



2015 Colorado Chapter of The Wildlife Society Annual Winter Meeting

Doubletree Hotel, Grand Junction, CO
February 4-6, 2015

See www.wildlife.org/colorado for more information

Wednesday, February 4

8:00 Registration opens

10:00 – 3:00 **Science Communication: Deceptively Simple Tools to Communicate About Complex Issues**

Columbine Liz Neeley, Assistant Director of Science Outreach at COMPASS

Room <http://www.compassonline.org/staff/LizNeeley>

Description: This workshop will help participants distill core messages related to their research and conservation messages, and communicate them effectively in clear, lively terms using a tool called the Message Box. Participants will put their new skills to work by delivering an “elevator speech” and engaging in peer feedback. The workshop will focus on communicating in social media contexts and interacting with non-science audiences. The workshop will help participants develop tools to use in interactions with the media, funders, policy makers and the public. *Lunch provided.*

9:00 – 4:00 **Introduction to Spatial Mark-Recapture Analysis**

Bookcliff Dr. Tabitha Graves, Research Ecologist, Northern Rocky Mountain Science Center

Room <http://www.nrmsc.usgs.gov/staff/graves>

Description: This workshop will introduce participants to the developing field of spatial capture-recapture analyses that integrates spatial data to improve estimation of wildlife abundance, density, and other parameters (vital rates, space use, etc.). The workshop will introduce participants to basic concepts and uses of capture-recapture and mark-resight models in wildlife conservation and management, explain key concepts underlying spatial mark-recapture and its advantages, discuss important study design and data considerations, illustrate use of spatial mark-recapture analysis with examples using program R (package *secr*), and briefly summarize some more advanced issues. Participants will need their own laptop with R installed, should have a wildlife background, at least some experience using program R, and be familiar with basic models of abundance estimation or habitat use analyses. *Lunch provided.*

5:30-7:00 **Film Premier: On the Wild Edge: Hunting for a Natural Life**

Aspen Q&A to follow with David Petersen, Sportsmen, Writer, and Conservationist

Room <http://davidpetersenbooks.com/>

Description: An independent documentary film produced by Christopher Daley, which explores the relationship between mankind and the natural world through the yearly elk hunt of writer, conservationist, and traditional bow hunter David Petersen.

7:00-9:00 **Welcome Social and Student-Professional Mixer**

Kokopelli Complimentary refreshments and food

Room

2015 Workshop Organizers: Stacy Lischka, Brett Walker

Film Premiere Organizer: Nathan Seward

Hotel Facilities & AV: Brad Milley, Ryan Monello

Thursday, February 5

7:30 Registration opens

8:00 - 8:00 **Posters in Grand Parlor** (poster presenter Q & A during breaks)

1st Plenary: Re-evaluating Recreation and Wildlife Conservation

Horizon/Columbine/Bookcliff Rooms (combined)

Morning Moderated by Tony Gurzick, President-Elect, CCTWS

8:15 **Welcome**

Tony Gurzick, President-elect, Colorado Chapter of TWS

8:30 **Keynote Address: Outdoor Recreation, the North American Model, and the Future of Wildlife Management**

David Petersen, Sportsmen, Writer, and Conservationist

<http://www.davidpetersenbooks.com/>

9:15 **Resource Planning in Recreation Management Decision Making**

Jeff Thompson, Resource Stewardship Program Coordinator, Colorado Parks and Wildlife

9:45 **Break**, refreshments provided

10:15 **Outsmarting Management: Elk Responses to Land Management and Vehicle Use**

Doug Ouren, Physical Scientist, United States Geological Survey, Ecosystem Dynamics

10:45 **Colorado Lynx and Winter Recreation Study**

John Squires, Research Wildlife Biologist, USDA Forest Service

Elizabeth Roberts, Wildlife Biologist, White River National Forest

11:15 **Temporal and Spatial Changes in Golden Eagle Reproduction in Relation to Increased Off Highway Vehicle Activity**

Karen Steenhof, Adjunct Professor/Affiliate Researcher, Boise State University, Department of Biological Sciences

N. Kochert, Scientist Emeritus, United States Geological Survey, Forest and Rangeland Science

Jessi L. Brown, Assistant Research Professor, University of Nevada, Reno, Academy for the Environment

11:45 **Lunch (provided to all, same room as plenary), CO Chapter of TWS Annual Business Meeting**

Tony Gurzick, President-elect, Colorado Chapter of TWS

Amy Harmon, TWS Student Chapter, Western State Colorado University

Savanna Smith, TWS Student Chapter, Colorado State University, Western State

Bob Lanka, TWS Central Mountains and Plains Section

2015 Plenary Organizers: Stacy Lischka, Nathan Seward, Tony Gurzick, Stephanie Ferrero, Ryan Monello

2015 Auction Organizer: Cary Aloia

Hotel Facilities & AV: Brad Milley, Ryan Monello

Thursday, February 5 (continued)

1st Plenary (continued): Re-evaluating Recreation and Wildlife Conservation

Afternoon Moderated by Stacy Lischka, CCTWS Board Member

- 1:15 **Balancing Public Access With Species Protection: Current Knowledge and Research Needs**
Sarah Reed, Associate Conservation Scientist, Wildlife Conservation Society and Faculty Affiliate, Colorado State University
- 1:45 **Ties That Bind: Political and Policy Links Between Outdoor Recreation and Land Conservation Pose Challenges for Wildlife Conservation and Management**
Sarah Thomas, Visiting Scholar/Environmental Historian, Center of the American West, University of Colorado

2:15 **Break**

2nd Plenary: Re-evaluating Human- Wildlife Conflicts: Understanding wildlife and people Horizon/Columbine/Bookcliff Rooms (combined)

- 2:45 **Managing Human-Carnivore Conflict in the 21st Century: Old Methods, New Ideas, and the Need for Rigor and Reliable Information**
Stewart Breck, Carnivore Ecologist, USDA-WS-National Wildlife Research Center
- 3:15 **Integrating Social Science to Understand Human-Coyote Conflict in Urban Denver**
Andrew DonCarlos, Research Associate, Human Dimensions of Natural Resources, Colorado State University
- 3:35 **Community Engagement in Human-Wildlife Conflict: Using Citizen Science and Community Level Hazing to Manage Coyote Conflict in Urban Denver**
Mary Ann Bonnell, Visitor Service Supervisor, Jefferson County Open Space
- 3:55 **A Method to Understand Human-Wildlife Conflicts in the 21st Century: An Approach to Include Wildlife and People**
Stacy Lischka, Human Dimensions Researcher, Colorado Parks and Wildlife
- 4:20 **Moderated Panel Discussion**
Stewart Breck, Carnivore Ecologist, USDA-WS-National Wildlife Research Center
Andrew DonCarlos, Research Associate, Human Dimensions of Natural Resources, Colorado State University
Mary Ann Bonnell, Visitor Service Supervisor, Jefferson County Open Space
Stacy Lischka, Human Dimensions Researcher, Colorado Parks and Wildlife
- 4:45 **End of Plenary**
- 6:00 **Mixer, Banquet, Awards, and Auction in Grand Ballroom**
Dinner served at 6:30pm
Awards presentation during dinner; silent & live auction follow

2015 Plenary Organizers: Stacy Lischka, Nathan Seward, Tony Gurzick, Stephanie Ferrero, Ryan Monello

2015 Auction Organizer: Cary Aloia

Hotel Facilities & AV: Brad Milley, Ryan Monello

Friday, February 6

8:00-12:00 **Posters in Grand Parlor** (poster presenter Q & A during break)

Technical Session - Columbine/Bookcliff Rooms (combined)

Moderated by Evan Phillips and Stephanie Ferrero, CCTWS Board Members

- 8:25 Announcements
- 8:30 **Do You Know Where Your Habitat Stamp Has Been Lately? The Colorado Wildlife Habitat Protection Program – History and Accomplishments**
Brian Holmes, Colorado Parks and Wildlife
- 8:50 **Gunnison Sage-Grouse: Collaboration and Opportunity**
Noreen Walsh, US Fish and Wildlife Service
- 9:10 **Shifting Perceptions of Risk and Reward: Dynamic Selection for Human Development by Black Bears**
Heather Johnson, Colorado Parks and Wildlife
- 9:30 **Impacts of Bark Beetle Epidemics on Mammals in Colorado**
Jake Ivan, Colorado Parks and Wildlife
- 9:50 **Using GPS Transmitters to Test Lek-Based Monitoring and Management for Greater Sage-Grouse in Northwestern Colorado**
Brett Walker, Colorado Parks and Wildlife
- 10:20 **Break**
- 10:40 **Investigating the Direct and Indirect Effects of Greenback Cutthroat Trout on Boreal Toad Recruitment**
Wendy Lanier, Colorado State University
- 11:00 **Long-Term Impacts Of Chaining On Bird Communities in the Piceance Basin Of Northwest Colorado**
Travis Gallo, Colorado State University
- 11:20 **Seeding, Soil Surface, And Brush Mulch Effects On Plant Community Development Of Disturbed Mountain Sagebrush Sites**
Danielle Johnston, Colorado Parks and Wildlife
- 11:40 **Refining Scales of Analysis for Resource Selection Functions to Better Manage a Greater Sage-Grouse Population in North Park, Colorado**
Mindy Rice, Colorado Parks and Wildlife
- 12:00 **Closing remarks and best student poster and technical presentation awards**
- 12:30 **CCTWS board meeting**

Technical and Poster Session Organizer: Evan Phillips

Hotel Facilities & AV: Brad Milley, Ryan Monello

Poster Session - in Grand Parlor (Thursday 8am – Friday noon)

Sage-Grouse as an Umbrella Species in Northwestern Colorado

Jennifer Timmer, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Cameron Aldridge, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Retta Bruegger, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Maria Fernandez-Gimenez, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Crystal Tipton, Colorado State University, Department of Fish, Wildlife, and Conservation Biology

Application of the Bighorn Sheep Risk of Contact Tool and Best Available Science to a Domestic Sheep Allotment Analysis Process: the Fisher-Ivy/Goose Allotment, Rio Grande National Forest

Randal W. Ghormley, U.S. Forest Service, Rio Grande National Forest
Dale Gomez, U.S. Forest Service, Rio Grande National Forest

Potential Effects of Natural Gas Development on Neonatal Mule Deer Survival

Mark E. Peterson, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Charles R. Anderson, Jr., Colorado Parks and Wildlife
Paul F. Doherty, Jr., Colorado State University, Department of Fish, Wildlife, and Conservation Biology

Monitoring of “Mustela nigripes” (Black-Footed Ferret) at SoapStone Prairie Natural Area Using a Remote Camera System to Capture Images

Tyler Greenly, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Hayden Akers, Colorado State University, Department of Fish, Wildlife, and Conservation Biology

Hands-on Environmental Education as an Effective Tool for Teaching Middle School Students

Savanna Smith, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Hayden Akers, Colorado State University, Department of Fish, Wildlife, and Conservation Biology
Samuel Peterson, Colorado State University, Department of Fish, Wildlife, and Conservation Biology

Assessing Two Decades of Vegetation Change in Sagebrush Habitats of the Upper Gunnison Basin, Colorado

Kitt Haven, Western State Colorado University
Jonathan Coop, Western State Colorado University
Jessie Dodge, Western State Colorado University
Dan Piquette, Western State Colorado University

Reproductive Biology of the Unaweep Canyon Bluebird Trail

Susan M. Longest, Colorado Mesa University
Bob Wilson, North American Bluebird Society and Grand Valley Audubon Society

First Asia Conservation Expo (ACE)

Hannah Wherry, Colorado State University

Meeting Sponsors

The Colorado Chapter of The Wildlife Society extends a special **thank you** to the following meeting sponsors:



2015 CCTWS Annual Winter Meeting Planning Committee:

Workshop Programs: Stacy Lischka, Brett Walker

Film Premiere: Nathan Seward

Plenary Session Program: Stacy Lischka, Nathan Seward, Tony Gurzick, Stephanie Ferrero, Ryan Monello

Technical Session Program: Evan Phillips

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