

Nebraska Natural Legacy Conference 2018



Location: Ainsworth Conference Center
606 E. 4th Street
Ainsworth, NE 69210

Wednesday, September 19, 2018

- 9:00 AM CHECK-IN (COFFEE, FRUIT, & PASTRIES)
- 9:30 Welcome – *Alicia Hardin, Wildlife Division Administrator, NE Game & Parks Commission*
- 9:40 Wildlife Habitat Management in and around the Middle Niobrara Biologically Unique Landscape (BUL)
Kelly Corman, Northern Prairies Land Trust & Will Inselman, Nebraska Game & Parks Commission
- 10:15 Recovery of the Niobrara Valley Preserve after Wildfire
Chris Helzer & Amanda Hefner, The Nature Conservancy
- 10:40 BREAK
- 11:05 Keynote Presentation: Are Nebraska's Biologically Unique Landscapes sustainable? New insights and new directives.
Craig Allen, Nebraska Cooperative Fish & Wildlife Research Unit Leader
- Noon NATURAL LEGACY CONSERVATION AWARD
LUNCH

POSTERS: Please visit the research posters on display during breaks:

Time and environment influence incubation by Greater Prairie-Chickens (*Tympanuchus cupido pinnatus*) in the Nebraska Sandhills

– *Ian Hoppe, Jocelyn Olney Harrison, Edward Raynor IV, Mary Bomberger Brown, Larkin Powell, & Andrew Tyre*

Singing in the rain: Greater Prairie-Chickens as an umbrella species in the mixed-grass prairie

– *Ben Wheeler & Dana Varner*

* Presenter

Sept. 19 Afternoon Program

CONCURRENT SESSIONS

Conservation in Nebraska's
Biologically Unique Landscapes (BULs)
Session I
Melissa Panella

Conservation in Nebraska's
Biologically Unique Landscapes (BULs)
Session II
Melissa Marinovich

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| 1:15 PM | Potential extent of eastern redcedar woodlands in the Nebraska Sandhills
– <i>*Dillon Fogarty, Dirac Twidwell, & Craig Allen</i> | Grassland and woodland restoration work in the Verdigris-Bazile BUL
– <i>Jen Corman</i> |
| 1:40 | Working Lands for Wildlife – a leveraged approach for beef, birds, & beetles in Nebraska's Sandhills
– <i>Ryan Lodge</i> | Fungal Diversity of Indian Cave State Park
– <i>Chance Brueggeman</i> |
| 2:05 | "Out of Season" fire in southeast Nebraska Biologically Unique Landscapes
– <i>Kent Pfeiffer</i> | Glacial relict fishes of the Keya Paha
– <i>Cassidy Wessel</i> |
| 2:30 | Habitat management and survey efforts for bats in the Pine Ridge Biologically Unique Landscape
– <i>Erin Divine & Erin Considine</i> | Goals and strategies for the future of landscape restoration in the Loess Canyons
– <i>Andy Moore</i> |
| 2:55 | BREAK
<u>Monitoring</u>
<i>Colleen Rothe-Groleau</i> | <u>Conservation Education</u>
<i>Lindsay Rogers</i> |
| 3:20 | Update on Nebraska's Saw-whet Owls
– <i>Wayne Mollhoff</i> | Legacy in Environmental Education Discovery (LEED)
– <i>*Monica Macoubrie and Jamie Bachmann</i> |
| 3:45 | Monitoring of Interior Least Terns and Piping Plovers on the Niobrara National Scenic River
– <i>Gordon Warrick</i> | The Eastern Redcedar Science Literacy Project
– <i>*Christine Bielski, Dirac Twidwell, & Craig Allen</i> |
| 4:10 | Estimating milkweed (<i>Asclepias</i>) abundance and richness on eastern Nebraska grasslands
– <i>*Mercy Dinwiddie, Kristal Stoner, Carissa Wonkka, Gerry Steinauer, and Melissa Panella</i> | Changing the trajectory of outdoor participation in Nebraska
– <i>Micaela Rahe</i> |
| 4:35 | Survival and growth of Plain Pocketbook <i>Lampsilis cardium</i> freshwater mussels in response to frequent sampling
– <i>Lindsay Ohlman</i> | A decade of bird banding in western Nebraska
– <i>Amber Schiltz</i> |

* Presenter

DINNER: Head east ~6 miles from the Ainsworth Conference Center to join us at the Red Barn for dinner at **6:30 PM**! You'll find the barn on an acreage in the Sandhills located at 43650 U.S. Highway 20, Ainsworth, NE 69210.



Thursday, September 20

8:00 AM COFFEE, FRUIT, & PASTRIES (Check-in for new arrivals)

8:30 Announcements &
The Art of Nature with Tom Bouse

CONCURRENT SESSIONS

Wildlife Management & Monitoring
Will Inselman

Climate Change Issues
Rick Schneider

9:00 Insights into the landscape through natural history research: prairie fires are to Swainson's Hawks (*Buteo swainsoni*) what cottonwood savannas are to North American Beavers (*Castor canadensis*)
– *Andrew Caven*

Rethinking ecological monitoring, boundaries, and conservation goals in an era of global change
– **Caleb Roberts, Craig Allen, David Angeler, & Dirac Twidwell*

9:25 The legacy of common law in Nebraska: legal obstacles to grassland management for resilience
– **Conor Barnes & Dirac Twidwell*

The perpetual state of emergency that sacrifices protected areas in a changing climate
– *Dirac Twidwell, Carrisa Wonkka, Christine Bielski*, Craig Allen, et al.*

10:10 Escape dens for Swift Foxes, a project with Nebraska Department of Transportation
– *Melissa Marinovich*

Identifying climate resilient sites for conservation in the Great Plains
– *Mark Anderson, Marissa Ahlering, Melissa Clark, Kimberly Hall, Rick Schneider*, et al.*

10:35 BREAK

* Presenter

CONCURRENT SESSIONS

Wildlife Management & Monitoring
(Cont.)
Will Inselman

Climate Change Issues
(Cont.)
Rick Schneider

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| 11:00 | Trumpeter Swan fidelity and movements in the Nebraska Sandhills
– * <i>Mark Vrtiska & Julia Nawrocki</i> | Present and future thermal environments available to Sharp-tailed Grouse in an intact grassland
– <i>Edward Raynor*, Larkin Powell, & Walter Schacht</i> |
| 11:25 | Estimating the survival, abundance, and movement of Canada Geese in Nebraska from leg band recovery data
– * <i>Tim Lyons, Mark Vrtiska, & Larkin Powell</i> | Using physiology and behavior to inform conservation and management of threatened fishes: linking mechanisms to population declines
– <i>Jamillynn Poletto</i> |
| 11:50 | AWARD FOR BEST STUDENT PRESENTATION** | |
| Noon | BOX LUNCH TO GO | |

Sept. 20 Afternoon Field Tours: Grab your lunch to go and please be prepared to depart for field tours at 12:15 PM. Please carpool if possible. Bring your own water bottle and be dressed for the outdoors!

Frank Ranch Field Tour

Leader: Kelly Corman, Northern Prairies Land Trust

Eastern redcedar is a well-known threat to the Sandhills Ecoregion, but since the 2012 drought Kentucky bluegrass and even smooth brome are increasing concerns. Fire combined with properly timed grazing has the possibility of managing both redcedar and invasive cool-season grasses. The Frank Ranch has been an innovator in incorporating prescribed fire into their rangeland management. Over the last 3 years, they have become convinced that prescribed fire is a valuable tool in their operation and currently aim to burn 3–4 paddocks per year. They are combining fire and grazing in a particular way that manages invasive cool-season grasses and promotes diversity, while also taking advantage of a temporary increase in forage quality often missed because of concerns about reestablishing cover on sandy soils. Tour participants will have the opportunity to see multiple burn units with varying time since fire. We may also look at some cropland to grassland conversions which are unusual because center-pivots have been used to aid establishments. These plantings have moderate diversity of native grasses, forbs, and shrubs with wildlife and grazing benefits and were planted in 2016 and 2017. Travel time from the Ainsworth Conference Center will be ~25 minutes. The Tour Leader will provide driving directions.

* Presenter

** Award open to current students or those within 12 months following graduation. Student must be the primary person responsible for preparation, data collection, analysis, and delivery of the presentation.

Niobrara Valley Preserve

Leader: Rich Walters, The Nature Conservancy

Take a trip to The Nature Conservancy's Niobrara Valley Preserve to see riparian habitat restoration, oak savanna enhancement, and how patch-burn grazing is being used to successfully manage grasslands. Learn how bison fit into TNC's operation. We will want to carpool in trucks and 4WD vehicles as much as possible. We will have some trucks available on-site for those who don't mind riding in the back during the tour. We will meet at the newly opened Niobrara Valley Preserve Visitor Center. To get there from Ainsworth, drive west 10 miles on U.S Highway 20, then 16 miles north on the country road towards Norden.



The Nebraska Natural Legacy Project extends a special thank you to the Nebraska Environmental Trust for support of this conference.

