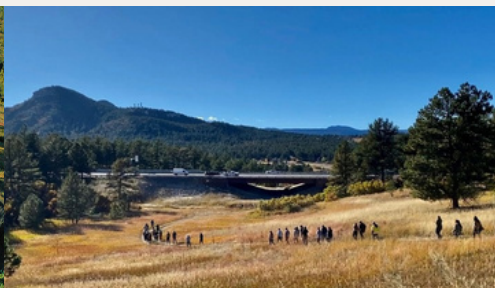


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US 160 Wildlife Overpass



I-25 Wildlife Underpass



CO 9 Wildlife Overpass

# CDOT's Bridging Divides Through Collaboration

"Connecting the little pieces to to make a big difference!" - The Colorado Department of Transportation



Kristin Salamack, USFWS/CDOT  
Arach-No-phobia: Perspectives and results from a unique, collaborative study of tarantulas in southeast Colorado. Join CDOT at the panel presentation to discuss the study of tarantula movements in southeast Colorado.



Mark Lawler, CDOT

CDOT's lynx in-lieu fee fund: Colorado's Department of Transportation has developed an approach that gives them the option to pool funds to mitigate impacts for Canada lynx.

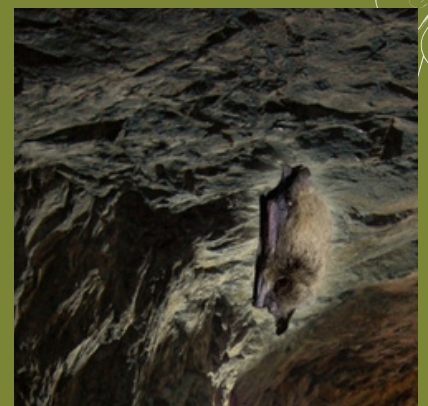


Chuck Attardo CDOT

Connecting Colorado: How Colorado Used a Statewide Prioritization Process to Implement Wildlife Mitigation Projects: I-25/Greenland Wildlife Overpass - Success Isn't Comfortable



Francesca Tordonato, CDOT  
Feasibility of Composting as an Alternative Disposal Method for Wildlife Vehicle Collision-Induced Carcasses within Colorado Department of Transportation Processes.



Jason Roth & Anne Hoffman, CDOT

Understanding Bat Use of CDOT Structures: Two species of bats (tricolored and little brown) are proposed to soon be protected by the Endangered Species Act. Learn about Colorado's research to aid the challenges posed by this lack of existing data.

Explore the 2025 ICOET Program for a full list of presentation times and details.



Colorado Parks & Wildlife



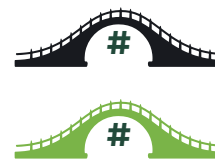
COLORADO  
Department of Transportation



Colorado Wildlife Transportation Alliance

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Exploring wildlife crossing effectiveness on the N4 Toll Route (TRAC N4), Gauteng Province, South Africa**

Thabo Innocent Hlatshwayo (Centre for Functional Biodiversity, School of Life Sciences, University of KwaZulu-Natal; Endangered Wildlife Trust), Manqoba Moses Zungu, Wendy Jane Collinson-Jonker, Colleen T Downs



## **Effects of public roads on wildlife-vehicle collisions in Hluhluwe-iMfolozi Park and iSimangaliso Wetland Park in KwaZulu-Natal, South Africa**

Cameron T. Cormac (Centre for Functional Biodiversity, School of Life Sciences, University of KwaZulu-Natal), Colleen T. Downs, Wendy Collinson, Cormac Price, Jarryd P. Streicher, Dave J. Druce



## **The influence of anthrophony on use of wildlife crossing structures built for ocelots in Texas**

Thomas J. Yamashita (Caesar Kleberg Wildlife Research Institute, Texas A&M University), Ashley M. Tanner, Evan P. Tanner, Daniel G. Scognamillo, Michael E. Tewes, John H. Young Jr., Jason V. Lombardi



## **Failure probability curves for road cut slopes considering the effect of water erosion and variability in the rainfall pattern**

Manuel Contreras-Jara (Department of Construction Engineering and Management, Pontificia Universidad Católica de Chile; Research Center for Integrated Disaster Risk Management), Esteban Sáez, Alondra Chamorro Gine, Carlos Bonilla, Jorge Gironas, Tomás Echaveguren, Eduardo Arancibia-Ruiz



## **Predicting Wildlife Use of Existing Highway Bridges and Culverts**

Noah Thoron (University of California, Davis), David P Waetjen, Fraser Shilling



## **eDNA Surveys for Bridge-Roosting Bats**

Daniel Fisher (Rutgers University), MacKenzie Hall, Brooke Maslo, Robert Kwait, Erin McHale, Morgan Mark, Kathleen Kerwin



## **Estimating Total Roadkill Rate for a US State**

Alice Michel (University of California Davis), David Waetjen, Chloe Schaecher, Fraser Shilling



## **To What Extent Have the Mandates of Transportation Agencies Improved Regarding the Consideration of Biodiversity? An International Comparison.**

Sabrina Mruzek (Concordia University), Jochen A.G. Jaeger



## **Median Treatment May Impact Wildlife-Vehicle Collisions on California Highways**

Lorna Haworth (UC Davis Road Ecology Center), Ben Hodgson, Leo Hecht, Ash Henderson, Laura Morris, Shannon Lemieux, Michelle See, Fraser Shilling



## **Body condition index of small mammals as an indicator of habitat quality of wildlife crossing structures**

Lindsay Millward (Oregon State University), Kristina Ernest

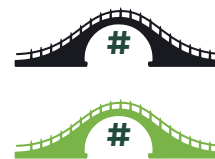


## **Small Mammal Perception of Risk on Wildlife Crossing Structures**

Sarah Sanz (Central Washington University), Kris Ernest

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Computer Vision Automation of Wildlife Monitoring on WSDOT's I-90 Snoqualmie Pass East Project**

Vedant Srinivas (Stanford University), Fraser Shilling, Mark Norman, Josh Zylstra



## **Predicting species assemblages at wildlife crossing structures using multivariate regression of principal coordinates: implications for ocelots in the U.S.A.**

Thomas J. Yamashita (Caesar Kleberg Wildlife Research Institute, Texas A&M University), Daniel G. Scognamillo, Kevin W. Ryer, Richard J. Kline, Michael E. Tewes, John H. Young Jr., Jason V. Lombardi



## **Scale sensitivity of two habitat generalists with applications**

Matthew Roos (SUNY ESF, Department of Environmental Biology), H. Brian Underwood



## **Hypernature for Iowa's Rail-Trail Corridors: a typology of enhancements for linear infrastructure in the Corn Belt**

Sumaiya Binte Azad (Iowa State University), Austin Dunn, Katharine Shiffler



## **State Route 152 Pacheco Pass: Working Together for the Benefit of Wildlife**

Julie King (Santa Clara Valley Habitat Agency)



## **Identifying Road Encounter Hotspots of Blanding's Turtle Using Sparse, Unsystematically Collected Data and Behavioral Modeling**

Tom Langen (Clarkson University), Sean Jackson, Alexandra Burrows, Glenn Johnson



## **A Unique Solution to Stormwater Challenges. Part of Session: No Bank, No Problem: An Almost Comprehensive Review of FDOT Alternative Mitigation Strategies for Wildlife and Resiliency.**

Casey Lyon (Florida Department of Transportation)



## **Testing the effectiveness of wildlife fences for arboreal mammals**

Edgar van der Grift (Wageningen University and Research), Nina Villing, Hugh Jansman, Margreet Laar



## **Multi-disciplinary Design for Habitat Connectivity in the Wildland-Urban Interface of Los Angeles County**

Clark Stevens (Resource Conservation District of the Santa Monica Mountains)



## **Act Locally: Integrating Wildlife Crossings and Connectivity into Municipal and County Plans and Policies in the United States: Examples, Case Studies, and Recommendations**

Kylie Paul (Center for Large Landscape Conservation), Nic Callero, Julia Kintsch, Michelle Cowardin, Michael Dax, Kasey Lindstrom, Daniel Estes



## **Programmatic Consultation for the American Burying Beetle for Nebraska Department of Transportation Projects**

Jessica Jurzenski PhD (Felsburg Holt & Ullevig), Jeff Hartman PhD, Ben Trenne, Matt Greiner, Justin Luther, Luke Pitts, Brian Yanchik, Charlotte Kucera



## **Statewide Modeling of Traffic Illumination of Surrounding Habitat**

Ben Hodgson (UC Davis Road Ecology Center), David Waetjen, Fraser Shilling

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number



Green Denotes Student Presentation



## **They can't all swim. Identifying where to you help wildlife get across 300 miles of the California Aqueduct?**

Brock Ortega (Dudek), Shelly Amrhein, Valerie Goodwin, Mike Howard, Mike Henry PhD, Anna Cassady, Alexandria Reed, Lorna Haworth, Autumn Iverson



## **The Bat Mitigation and Monitoring Plan: A Collaborative Approach to Improving Bat Mitigation Outcomes**

Jill Carpenter (LSA Associates)



## **Under the Spans: Investigating bridge use by bats in Wyoming**

Riley Bernard (Department of Zoology & Physiology, University of Wyoming), Logan Detweiler, Riley Fehr Bernard, Logan William Detweiler, Joshua Franklin Layfield



## **Modeling climate-driven changes in wildlife movement to inform crossing structure locations that support connectivity now and in the future**

Justin P. Suraci (Conservation Science Partners, Inc.), Caitlin E. Littlefield, Patrick T. Freeman, L. Mae Lacey, Julia Kintsch, Matthew Skroch, Nova Simpson, Nicholas Callero, Nathan Jones, Mark Traxler



## **Interagency cooperation for large-scale broadband infrastructure projects in existing transportation corridors: lessons learned from the California Middle-Mile Broadband Network**

David L. Sherer U.(S. Fish and Wildlife Service), Colleen Draguesku, Jennifer Osmondson, Tierra Groff, Jeanette Mar



## **Gaviota Pass Wildlife Connectivity and Vehicle Collision Reduction Project: California's First Wildlife Crossings Pilot Program Grant**

Morgan Robertson (Caltrans District 5), Shannon Crossen, Larissa Clarke, Alexandra Thiel, Mitch Dallas



## **Canopy bridge design: Emerging recommendations from a growing body of literature**

Tremaine Gregory (World Wildlife Fund, US; Smithsonian's National Zoo and Conservation Biology Institute), Fernanda Delborgo Abra, Fernanda Z. Teixeira, Birthe Linden, Kylie Soanes, Anna Nekaris, Pamela M.K. Cunneyworth, Inés Azofeifa Rojas, Gabriella da Costa Pereira, Farah Carrasco-Rueda, Gabriella de Costa Pereira, Thais Morcatty



## **A global review of canopy bridges studies as a tool to mitigate habitat fragmentation**

Fernanda Z. Teixeira (Center for Large Landscape Conservation (CLLC)), Fernanda Delborgo Abra, Tremaine Gregory, Birthe Linden, Kylie Soanes, Anna Nekaris, Inés Azofeifa Rojas, Gabriella da Costa Pereira, Farah Carrasco Rueda, Thais Queiroz Morcatti



## **Primary arteries are obstacles to mountain lion recolonization of eastern North America, as predicted by an individual-based model**

Mark Elbroch (Panthera), Thomas W. Glass, Richard Beausoleil, Brian N. Kertson, Benjamin T. Maletzke, Quinton Martins, Marc R. Matchett, T. Winston Vickers, Christopher C. Wilmers, Heiko U. Wittmer, Hugh Robinson



# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number



Green Denotes Student Presentation



## **Climate Change Projections for Fluvial Hazards along the Northeast Entrance Road Corridor in Yellowstone National Park, WY.**

Thomas C. Walsh, PhD, PE (Jacobs), Tyler Jantzen



## **Collaborative National Inventory of Wildlife Underpasses on Costa Rican Roads**

Daniela Araya-Gambo (PANTHERA), Yosette Araya-Jimenez, Andrea Avila-Alfaro, Esther Pomareda García, Esmeralda Arevalo Huezo, Katia Castro del Valle, Angie Sánchez Nuñez, Karina Rodriguez Saenz, Silvio Boyat, Andrea Induni Vizcaini, Anthony Gomez Portugues, Einer Reyes Martinez, Alejandra Mendez Baez



## **Connecting people to connect wildlife: A case study from Coyote Valley, CA**

Taylor Jang (Peninsula Open Space Trust), Marian Vernon



## **Building Regional Connectivity for the Santa Cruz Mountains through Collaboration**

Bryan Largay (Land Trust of Santa Cruz County), Tanya Diamond, Morgan Robertson



## **Habitat selection and connectivity of mountain lions (Puma concolor) across anthropogenic barriers on the Olympic Peninsula: a multi-method comparison**

Read Barbee (Panthera)



## **Detection of Listed Bat Species Under Bridges Through the Use of Fecal DNA**

Faith M. Walker (Species from Feces Lab, Northern Arizona University), Cory Olson, Susan Dulc, Heather Gates, Cori L. Lausen, Erin Low, Daniel E. Sanchez



## **Stream Design, Living in a Digital World**

Nich VanBuecken (Jacobs), Ben Dupuy



## **FDOT Sunshine Skyway Wave Attenuating Devices (Part of Session - No Bank, No Problem: An Almost Comprehensive Review of FDOT Alternative Mitigation Strategies for Wildlife and Resiliency)**

Nicole Monies (Florida Department of Transportation (FDOT))



## **Understanding Bat Use of CDOT Structures**

Jason Roth (Colorado Department of Transportation), Anne Hoffman, Grey Buttner, Vanessa Santistevan, Dalton Kidder, Kristin Salamack, Sara BarnasT, Conner Denton, Erik Schmude, Summer Slama, Jeff Peterson



## **Experience of Implementing the Wildlife Friendly Roads Toolbox for ten years in Costa Rica**

Esther Pomareda García (Vías Amigables con la Vida Silvestre-Centro de Rescate Las Pumas), Esmeralda Arévalo Huezo, Daniela Araya Gamboa, Yocelin Ríos Montero, Rosemarie Menacho Odio, Cristina Aguilar Ruiz

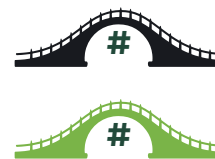


## **Aligning Vision and Tactics to Salvage Florida's Wildlife Corridor (also Part 1 of Partnerships Connecting the Florida Wildlife Corridor)**

Jason Lauritsen (Florida Wildlife Corridor Foundation)

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Establishing Least Cost Corridors for Safe Passage of *Ursus americanus* across Interstate 40 in the Pigeon River Gorge, North Carolina, USA.**

Aurora Wynne (National Parks Conservation Association), Liesl Erb, Steve Goodman



## **Revisiting US 64 in Eastern North Carolina (ICOET 2015), A Different Approach to Implementing Wildlife Crossings in this Important Landscape**

Travis Wilson (North Carolina Wildlife Resources Commission)



## **Corridors and Conservation Strategies in Florida – A USFWS Perspective**

Mark Cantrell (US Fish and Wildlife Service)



## **US-Mexico border wall impedes wildlife movement**

Eamon Harrity (Sky Island Alliance), Myles Traphagen, Dr. Aaron Facka, Meagan Bethel, Emily Burns, Michael Dax



## **The multi-scale complexities of wildlife movement: workflows for siting crossing structures using GPS collars and related data**

Christina M. Aiello (Oregon State University Department of Fisheries, Wildlife, and Conservation Sciences), Janene Colby, Paige R. Prentice, Nathan Galloway, Sahar Sadeqh Malak, Clinton W. Epps, Fraser M. Shilling



## **The East Bay Wildlife Connectivity Project: How to get pumas (and prey) through three VERY BUSY California highways**

Courtney Coon (Alameda County Resource Conservation District), Farley Connelly, Fraser Shilling, Brock Ortega, Sasha Dansky



## **Unbroken from Canada to Mexico: Is Interstate 5 a Continental Barrier to Wildlife?**

Shannon Lemieux (University of California, Davis Road Ecology Center), Laura Morris, Jay Chen, Madison Morgan, Cierra Kelly, Ben Hodgson, Leo Hecht, Fraser Shilling



## **Predicting Bat Roosts in Bridges using Bayesian Additive Regression Trees**

Amy Wray (Fort Collins Science Center, USGS), Jacob Oram, Helen Davis, Luz de Wit, Winifred Frick, Andrew Hoegh, Kathryn Irvine, Patrick Pollock, Andrea Schuhmann, Frank Tousley, Brian Reichert



## **SR A1A Hurricane Response**

Zakia Williams (US Fish and Wildlife Service Florida Ecological Services)



## **In-Stream Ecological Drivers and Impacts of Uncertain Future Hydrological Regimes along the Northeast Entrance Road Corridor in Yellowstone National Park, WY**

Karen Williams, PhD (Jacobs)



## **Tait Station Dam Removal - An Innovative Approach to Ecological Lift**

Joel Thrash (Stantec), Matt Perlik



## **FDOT Pile Bridge Wildlife Crossings**

Brent Setchell (Florida Department of Transportation)

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number



Green Denotes Student Presentation



**Tackling large challenges by harnessing the power of collaboration from science to implementation: An overview of how a an individual became multiple coalitions focused on getting wildlife crossing structures on I-5 in Washington State**

Brian Stewart (Conservation Northwest)



**Planning and monitoring canopy bridges for an endangered primate in southern Brazil: enhancing connectivity for arboreal mammals**

Larissa Oliveira Gonçalves (Systematics and Ecology Lab, Federal University of Rio Grande do Sul), Júlia Beduschi, Talita Menger, Caroline Zank, Andreas Kindel



**Developing a Caltrans-approved wildlife fencing attachment for guardrail systems to reduce road mortality and provide habitat connectivity for reptiles, amphibians, and small mammals**

Steve Béga (Animex International), Alexandra Thiel



**Advancing ecological connectivity, human safety, and wildlife conservation in the Gateway to Yellowstone**

Liz Fairbank (Center for Large Landscape Conservation), Abigail Breuer, Marcel Huijser



**Prioritizing Wildlife Crossing Locations Across Nevada's State Highway System**

Nathan Jones (HDR), Julia Kintsch, Nova Simpson, Tanya Diamond, Mark Traxler, Juan Garcia



**Exploring Nature Based Solutions for Resilience at Virginia DOT**

Anna Salzberg (VDOT) and Kelsey Czyzyk (ICF)



**The missing link in state wildlife crossing prioritization processes**

Nicholas Callero (The Pew Charitable Trusts), Nathan Jones, Justin Suraci, Julia Kintsch



**Georgia's Bat Programmatic Agreement & Lessons Learned Through Collaboration and Implementation**

Ryan Pawlikowski (Georgia Department of Transportation), Morgan Niccoli



**Bridging the Great Sonoran Desert Divide: Cooperative Partnerships to Protect Connectivity for Wildlife in the Tucson-Tortolita Mountain Wildlife Linkage in Tucson, Arizona**

Jessica Moreno (Coalition for Sonoran Desert Protection)



**What makes a good wildlife fence? An exploration into implementing and maintaining an effective wildlife exclusion and safe passage project**

Steve Bega (Animex International), Steve Mars, Kari Gunson

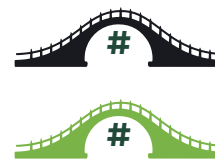


**Medium to large mammal use of wildlife crossing structures in the I-90 Snoqualmie Pass East Project**

Alison Scoville (Central Washington University), Mark Norman, Josh Zylstra, Glen Kalisz

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Sharing Knowledge of Wildlife-Vehicle Conflict in a Planning Tool to Foster Collaboration**

Will Thoman (Idaho Transportation Department), Patricia Cramer, Julie Hausknecht



## **Wildlife crossings: Paving the way to sustainable development - A case study from India**

Lalit Kumar Sharma (Zoological Survey Of India, Kolkata Hq), Saurav Bhattacharjee



## **Predicting Florida Panther Movements and Potential Road Crossing Locations within South-Central Florida (2023)**

Daniel J. Smith (Center for Landscape Conservation Planning, University of Florida)



## **Turning Lemons into Lemonade: Breaking Organizational Silos to Increase Wildlife Crossing Planning in the United States National Park Service**

Hanem Abouelezz (NPS Washington Support Office (WASO)), Kristy Boscheinen, Michael Mencarini



## **The LACTWG: crossing borders for environmentally sustainable transport infrastructure in Latin America**

Fernanda Z. Teixeira (Center for Large Landscape Conservation (CLLC)), Larissa Oliveira Gonçalves, Talita Menger, Júlia Beduschi, Daniela Araya Gamboa, Esther Pomareda García, Esmeralda Arevalo Huezo, Diego Varela, Clara Grilo, Anthony Clevenger, Juan Carlos Jaramillo Fayad, Victor Colino Rabanal



## **It's Time for Younger Hands to Lead: YoPro, A Young Professionals Youth Workforce Development STEM Program in Brunswick, Georgia, USA**

Kimberly Andrews (University of Georgia), Shawn Williams, Ray Daniels, Layla Davis, Andrew Mooring, Chayse Swinson, Athena West, Fraser Shilling



## **Effectiveness of Amphibian and Reptile Road Crossing Systems: Research, Literature Review and Meta-analysis**

Cheryl Brehme (USGS Western Ecological Research Center), Robert Fisher



## **Multiple Turnarounds Increase the Probability that Migrating Salamanders Reach a Passage System in Stanford, CA, USA**

Brittany Ewing (USGS), Cheryl Brehme, Michael Hobbs, Esther Cole Adelsheim, Robert Fisher



## **Interstate Collaboration - Colorado/New Mexico I-25 Raton Pass**

James Hirsch (New Mexico Department of Transportation), Gabriel Cosyleon



## **Confirming high levels of wildlife roadkill in baseline surveys on US Highway 64, North Carolina, USA**

Ron Sutherland (Wildlands Network), Alexandra Blunt, Ashwin Narayanan



## **Methods to Assess Ecological Lift Associated with Wildlife Connectivity Actions**

Sadie McGarvey (Integral Consulting Inc.)

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number



Green Denotes Student Presentation



**Delivering a landscape scale connectivity strategy for threatened species on a coastal motorway, investigating overall success through the analysis of operational monitoring data**

Chris Thomson (Jacobs Australia), Scott Lawrence, Dr David Rohweder



**The long and winding road: lessons from project planning and implementation in Wyoming**

Corinna Riginos (The Nature Conservancy), Jill Randall, Chris McBarnes, Hall Sawyer, Tom Hart



**A New & Substantial Project Acceleration Method at No Additional Cost – Strategic use of Planning and Environmental Linkages (PEL) by State DOTs and MPOs**

Ted Devens (Stantec Consulting, Inc.), Theresa Maahs



**After the Crossing: Protecting land and incorporating a land back philosophy in order to protect wildlife pathways that lead to crossing structures**

Brian Stewart (Conservation Northwest)



**Using an automated radio-tracking system as a novel approach to the landscape scale assessment and monitoring of bats on a UK based linear infrastructure project**

Chris Kerfoot (Jacobs UK), Charlotte Wevill



**Bee-ing Social: Using Social Science to Bridge the Gap Between People, Roadsides, and Biodiversity**

Laura A. Warner (University of Florida), Cody Gusto, Sravani Pasula, Jaret Daniels, Anissa Mattox, Sydney Honeycutt, Ricky Telg, Angie Lindsey



**Mitigating the roadkill of raptors along a section of the N3 highway through the use of raptor perches, South Africa**

Thabo Innocent Hlatshwayo (University of KwaZulu-Natal, Endangered Wildlife Trust), Manqoba Moses Zungu, Wendy Jane Collinson-Jonker, Colleen T Downs



**Sir Francis Drake Boulevard Road Improvement Project: A Collaboration and Mitigation Success Story**

Timberley Belish (Federal Highway Administration Eastern Federal Lands Highway Division), Tamara Burke



**Incorporating Resilient Design for Present and Future Hazards along the Northeast Entrance Road Corridor in Yellowstone National Park, WY: Lessons Learned**

Jeff Dobmeier (Jacobs)

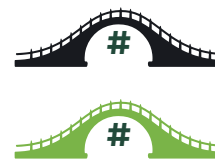


**A Novel Population Viability Analysis to Evaluate Road Mitigation Designs**

Philip Gould (USGS Western Ecological Research Center), Cheryl Brehme, Merav Vonshak, Robert Fisher

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Use of road underpasses by timber rattlesnake (*Crotalus horridus*) and other species of conservation concern point towards an effective design for further implementation in Southern Appalachia**

Liz Hillard (Wildlands Network), John Sealy, Sarah McMullen, Kevin Bischof



## **Fifteen Years of the Largest US WVC Reporting System: the California Roadkill Observation System**

Dave Waetjen (UC Davis Road Ecology Center), Fraser Shilling



## **A multi-tiered assessment of wildlife-vehicle collision risk to inform mitigation**

Amy Villamagna, Ph.D. (Plymouth State University), Clara Dawson, Remington Moll, Rebecca Martin, Eric Laflamme, Hyun Joong Kim



## **Strategies for valuing and restoring ecosystem services of roadside vegetation following large-scale clearing**

Dr. Ellen Oettinger White (State University of New York College of Environmental Science and Forestry), Dr. Marcia S. Meixler



## **I-25 Highway Improvement Project Use of Process Based Restoration Techniques to Provide Wildlife Habitat Connectivity and Mitigation for Federally Threatened Species**

Patrick Hickey (Jacobs Engineering Restoration Ecologist), Francesca Tordonato



## **A Win-Win Collaboration: Transportation Liaisons Streamlining ESA Section 7 Consultations**

Jennifer Lang (Washington State Department of Transportation), Michelle Meade



## **The Reconecta Project: Projeto Reconecta: Bridging the Amazon for the Conservation of Endangered Primates**

Fernanda D. Abra (Smithsonian's National Zoo and Conservation Biology Institute (NZCBI)), Tremaine Gregory, Alfonso Alonso, Marcel Huijser, Marcelo Gordo



## **Coalition of women assist Costa Rica to build wildlife-friendly roads**

Daniela Araya Gamboa (PANTHERA), Esther Pomareda García, Esmeralda Arévalo Huevo, Andrea Ávila Alfaro, Angie Sánchez Nuñez, Karina Rodríguez Saenz, Marcela Sudasassi Vargas, Grettel Delgadillo Molina, Shirley Ramirez Carvajal, Ana Lucía Orozco Rubio, Susana Gutiérrez Acuña, Katya Barrantes Salas



## **Roadkill-Induced Extirpation of Largest Known Population of Pacific Newts (*Taricha spp*) Requires Emergency Response**

Shannon Lemieux (University of California Davis Road Ecology Center), Madison Morgan, Laura Morris, Selena Cao, Fraser Shilling



## **6PPD-Quinone: Responding to an Emerging Contaminant**

Jana Crawford (Jacobs)

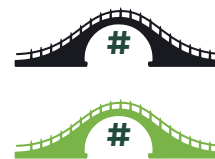


## **Ten years of experience supporting the development of road ecology public policies in Brazil**

Larissa O. Gonçalves (Universidade Federal do Rio Grande do Sul), Fernanda Z. Teixeira, Talita Menger, Júlia Beduschi, Caroline Zank, Bibiana Terra Dasoler, Andreas Kindel

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## Using tracking data and actionable maps to guide linear infrastructure development for migratory ungulates worldwide

Matthew Kauffman (USGS), Thomas Mueller, Janey Fugate, Melinda Boyers, Buuveibaatar Bayarbaatar, Francesca Cagnacci, Simon Chamaille-Jammes, Nandia Dejid, Elie Gurarie, Grant Hopcraft, Kyle Joly, Petra Kaczensky, Steffen Mumme, Albert Salemgareyev, Wenjing Xu, Wibke Peters, Steffen Zuther, Tim Fullman



## Whitetail Whispers; North Idaho Wildlife Crossing Study

Daniel Baker (HDR), Mark Traxler



## CDOT's lynx in-lieu fee fund

Mark Lawler (Colorado Dept of Transportation)



## Feasibility of Composting as an Alternative Disposal Method for Wildlife Vehicle Collision-Induced Carcasses within Colorado Department of Transportation Processes

Francesca Tordonato (Colorado Department of Transportation)



## Buzzing down the highway: Understanding driver segments and their views on pollinator-friendly roadsides

Laura A. Warner (University of Florida), Sravani Pasula, Jaret Daniels



## No Bank, No Problem: An Almost Comprehensive Review of FDOT Alternative Mitigation Strategies for Wildlife and Resiliency - Wildlife Crossings

Jason Houck (Ardurra)



## Road to Recovery – How FDOT and USFWS have partnered to recover the endangered Florida Panther

Florida Department of Transportation



## To What Extent Are Rare Species Using ROW Habitats & What Can We Do for Them? GDOT's Program-wide Rare Species Field Verification Effort & Species-specific ROW Management Plan Development

Sujai Veeramachaneni (Georgia Department of Transportation), Carlee Steppe, Hannah Held, Laci Pattavina, James (Mincy) Moffett, Katrina Morris, Katie O'shields, Christopher Goodson



## Agency Partnerships and Tools for Streamlining Transportation Consultations

Laci Pattavina (US Fish and Wildlife Services), Eric Prowell, Ryan Pawlikowski, Chris Goodson



## Big crossings for little animals: The use of large crossing structures by amphibians and reptiles to cross I-90 in the Snoqualmie Pass area, WA, USA

Jason T. Irwin (Central Washington University)



## Studies of fungal communities in pre and post restoration of the I-90 Snoqualmie Pass East Project Wildlife Overcrossing

Helen Lau (US Forest Service Okanogan Wenatchee National Forest), Dr. Jim JohnsonThomas Luehl, Dana Whitmore

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Leveraging Data from Transportation Structure Surveys: How NABat is Supporting Collaborative Assessment and Monitoring of Transportation Structures**

Andrea Schuhmann (U.S. Geological Survey, Fort Collins Science Center, North American Bat Monitoring Program), Bethany Straw, Brian Reichert



## **There and Back Again; A Restoration Journey**

Kelly Evans (USFS)



## **Prioritization Methods for APHIS Monitoring of GDOT Bridges During Migratory Bird Nesting Season**

Carolyn Bryan (AECOM), Sharilyn Meyers, Ashlie Stone, Sujai Veeramachaneni



## **Northeastern US Habitats and Highways Training**

Alissa Fadden (The Nature Conservancy), Chris Slesar, Jens Hilke, Jed Merrow



## **Assessment and Prioritization of Road-Stream Crossings to Restore Aquatic Connectivity**

Scott Jackson (University of Massachusetts Amherst), Kat Hoenke



## **Landscape connectivity and spatial ecology for an endangered carnivore: how ocelots move near transportation infrastructure**

Sean Kiernan (Caesar Kleberg Wildlife Research Institute, Texas A&M-Kingsville), John Young, Michael Tewes, Trevor Black, Emma Brookover, Elizabeth Grunwald, Tom Langschieid, Daniel Scognamillo, William Stephens, Jack Towson, Hunter Vasquez, Thomas Yamashita



## **Use of the Palmiter Stream Management Technique to Maintain Transportation Infrastructure**

Matthew Perlik (Ohio DOT)



## **Colorado wildlife mitigation and collaborative Context Sensitive Solutions on the I-70 Mountain Corridor as part of the Programmatic Environmental Impacts Statement, highlighting the process for Vail Pass**

John W. Kronholm (Colorado Department of Transportation),



## **Collaborating for Connectivity: Multi-Agency Efforts to Remediate Barriers to Wildlife Movement in the Tehachapi Linkage in California**

Katie Rodriguez (Caltrans), Trish Smith



## **Filling the Gap - Bat Exclusions on Bridges Prior to Demolition**

Meghan Lind (Stantec Consulting Services Inc.), Liza Colucci, Tracy White



## **Conserving land, conserving miles: conservation's role in reducing Vehicle Miles Traveled**

Liz O'Donoghue (The Nature Conservancy), Mary Rose Fissinger



## **A Range-wide Approach to Bat Consultation for Routine Transportation Projects**

Sumalee Hoskin (U.S. Fish and Wildlife Service), Catherine Liller, Karen Hallberg, Robin McWilliams, Dan Buford, Charlotte Kucera, Brian Yanchik



# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number



Green Denotes Student Presentation



**Hot Take: Thermal videography can play a critical role in documenting wildlife species demographics and vitality in the face of a major habitat barrier in the Green Mountain State**

Melinda Squillace (Hoyle, Tanner and Associates, Inc.), Brogan Morton, Glenn Gingras, Jon Olin, Hoyle, Kelly LaVigne



**Advancing Wildlife Connectivity Efforts in Virginia with Bipartisan Infrastructure Law Discretionary Grant Funding**

Amy Golden (Virginia Department of Transportation), Bridget Donaldson



**Navigating the Environmental Challenges during Design and Construction of the Vulture Mountains Recreation Area**

Marinela Papa (Maricopa County Department of Transportation), Sabra McNeish



**The California Wildlife Conservation Board's Wildlife Corridor Program**

Don Crocker (Wildlife Conservation Board)



**A Streamlined Approach to Aquatic Species Consultation on Transportation Projects in Georgia**

Matt Carroll (Georgia Dept of Transportation), Morgan Niccoli, Eric Prowell, Chris Goodson, Laci Pattavina, Melissa Rottenberg



**Use of GPS Collar Data to plan and prioritize wildlife crossing projects in Wyoming: A Case Study of the Carter Mountain Pronghorn Herd**

Jill Randall (Wyoming Game and Fish Department), Hall Sawyer, Sam Stephens, Corey Class



**Finding evidence of a 70 years old road effect on wildlife at a Complex of Protected Areas, Costa Rica**

Daniela Araya-Gamboa (PANTHERA), Roberto Salom Pérez, Yosette Araya Jiménez, Deiver Espinoza-Muñoz, Erika Faubion, Jeremy Quirós-Navarro, Eladio Salazar, Jeffrey Flores Rojas, Kendall Calderón Navarro



**Collaborative Strategies for Wildlife Connectivity: Integrating Partnerships, Planning, and Policy in Linear Infrastructure and Urban Development in Utah County**

Bettina Cameron (Eagle Mountain Nature and Wildlife Alliance), Wendy Warren



**Changes in Future Hydrological Regimes along the Northeast Entrance Road Corridor in Yellowstone National Park, WY**

Craig Baxter (Jacobs)



**Building Bridges for Connectivity: CDFW's Efforts and the Impact of AB 2344**

Juan Torres (CDFW)

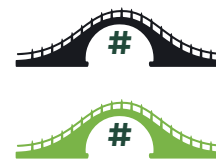


**Living on the edge of the range: time-use metrics of non-traditional hibernacula on the southern edge of a small hibernator**

Nathan W. Fuller (US Fish and Wildlife Service), Leah N. Crowley, Samantha Leivers, Catherine G. Haase

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract Number  
Green Denotes Student Presentation



## **Evaluating Ecological Inputs and Engineering Design to Improve Wildlife Connectivity**

Sasha Dansky (Mark Thomas & Company)



## **What are the critical challenges when a Road Agency fails to implement their own environmental policy?**

Josie Stokes (City of Gold Coast Council)



## **An Association of Fish Aand Wildlife Agencies Resolution for B.A.T.S. (Bats and Transportation Structures) Promoting Cooperation With State Transportation Agencies**

Trina Morris (Georgia Department of Natural Resources), Leanne Burns



## **Data-based Design – Building Diamondback Terrapin Barriers and Nesting Habitat into Road Construction**

Kimberly M. Andrews (University of Georgia), Abbey C. Crossman, Chris Goodson



## **Assessing the Impact of Linear Infrastructure-Induced Habitat Fragmentation on the Diversity, and richness of Urban Bird Populations: A Case Study in Chattisgarh, India**

ANAM AHSAN (University of Missouri)



## **Developing Transportation Priorities for the Washington Habitat Connectivity Action Plan**

Glen Kalisz (Washington State Department of Transportation), Patty Cramer



## **This is Water: Integrating Ecological Connectivity and Conservation into Water Infrastructure Planning and Design**

Shannon Crossen (Jacobs), Craig Broadhead, David Allison



## **Minimizing Railway Construction Impacts to Asian Elephants and other Wildlife with a Comprehensive Mitigation Strategy in Bangladesh: From Planning to Post-Construction Effectiveness Monitoring**

Norris L. Dodd (Consultant to Asian Development Bank), Asif Imran, Karma Yangzon



## **Planning Wildlife Crossings at the State Scale Using Spatially Explicit Decision Support**

Fraser Shilling (Road Ecology Center, UC Davis)



## **The utility and limitations of mark recapture models in evaluating crossing structure use**

Ross Hinderer (University of Montana), Hannah Specht, Joshua J. Millspaugh, Thomas Hart, Scott Gamo

# PODIUM PRESENTATIONS

See Daily Schedule for Time Slot



# = Abstract  
Number  
Green Denotes  
Student  
Presentation



## **Wildlife Crossing Planning Tool / CROS Plan**

Dave Waetjen (Road Ecology Center, UC Davis), Fraser Shilling



## **Technological solutions for reducing wildlife-vehicle collisions: A framework to develop, test, and apply new solutions**

Tahlia Townsend (WSP Australia), Rodney van der Ree



## **Resiliency in the Face of Adversity: a Tale of Climate Change, Infrastructure, Ecological Mitigation and Collaboration**

Rick Black (SLR International)



## **Utah's Migration Initiative and Inter-Agency Partnership Implications**

Makeda Hanson (Utah Division of Wildlife Resources), Matt Howard

The Pew Charitable Trusts works to conserve wildlife corridors and promote wildlife crossings throughout the United States.

Pew



[pewtrusts.org/ICOET2025](https://pewtrusts.org/ICOET2025)

# Our purpose is to create a more connected, sustainable world.

We're setting the standard for fish and wildlife crossings and nature-positive solutions with an interdisciplinary team of ecological connectivity experts. We've successfully delivered hundreds of projects that reconnect fish and wildlife habitat, improve road safety, and prevent wildlife-vehicle collisions.

**We're shaping a greener, more sustainable tomorrow.**



*Jacobs is proud of the work we have done to support the WSDOT Snoqualmie Pass East Project. Photo provided by Washington Department of Transportation.*

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# Jacobs

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# LIGHTNING PRESENTATIONS

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## **Spatiotemporal assessment of elk movement across a major highway**

Brielle Jaglowski (Cal Poly Humboldt), Micaela Szykman Gunther, Carrington Hilson



## **Wildlife-friendly National Route 253. Guanacaste, Costa Rica**

Esmeralda Arévalo Huevo (Universidad Latina de Costa Rica), Esther Pomareda García, Daniela Araya Gamboa



## **Patterns of Population Structure and Gene Flow in a Fragmented Environment: How Road Infrastructure Impacts Bobcat and Ocelot Dispersal**

Jack Towson (Texas A&M University - Kingsville, CKWRI), John Young, Trevor Black, Trevor Black, Emma Brookover, Elizabeth Grunwald, Thomas Landschied, Sean Kiernan, Daniel Scognamillo, William Stephens, Hunter Vasquez, Thomas Yamashita, Michael Tewes



## **An investigation into the fracturing of asphalt pavement surfaces using Daikon radishes**

Prince Aminu (University of Delaware), Haritha Malladi, Daniel Feinberg



## **Connectivity at a Crossroads: Evaluating Urban Green Spaces and Linear Infrastructure Effects on Tiger Conservation for Bhopal city, MP, India**

Anam Ahsan (University of Missouri), DP Srivastava, Dr BS Adhikari, Dr Shekhar Kolipaka



## **Turtles and The Railway: A Simple Solution for Rail Mortality of Turtles and other Herps.**

Jessie Johnson (VTrans)



## **Breaking Barriers: Protecting Wildlife Through Community-Driven Barbed Wire Removal**

Christie Greene (Wild Aware), Sara Barnas, Einar Jensen



## **Interagency Collaboration for Wildlife Connectivity in the Northern Appalachians: An Assessment of Current Transportation Planning Actions and Future Opportunities**

Alissa Fadden (The Nature Conservancy), Renee Callahan, Marta Brocki



## **Integrating science and real data into a community-based conservation effort; managing for a mule deer migration route through Eagle Mountain City, Utah.**

Todd A. Black, B. Cameron, J.C. Seamons, S.M. Mumford



## **Identifying the best technology for detecting wildlife on roads and how this could help you.**

Steve Bega (Animex International), Gert Hamberg

# LIGHTNING PRESENTATIONS

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## **Restoring California's Wildlife Connectivity in Region 1**

Colton Wise (California Department of Fish and Wildlife), Angela Rehse



## **Collaborative Strategies for Corridor Conservation in Colorado**

Michelle Cowardin



## **Development and assessment of environmental DNA surveying for the federally endangered Salamander Mussel (*Simpsonia ambigua*)**

Christine Stahlman (Stantec Consulting), Nathaniel Marshall, Cody Fleece, Joel Thrash, Matt Perlik, Matthew Raymond



## **A Feasibility Study of Animal Detection and Driver Warning Systems to Mitigate Animal-Vehicle Conflicts on a Rural Highway in Southwest Virginia**

Roe (S. Bell) (Virginia Tech Transportation Institute), Tarah Crowder, Andrew S. Alden



## **Aquatic Organism Passage Solutions at Culverts Similar Structures**

Shane Scott (Principal Biologist)



## **Challenges when addressing connectivity issues with California's diverse habitat and wildlife**

Sara Holm (CA Department of Fish and Wildlife), Juan Torres, Angela Rehse, Sarah Estrella, Michael Sawaya, Skylar Feltman, Benjamin Carter



## **Structure Surveys for Bats: Emerging Trends in Frequency of Bat Use in North Carolina Bridges & Culverts**

Cheryl Knepp (North Carolina Department of Transportation)



## **Restoring California's Wildlife Connectivity, Regional Collaboration to a Statewide Issue.**

Colton Wise (California Department of Fish And Wildlife), Juan Torres, Angela Rehse, Sarah Estrella, Sara Holm, Michael Sawaya, Skylar Feltman, Benjamin Carter



## **Wild Cats on the roads of Costa Rica, 10 years of data**

Esther Pomareda García (Vías Amigables con la Vida Silvestre-Centro de Rescate Las Pumas), Daniela Araya Gamboa, Esmeralda Arevalo Huevo



## **Kentucky Transportation Cabinet - Wildlife Vehicle Collision Reduction Pilot Project**

Tony Miller (Lochner), Andrew Logsdon, Calvin Andries

# LIGHTNING PRESENTATIONS

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## **Evaluation of Environmental Measures for the Protection of Wildlife in Costa Rica's Road Network**

Daniela Araya-Gamboa (PANTHERA), Susana Gutiérrez Acuña, Fernanda Zimmermann Teixeira, Roberto Salom Pérez, Esther Pomareda García, Yosette Araya Jiménez, Erick Víquez Alvarado, Esmeralda Arévalo Huevo, Silvio Boyat, Jaime Quirós Calderón, Deiver Espinoza Muñoz, Manfred Herrera Díaz, Andrés Zúñiga Garita, Manuel Mairena Jiménez, Katherine Ulate Gómez, Mónica Chavez Ramos, Joseph Lacayo Castrillo, Katherine Chacón, Abigail Corao Retana, Jesús Vado Góngora, Esperanza Gonzalez Mahecha and Priscila Picado Valenzuela



## **Impact analysis of an Eco-geomorphological design on conventional minor culverts: A study in Northern Mexico.**

Armando Ponce de Leon Aldaco (Departamento de Ingenieria Civil, Universidad de Monterrey), Santos Sáenz Delgado, Camilo Cañón Barriga,



## **Reconnecting Floodplains Along the San Joaquin River, California**

Jeremy Thomas (Jacobs), Debra Bishop, Michael Founds



## **Road disturbance: Impact on groundwater flows and ecological integrity of boreal peatlands**

Ariane Bouffard (Ministry of Transport and Sustainable Mobility and University of Quebec at Montreal), Marie Larocque, Monique Poulin, Michelle Garneau, Jonathan Chabot-Grégoire, Mathieu Vaillancourt



## **Wild feline roadkill in Costa Rica**

Esther Pomareda García (Vías Amigables con la Vida Silvestre-Centro de Rescate Las Pumas), Daniela Araya Gamboa, Esmeralda Arevalo Huevo



## **Testing milkweed installation practices for augmentation and restoration along Florida's roadsides**

Chase B. Kimmel (Florida Museum of Natural History, University of Florida), Jaret C. Daniels, Ivone de Bem Oliveira, Kristin Rossetti



## **Strategies for reducing project-level environmental impacts: understanding different viewpoints on what is most important and feasible.**

Margaret Minzner (Ohio, Kentucky, Indiana Regional Council of Governments)



## **Environmental impacts on pavement rehabilitation**

Rajashekar Reddy Dudipala (Osmania University)

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## **Assessment and Identification of Wildlife Crash Zones in the US Railroad Network**

Elena Sidorova PhD (Southern Colorado Institute of Transportation Technology (SCITT), Colorado State University Pueblo), Saqib Gulzar, Md Rashad Islam PhD



## **State of the Art Thermal Camera and Radar Technology Based Wildlife Detection and Motorist Warning Systems for Preventing Wildlife Vehicle Collisions on Unfenced Roadways**

Tim Hazlehurst (CrossTek)



## **The road to success is paved with collaboration: Insights from Norway**

Svenja B. Kroeger (Norwegian Institute of Bioeconomy Research (NIBIO))



## **Restoring California's Wildlife Connectivity: California Department of Fish and Wildlife's Priority Wildlife Connectivity Barriers in the Central Region**

Michael A. Sawaya (California Department of Fish and Wildlife), David G. Hacker



## **Planning wildlife barrier fencing and crossings using mountain lion road crossing events vs. roadkills**

Rafael Barrientos (Universidad Complutense de Madrid), Guillermo Fandos, Winston Vickers, Travis Longcore, David P Waetjen, Fernando Nájera, Fraser M Shilling



## **Explaining factors of wildlife-trains collisions and use of underpasses and overpasses not dedicated to wildlife by wild ungulates in north-western France – PhD study currently in progress.**

Tess HEYDORFF-DECAUX (SNCF Réseau and LADYSS laboratory)



## **Balancing Preservation and Recreational Access in the Gateway Segment of Clear Creek Canyon Park**

Matt Andrews (Muller Engineering Company), Scot Grossman, Moneka Worah



## **Multi-species occupancy and connectivity modeling for road route planning and mitigation guidance in Southern Brazil**

Talita Menger (Road and Railway Ecology Group (NERF), Federal University of Rio Grande do Sul, Precisa Environmental Consulting), Andreas Kindel, Bibiana Terra Dasoler, Fernanda Z. Teixeira, Júlia Beduschi, Larissa Oliveira Gonçalves, Vinicius Bastazini



## **Temporary Bridges for Mammals in the UK: Designs, Results, and Lessons Learned**

Steve Bega (Animex International), Hattie Taylor, Ian White



## **Relocating a Rare Crayfish: Jefferson County Crayfish**

Kayti Ewing (Arkansas Department of Transportation), Maxwell Hartman, Dustin Lynch, Matt Schrum, Lindsey Lewis, Randal Looney



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**Bridging the Gap Between Ecologists and Transportation Professionals (Engineers, Planners, Operations Staff,...) thru Training**  
Ed Frantz



**Wildlife-Friendly Trails: Shared challenges and potential opportunities to adaptively apply wildlife-vehicle conflict solutions to reduce wildlife-recreation conflict**  
Renee Callahan (ARC Solutions), Marta Brocki, Darin Martens



**Wildlife connectivity barriers in southeastern California: identifying the problems and finding solutions**  
Benjamin Carter (California Department of Fish and Wildlife)



**Restoring California's Wildlife Connectivity, Region 5**  
Skylar Feltman (California Department of Fish and Wildlife)



**California Barriers, San Francisco Bay-Delta Region**  
Sarah Estrella (California Department of Fish and Wildlife)



**UNLOCKING ROADKILL DATA: a comprehensive resource to mitigate the impacts of transportation**  
Clara Grilo (CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, InBIO Laboratório Associado, Campus de Vairão, Universidade do Porto), Tomé Neves, Jennifer Bates, Aliza le Roux, Pablo Medrano-Vizcaíno, Mattia Quaranta, Inês Silva, Kylie Soanes, Yun Wang



**Waterbury IM CULV(109) Wildlife Crossing Structure-Vermont's Landscape Level Connectivity Project Funded by IJJA WCPP**  
Jessie Johnson (VTrans)



**Collaboration for wetland mitigation to benefit aquatic ecosystems along roadsides in Oklahoma**  
Ricky Wilson (HDR Engineering Inc.), Jared Bechtol



**Using landscape structure and species navigation traits to plan road mitigation: insights from individual-based models**  
Bibiana Terra Dasoler (Universidade Federal do Rio Grande do Sul), Fernanda Zimmermann Teixeira, Andreas Kindel, Fernando Ascensão, Vinicius A. G. Bastazini  
"



**Wildlife-Detection Driver Warning Systems' Performance Under Two Different Sets of Conditions**  
Patricia Cramer (Wildlife Connectivity Institute), Robert Hamlin,

# LIGHTNING PRESENTATIONS

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## Applying Roadside Green Infrastructure for Air Pollution and Climate Mitigation at School-based Projects

Sheila Batka (U.S. Environmental Protection Agency (U.S. EPA) Region 5 Air and Radiation Division), Richard Baldauf, Ken Davidson, Jennifer Tyler, Kathy Kowal, Yulissa Aguilar, Megan Gavin, MARRISA MATSLER, Ryder Freed

# Wallis Annenberg Wildlife Crossing

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## **Methodology For Evaluating Mitigation Methods To Improve The Resilience Of Road Cut Slopes**

Eduardo Arancibia-Ruiz (Pontificia Universidad Católica de Chile), Alondra Chamorro, Manuel Contreras-Jara, Tomás Echaveguren



## **Herpetofauna as a Model for Studying the Underestimation of Mortality in Small Vertebrates**

Tatiane de Mello do Carmo (State University of Rio de Janeiro), Camila S. Barros, Mariana M. Vale, Marcus Vinicius Vieira



## **Western Toads Use Undercrossing Structures on Interstate 90's Snoqualmie Pass, Washington State, USA**

Marianne Hall (Central Washington University), Dr. Jason T. Irwin



## **Project Deer: A low-cost, Onboard Audiovisual Animal Detection and Driver Alert System to Mitigate WVCs**

Siddhi Singh (STEM School Highlands Ranch)



## **Evaluating Wildlife Responses to Highway Infrastructure: A Framework for Reducing Wildlife-Vehicle Collisions**

Mahesh Sharma (Colorado State University), Saqib Gulzar, Elena Sidorova, Trung Duong, Md Rashad Islam



## **Predicting roadkill: a regional-scale model for the Northern Tamandua integrating environmental and road characteristics**

Silvio Boyat (Universidad Latina de Costa Rica), Esmeralda Arévalo-Huezo



## **Recent Wildlife Overpass Innovations**

Stuart Murphy (Atlantic Industries Limited), Jason Ford, Kevin Williams, Meckkey El Sharnouby, Phil Carroll



## **Barbed Wire: An Invisible Barrier to Wildlife Movement**

Christie Greene (Wild Aware)



## **Designing and implementing an alternative approach to researching wildlife crossings and highway wildlife-vehicle collisions through a community-based lens**

Christie Greene (Wild Aware), Micheal Horwith



## **Ecosystem Impacts of Water Management Infrastructure: Challenges and Future Directions**

Dr. Sofia Prado-Irwin (Center for Biological Diversity), Aruna Prabhala

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**Patterns of Domestic Animal-Vehicle Collisions on Tribal Lands in Montana**  
Matthew Bell (Western Transportation Institute), Marcel Huijser



**Bats, Bridges, and BMPs**  
Glen Mejia (WSDOT), Kami Koyamatsu, Michael MacDonald, Mike Junor, Abby Tobin



**Sustainable bridges**  
Venkatachalam Karthik (Jacobs), Anuja Baheerathan



**Updated Wildlife Connectivity Efforts in Caltrans District 7 (Los Angeles and Ventura Counties)**  
Francis Appiah (Caltrans), Celina Oliveri



**Let's Get to Work - Electric Vehicle Adoption Leadership**  
Brittney Breen (Forth)



**Taking Advantage of Federal Discretionary Grants to Fund Wildlife Projects**  
Sarah Rigard (HDR), Kaitlin Marousis



**Automated Workflow and Dashboard Solutions for Managing Consultant Document Reviews for Georgia Department of Transportation**  
Christina Schmidt (AtkinsRéalis), Dibya Maheswari, Doug Chamblin, Ryan Pawlikowski, Chris Goodson, Morgan Niccoli



**Linear Infrastructure In And Around The Nairobi National Park: Reducing Wildlife Deaths**  
Elisha Akech Ochungo (Multimedia University)



**Implementation of Road Access for a Traditional Community within the Atlantic Rainforest in a State Park in São Paulo, Brazil**  
Rita Monteiro Falcao (Companhia Ambiental do Estado de Sao Paulo), Ana Luisa Tondin Mengardo, Eduardo Jun Shinohara, Juliana Moreno Pina, Ticiania Risten Viana, Camilo Fragoso Giorgi



**Total Ocelot Inventory and Genetic Monitoring to Inform Ocelot-Transportation Ecology and Conservation Decision-making**  
Emma Brookover (Texas A&M University), Trevor Black, Spencer Ferguson, Elizabeth Grunwald, Tom Langschie, Peter Marbach, Alynn Martin, Daniel Scognamillo, William Stephens, Hunter Vasquez, Thomas Yamashita, John Young, Jr., Michael Tewes

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## **ICOET 2001 to ICOET 2025: Perspectives from over Three Decades Working in Transportation and Ecology**

Ed Frantz (T.Y. Lin International)



## **Economic Sustainability in Maintaining the Low Volume Rural Roads**

Dr. S Shankar (National Institute of Technology Warangal)



## **Road to P.E.L. and Beyond: Getting Transportation Infrastructure Right**

Kovid Saxena (T.Y. Lin International), Ed Frantz



## **Navigating coastal challenges: using the federal 12-component planning process to improve coastal resiliency and create seagrass mitigation near Tampa Bay, FL.**

Ben Shepherd (AtkinsRealis), Nicole Monies, Brent Setchell



## **Using Existing Infrastructure to Improve Wildlife Connectivity**

Steve Bega (Animex International), Ed Parr Farris



## **Training Diverse Professional Groups in Techniques to Permanently Resolve Roadside Beaver Conflicts in Maine: Challenges and Rewards**

Chuck Hulsey (Maine Dept. of Inland Fisheries & Wildlife), Scott Lindsay, Ben Nugent



## **Frogger in the wild: real-life Oregon undercrossing attempts a high score**

Rachel Wheat (Oregon Department of Fish and Wildlife)



## **Evaluating Reduction in Monarch Butterfly Roadkill using TxDOT Monarch Flight Diverters (MFDs)**

Robert N Coulson (Texas A&M University), James L. Tracy, Carl Bierman, Darlene Goehl, Andrew Birt



## **Review of Scientific Field Studies using HALT Technology to Monitoring Small Fauna at the Interface of Transportation Infrastructure and Ecosystems: Advancing Techniques in Transportation Ecology**

Michael Hobbs (Hobbs Ecology)



## **Collaborative Strategies for Integrating Ecology into Transportation Projects: Insights from the Duckabush Estuary Restoration**

Grace Amundsen Barnkow (WSDOT), Theresa Mitchell, Mark Steingrebe, Autumn de la Cruz

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## **Partnering to enhance wildlife movements across northern Arizona**

Jeffrey W Gagnon (Arizona Game and Fish Department), Chad D Loberger, Scott C Sprague, Colin A Beach, Brianna Russo, Bill Davenport III, Keith Knutson



## **Grey 2 Green: Opening a “Habitat Highway” by transforming existing bridges to improve wildlife connectivity**

Steve Bega (Animex International), Carolyne Hayes, Scott Munro



## **Grizzly bear road crossings along US Highway 93, Flathead Indian Reservation, Montana, USA**

Payton Adams (Confederated Salish and Kootenai Tribes), Marcel Huijser, Samantha Getty



## **Utilization of a Noise Attenuation Calibration Model for Concrete Pile Driving in Florida**

Raphael Crowley (University of North Florida), Ryan Shamet, Moses Bosco, Consolatha Mushi, Mariam Makoleo, Emily Sapp, James Gelslechter



## **Control Measures for Non-Exhaust Particulate Matter (PM) Emissions**

Dragomir Bogdanic (California Department of Transportation)



## **Port Graham Fish Passage Program: An Example of Collaboration, Communication, Critical Thinking, and Creativity to Succeed in Remote Alaska**

Irene Turletes (HDR), Marguerite Tibbles, Bruce Buzby



## **Wildlife movement, crossing point use, and mortality along a critical stretch of the 118 Freeway near Los Angeles**

Celina Oliveri (Caltrans) Joanne Moriarty, Seth P. D. Riley



## **Site and species-specific habitat features installed at crossing structures increase their effectiveness at providing safe passage**

Kami Koyamatsu (WSDOT), Glen Kalisz



## **Six Years of Collaborative Monitoring on a South Texas Roadway: What Have We Learned?**

Richard J. Kline (University of Texas Rio Grande Valley), Kevin W. Ryer, John H. Young Jr.



## **Sustainable Maintenance Analysis of Low Volume Rural Roads Using Multi-Criteria Decision-Making**

Raji Reddy Myakala (National Institution of Technology), Shankar Sabavath

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## **Leveraging digitalization to build Sustainable bridges**

Venkatachalam Karthik (Jacobs), Medha Bansal



## **Accomplishments from the Asia's Linear Infrastructure safeGuarding Nature (ALIGN) Project**

Tremaine Gregory (World Wildlife Fund, US), Sandesh Hamal, Padam Chand, Shova Chhetri, Ekraj Sigdel, Divya Karki, Semina Kafle, Swarnima Shrestha, Elina Shahi, Dipankar Ghose, Pramod Neupane, Ridhima Solanki, Chimeddorj Buyanaa, Gantulga Bayandonoi Selenge Gantumur, Oyun-Erdnen Baarardash, Rob Ament, Megan Parker, Fernanda Z. Teixeira, Melissa Butynski, Christine Weinheimer, Kate Newman, Daniel Hornett, Priscilla Yu, Sergiu Jiduc, Victoria Markovitz, Nilanga Jayasinghe, Shail Joshi, Evan Freund, Mary Melnyk, Vignon Houenou



## **Transforming Challenges into Solutions: Innovative Mitigation Strategies in the Caltrans Saratoga Creek Bridge Replacement Project**

Samuel Aguilar (California Department of Transportation), Mita Nagarkar, Lindsay Vivian



## **Rare Species Monitoring & A Changing Future for ROW Vegetation Management**

Sujai Veeramachaneni (Georgia Department of Transportation), Carlee Steppe, Hannah Held, Laci Pattavina, James (Mincy) Moffett, Katrina Morris, Katie O' Shields, Christopher Goodson



## **Advancing Rail Infrastructure Resilience Through Integrated Climate Modeling and Vulnerability Mapping**

Mequela Moreno (DOT Federal Railroad Administration), Michael Johnson



## **North Carolina's Next Chapter in Wildlife Passage Partnership**

Marissa Rodman Cox (NCDOT), Travis Wilson, John Jamison



## **Lessons learned - NCDOT's Use of Innovative Technologies through Conservation Measures**

Cheryl Knepp (North Carolina Department of Transportation),



## **Review of Legal Policy Framework and Capacity Assessment Related to Natural Resource Safeguards in Linear Infrastructures**

Bijaya Raj Paudyal (EERC), Dr. Sushila Chatterji Nepali, Ajaya Shrestha, Dr. Roshan Sherchan, Harish Prashad Bhatta, Kumar Dhamala, Kumar Bhattarai, Suresh Bhattarai, Avash Paudel, Annan Shrestha

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**Integrating spatial ecological network theory into wildlife crossing design**  
Clara Woodie (Dudek)



**Mitigation along major highways can be a priority, but is not necessarily sufficient for conservation**  
Marcel Huijser (Montana State University), James Begley



**Connecting Roads and Ecosystems: South Jersey Transportation Authority's Commitment to the Environment through Collaborative Initiatives**  
Kailey Howard (SJTA), Lauren Hoolahan (SJTA), Nick Marchese, John McDonnell



**Development Model of Urban Ecological Transportation**  
Rajashekar Reddy Dudipala (Osmania University),



**The U.S. Geological Survey and Federal Highway Administration collaborate to provide water-quality tools that transportation agencies use to help inform stormwater management decisions**  
Alana B. Spaetzel (U.S. Geological Survey), Gregory E. Granato



**Improving Surface Transportation Resilience with Nature-Based Solutions**  
Bret Webb (University of South Alabama), Tashae Thompson, Ben Bowers, Jo Sias



**Qualitative Lifecycle Analysis of Rail Tie Materials**  
Briana Litchholt (U.S. DOT), Alicia Zhang, Matthew Simon, Anjuliee Mittelman



**Wildlife use of purposefully modified median barriers on I-49 in southwestern Missouri**  
Brock Ortega (Dudek), Caleb Knerr, David Penning, Jenni Hosey, Christopher Shulse, Craig Switzer, Karne Lane, Fraser Shilling, Clara Woodie, Jeffrey Briggler, Gabe McClain, Cheryl Brehme



**Turtles in Trouble: Recent Lessons Learned in Minnesota**  
Christopher E. Smith (Minnesota Department of Transportation),



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## **Wild animal mitigation along US 160 in southwest Colorado**

Kenneth Ryan (Muller Engineering), Mark Lawler



## **Wildlife Usage of Various Sized Underpass Structures in Eastern North Carolina**

Travis Wilson (North Carolina Wildlife Resources Commission)



## **6PPD-q triggers new focus on stormwater and creates new challenges for ESA consultations**

Jeff Dreier (Washington State Department of Transportation)



## **Innovations In Field Studies for Ecology and Transportation – With Advancing Technology Are We Up to The Challenge?**

Kimberly Laframboise (HDR Inc.)



## **Bridging the Divide - appropriate levels of effort for assessing presence of bats roosting in transportation structures and their implications in western North America**

Jonathan Janes (HDR Engineering, Inc.; Sacramento State University), Amelia Tauber



## **Bridging the Gap: Community Strategies to Address Wildlife-Vehicle Collisions and Road Safety**

Christie Greene (Wild Aware)

Bill Vogrin-CPW



# CONFERENCE COMMITTEES

## Abstract Reviewers

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### Transportation Ecology

- Advance Planning for Transportation Projects
- Wildlife Studies (Camera, eDNA, Connectivity, Survey)
- Wildlife Crossing Planning and Design
- Light & Noise Studies, Statistical/Geospatial Analytics

### AI Wildlife Image Processing

- Image Processing through Pattern Recognition
- Customized Image Management
- Automated Actionable Data Outputs

### Turn-key Environmental

- NEPA/CEQA, Permitting, Cultural, Habitat Restoration

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Rocky Mountain Wild & Denver Zoo Conservation Alliance

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ICOET would not be possible without the Steering Committee and Program Committee. Thank you to all of the people and organizations a part of these committees for helping to create such a successful event.



- CIVIL ENGINEERING
- STRUCTURES ENGINEERING
- SURVEYING
- LANDSCAPE ARCHITECTURE
- CONSTRUCTION MANAGEMENT
- PLANNING & URBAN DESIGN
- GRANT FUNDING ASSISTANCE

Mark Thomas is at the forefront of developing innovative solutions to improve connectivity and safety for wildlife. As transportation design experts, we incorporate biological priorities with engineering design considerations to develop improvements that are approvable by state transportation agencies, constructible, and meet the biological needs of area species.



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IRVINE • LONG BEACH • LOS ANGELES • OAKLAND  
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[markthomas.com](http://markthomas.com)



# CONTACT INFORMATION

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If you have any questions during the conference, please contact the staff below. They will be able to assist you.



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NC State University, Retired  
ICOET Support Staff

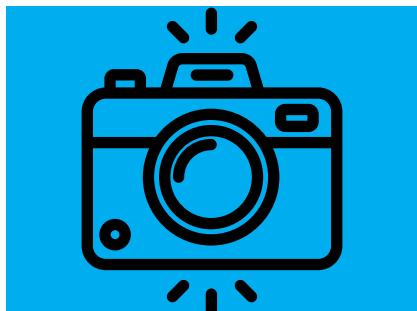
Ruth Carroll



# Presentations & Photos

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Presentations PDFs, video recordings from many of the seminars, and a full photo gallery.



## 2025 ICOET Photo Repository

Check back for a link to a depository of photos from the event.



## 2025 ICOET Presentation PDFS

Check back for a link to PDF versions of the PowerPoint Slides.



## 2025 ICOET Video Presentations

Check back for a link to the playlist of Zoom recordings from each day of the event.