



# Call for Papers

## The Wyoming Chapter of The Wildlife Society & The Wyoming Landscape Conservation Initiative



2018 Joint Conference, Nov 6-8, Laramie WY

Submission Deadline: **September 24, 2018**

The Wyoming Chapter of The Wildlife Society and the Wyoming Landscape Conservation Initiative will host a joint conference this year at the University of Wyoming Conference Center in Laramie, Nov. 6-8.

Presentations on any pertinent wildlife or habitat related issue will be considered, but submissions in the following areas are especially encouraged:

1. “Conservation and Research of Sensitive Species” – Exploration of assessments and conservation efforts for species of concern and their habitats.
2. “Movement and Migration of Fish and Wildlife” – Tools to track movement and habitat use; advances in movement/migration science, strategies, and conservation efforts.
3. “Economic Benefits of Conservation Restoration and Habitat Improvement Projects” – Understanding the economic impacts of restoration and improvement projects, and communicating the contribution of these activities to stakeholders.
4. “Mitigating Habitat Change, Adapting Management” – Evaluation of wildlife and habitat management practices and/or policies, and the implications for future management strategies.
5. “New Tricks: Methods, Models, & More” –Novel tools, monitoring approaches and modeling techniques for wildlife and habitat. Includes technological breakthroughs and capabilities that advance our understanding of temporal and/or spatial trends.
6. “Costs of Creature Comforts: Wildlife and Development” –Interactions between development (e.g., oil, wind, exurban housing) and wildlife species.

**POSTER PRESENTATIONS** can be up to 5 feet wide by 4 feet tall. Posters will be presented on the evening of Tues., Nov 6, and will be on display throughout the conference. We encourage anyone who is currently developing a research project or presenting preliminary data to present a poster.

**ORAL PRESENTATIONS** will be either 5 minutes (short talks) or 15 minutes (traditional). Please indicate your preference for a short or traditional format. We will do our best to accommodate your preference.

Submitters will be notified about the status of their abstracts by **Oct 15, 2018**. If an abstract submitted for an oral presentation is denied, the submitter will have the option to present during the poster session.

**ABSTRACT FORMAT:** 300-word limit, single paragraph, with the title in all caps. Note that the online submission platform does not allow for special formatting (e.g. italics) or characters. Please refer to the last page of this document, and the sample abstract on the submission webpage for examples.

Please submit your abstract electronically on the conference website:  
<http://wytwsconference.org/abstract-submissions/>.

**Due to volume, abstracts must adhere to the required format and be submitted through the conference website.**

**TRAVEL FUNDS:** There are funds available for travel awards to help offset conference costs. Both students and professionals are eligible. Award applications will be posted on the Wyoming Chapter of The Wildlife Society website (<http://wildlife.org/wyoming-chapter/>) in the coming weeks. Applications are due **October 19, 2018**.

## EXAMPLE ABSTRACT SUBMISSION

### Responses to questions

1. Name of presenting author (last, first): Sawyer, Hall
2. Is the presenting author a student? No
3. Email address for presenting author: hsawyer@west-inc.com
4. Phone number for presenting author: Phone
5. Preferred presentation format (select one): Oral full-length (15 min)

### Title

A FRAMEWORK FOR UNDERSTANDING SEMI-PERMEABLE BARRIER EFFECTS ON MIGRATORY UNGULATES

### Author names

Hall Sawyer (1), Matthew J. Kauffman (2), Arthur D. Middleton (3,4), Thomas A. Morrison (3), Ryan M. Nielson (1), Teal B. Wyckoff (3,5)

### Affiliations

- (1) Western Ecosystems Technology, Inc., Laramie, WY
- (2) US Geological Survey, Wyoming Cooperative Fish and Wildlife Research Unit, Department of Zoology and Physiology, University of Wyoming, Laramie, WY
- (3) Wyoming Cooperative Fish and Wildlife Research Unit, Department of Zoology and Physiology, University of Wyoming, Laramie, WY
- (4) Program in Ecology, University of Wyoming, Laramie, WY
- (5) Wyoming Geographic Information Science Center, University of Wyoming, Laramie, WY

### Main text

Impermeable barriers to migration can greatly constrain the set of possible routes and ranges used by migrating animals. For ungulates, however, many forms of development are semi-permeable, and making informed management decisions about their potential impacts to the persistence of migration routes is difficult because our knowledge of how semi-permeable barriers affect migratory behavior and function is limited. Here we propose a general framework to advance the understanding of barrier effects on ungulate migration by emphasizing the need to: 1) quantify potential barriers in terms that allow behavioral thresholds to be considered, 2) identify and measure behavioral responses to semi-permeable barriers, and 3) consider the functional attributes of the migratory landscape (e.g., stopovers) and how the benefits of migration might be reduced by behavioral changes. We used global position system (GPS) data collected from two subpopulations of mule deer (*Odocoileus hemionus*) to evaluate how different levels of gas development influenced migratory behavior, including movement rates and stopover use at the individual level, and intensity of use and width of migration route at the population level. We then characterized the functional landscape of migration routes as either stopover habitat or movement corridors, and examined how the observed behavioral changes affected the functionality of the migration route in terms of stopover use. We found migratory behavior to vary with development intensity. Our results suggest that mule deer can migrate through moderate levels of development without any noticeable effects on migratory behavior. However, in areas with more intensive development, animals often detoured from established routes, increased their rate of movement, and reduced stopover use, while the overall use and width of migration routes decreased.