

2025 Oklahoma Natural Resources Conference



Hosted by the Oklahoma Chapters of The Wildlife Society, Society for Range Management,
and Oklahoma Invasive Plant Council.

April 7-8
Oklahoma City, OK
Metro Tech Conference Center

MEETING SCHEDULE

Monday, April 7

Registration (South Lobby)8:30 am to 9:00 am

Plenary session (Main Room [GHI])9:00 am to 10:25 am

- Poster Session/Break (South Lobby).....10:25 am to 11:00 am

Presentations (Main Room [GHI] and Room J)11:00 am to 11:45 am

- Lunch.....11:45 am to 1:00 pm

Presentations (Main Room [GHI] and Room J).....1:00 pm to 2:00 pm

- Poster Session/Break2:00 pm to 2:45 pm

Presentations (Main Room [GHI] and Room J).....2:45 pm to 4:00 pm

Adjourn 4:00 pm

Tuesday, April 8

Registration (South Lobby)8:30 am to 9:00 am

Presentations (Main Room [GHI] and Room J) 9:00 am to 10:15 am

- Break10:15 am to 10:45 am

Presentations (Main Room [GHI] and Room J) 10:45 am to 11:30 am

- Lunch.....11:30 am to 1:00 pm

Adjourn 12:00 pm

OKTWS Chapter Mtg (GHI).....1:00 pm to 3:00 pm

2025 OKNRC Planning Committee:

Colter Chitwood – TWS	Will Funk – TWS	Kristen Gillman – TWS
Laura Goodman – OKIPC	Megan McBride – TWS	Alan Sparks – TWS
Steven Smith – TWS	Eric Suttles – TWS	Jack Tidwell – SRM

Plenary Speakers

Gary McManus: From Drought to Deluge: Navigating Oklahoma's Climate Extremes

Gary McManus joined the Oklahoma Climatological Survey in May 1999 and currently serves as the State Climatologist for Oklahoma. Gary's tasks are focused on providing the citizens and decision-makers of Oklahoma with vital and timely climate and weather information, as well as assessing the past weather conditions for the state. Gary is editor in chief of Oklahoma's Monthly Climate Summaries and has done extensive research cataloguing Oklahoma's weather hazards. A lifelong Okie and a native of Buffalo, Oklahoma, Gary earned his B.S. and M.S. degrees in Meteorology from the University of Oklahoma. Gary lives in Norman, Oklahoma, and his wife Jennifer serves as a Counselor in the Moore Public Schools. Gary and Jennifer have three kids: 20-year-old identical twin daughters and an 18-year-old son.

Jeff Pennington: Forty years of prescribed fire use at Lexington Wildlife Management Area, a review and current strategy.

Jeff graduated in 1991 from Oklahoma State University with a B.S. in Wildlife Ecology. In 1992 he began working for the Oklahoma Department of Wildlife Conservation as a biologist responsible for management of Keystone, Skiatook, and Candy Wildlife Management Areas (WMAs). In addition to managing the habitat and user facilities on these WMAs, he was responsible for hunter check stations, wildlife surveys, and some private lands technical assistance in the counties west of the Tulsa metro. In 2011, he promoted to the central region wildlife supervisor, which is his current position. The central region encompasses 28 counties from Kansas to Texas and includes 6 clusters of biologists and technicians. He began using prescribed fire in 1993 and has been either the burn boss or a crew member on hundreds of WMA burns.

2025 OKNRC Oral Presentations

Monday, April 7, 2025

Plenary Session	Management Through Adversity
9:00	Welcome and Introduction – Moderator - Steven Smith
9:10-9:55	Gary McManus (45 min)
9:55-10:25	Jeff Pennington (30 min)
10:25-11:00	Poster Session/Break (South Lobby)

Poster Presentations (presented during breaks) South Lobby – Monday April 7, 2025

Author(s)	Title
<i>C. Bedoian*, N. De Filippo, C. Griffin, M. Barrett, K. Andersson, R. DeYoung, E. Tanner, S. Fuhlendorf, C. Davis, D. Elmore, and M. C. Chitwood</i>	Using camera traps as a proxy for wild turkey nests: Is nest predation random?
<i>N. Butler*, R. Lonsinger, D. Elmore, and M. C. Chitwood</i>	Effect of Supplemental Feeding on Mammalian Nest Predators and Potential Implications to Wild Turkey
<i>C. Raper* and O. Joshi</i>	Understanding landowner concerns with carbon-based forest management in the marginal lands
<i>E. Burkholder*, R. Lonsinger, and M. C. Chitwood</i>	Assessment of Prairie Gray Fox Population, Distribution, Dynamics, and Genetics in Oklahoma
<i>K. Hays, D.B. Arnall, R. Sharry, S. Akin, and J. Derrick</i>	Preserving the Past, Nurturing the Future: Inorganic Fertilizers and the Vital Role of Phosphorus and Potassium in Native Prairie Restoration
<i>K. Hwang, R. Will, O. Joshi, and L. Zhai</i>	The Effectiveness of Thinning and Structural Diversity (SD) on Tree Recovery of <i>Pinus taeda</i> , <i>Populus tremuloides</i> , and <i>Pinus contorta</i> Following Stem Breakage
<i>S. Hager, R. DeSantis, L. Zhai, and J. Weir</i>	Effects of Eastern Redcedar Treatment on Prescribed Fire in Upland Xeric Oak Forests
<i>A. Desjardins, X. Jiao, and J. Yang</i>	Pyroregions of the United States: Using Remote Sensing to Cluster Homogenous Fire Regimes
<i>D. Morale, B. Ferguson, T. Zhang, and C. Zou</i>	Comparison of soil respiration across vegetation covers in a forest-grassland transition zone
<i>S. Roberts, B. Ferguson, T. Zhang, D. Morales, and C. Zou</i>	Soil Moisture Dynamics Under Landcovers of the Cross Timbers Ecoregion
<i>C. Dotterweich and S. Fairbanks</i>	Black bear density and space use across southeastern Oklahoma determined using spatial capture-recapture

2025 OKNRC Oral Presentations - Monday April 7, 2025 (Students competing for the TWS Student Presentation Award)**

Room	Main Room (GHI)	Room J
Moderator	Devin Lindley	Mark Howery
11:00	Drought Impacts on the Efficacy of Invasive Grass Control by Clipping: A Study on Johnsongrass <i>L. Zhai</i>	Birds in a changing climate: A global meta-analysis of weather effects on avian reproduction with implications for bird conservation in Oklahoma <i>H. Todaro**, M. Nessel, A. Galante, A. North, C. Duchardt and S. Loss</i>
11:15	Integrating Prescribed Fire and Herbicide for Invasive Sericea Lespedeza Control in the Tallgrass Prairie <i>K. Johnson, L. Goodman, D. Elmore, J. Ansley, and K. Kauffman</i>	Proliferation of oil and gas activities impacts the annual occupancy rate and breeding success of Mississippi Kite in Western Oklahoma <i>L. Atabo**, T. O'Connell, and F. Atuo</i>
11:30	Co-occurrence modeling indicates coexistence between mesocarnivore species in southeast Oklahoma <i>D. Brosend** and R. Lonsinger</i>	Using Automated Recording Units to Monitor the Spatiotemporal Patterns of Anthropogenic Noise and Grassland Bird Response <i>J. McCauley**, C. Davis, S. Fuhlendorf, B. Luttbeg, and A. Tanner</i>
11:45-1:00	Lunch	
Moderator	Steven Smith	Eric Suttles
1:00	An overview of year one of the Oklahoma Mule Deer Project <i>M. Koeck**, C. Ellis, L. Heffelfinger, A. Moeller, R. Lonsinger, W. Fairbanks, M. Cherry, and M. C. Chitwood</i>	Invertebrate prey resources for migratory shorebirds in Oklahoma lakes and depressional wetlands <i>M. Bleitz**</i>
1:15	Harmless tags or hazardous ads? Investigating the potential for ear tags to increase predation on neonatal ungulates <i>M. Turnley**, W. Fairbanks, R. Lonsinger, M. Cherry, M. Dart, R. DeYoung, D. Hahn, L. Heffelfinger, C. Rickels, E. Tanner, H. Wang, and M. C. Chitwood</i>	Using Apple Airtags to Track Urban Raptors <i>B. Poplin**, J. Bednarz, and A. Gregory</i>
1:30	Reducing bias in unmarked abundance estimates with a focus on activity patterns <i>J. Grosso** and A. Moeller</i>	Local movements of western Willets during the nonbreeding season along the Gulf Coast of The Central Flyway <i>A. Loney**</i>

1:45	Attitudes Toward Benefits and Risks of Supplemental Feeding of Wildlife in Oklahoma <i>M. Watts** and O. Joshi</i>	The Role of Grazing in Shaping Native Bee Communities: Comparing Land Management Strategies in South-Central Oklahoma <i>B. Turnley** and J. Hung</i>
2:00-2:45	Poster Session/Break (South Lobby)	
2:45	Black Bear Presence Increases Coyote Occurrence at Cougar Kill Sites <i>M. Marwin**, R. Hula, R. Lonsinger, L. Bernal, C. Kruse, M. C. Chitwood, and J. Cain III</i>	Are bumble bee and land cover dissimilarity correlated? <i>S. O'Dell** and K. J. Hung</i>
3:00	Virtual Fencing in Rangeland Conservation: A Case Study on Livestock Exclusion and Habitat Restoration <i>K. Pfaffenberger**, C. Duchardt, and S. Dobbs</i>	Updates from the ongoing Oklahoma Native Bee Inventory: filling gaps, making more gaps, and discovering new species. <i>Keng-Lou James Hung, M. Powley, L. McCabe, P. Chesshire, M. Arduser, S. O'Dell, B. Turnley, J. Wingert, I. Gonzales, A. Hill, T. Gentry, I. Lugo, A. vanCuren, K. Wright, Z. Portman, T. Onuferko, J. Gibbs, V. Gonzalez, A. Buthod, N. Cobb, T. Griswold, and J. Ascher.</i>
3:15	Virtual fencing technology maintains vegetation health without the need for more physical fencing <i>T. Olsen** and B. Murray</i>	Modeling Dragonfly Habitat Suitability to Predict Deforestation at Owabi Wetland Sanctuary, Ghana <i>M. Manu**, G. Ashiagbor, and I. Seidu</i>
3:30	The Juniper Evaluation Tool: An Interactive Dashboard for Managing Juniper Vulnerability within the Chickasaw Nation Treaty Territory. <i>M. Micozzi and J. Baker</i>	Response of insect pollinator guilds to winter heatwaves <i>J. Wingert**, S. O'Dell, B. Turnley, M. Richards, and K. J. Hung</i>
3:45	Revision of the Oklahoma Wildlife Action Plan <i>M. Howery and K. Kuklinski</i>	Desktop Protocol to Identify Restorable Stream Segments <i>D. Dvoretz, S. Gilmer and B. Tramell</i>

2025 OKNRC Oral Presentations - Tuesday, April 8, 2025

Room	Main Room (GHI)	Room J
Moderator	Jack Tidwell	Laura Goodman
9:00	Behavior intention to adopt carbon-based forest management in marginal land by non-industrial private forest landowners in Oklahoma <i>S. Poudel, O. Joshi, and R. DeSantis</i>	Interspecific effects of invasive wild pigs on native nine-banded armadillos <i>M. Broadway**, H. Todaro, M. Koeck, C. Dotterweich, S. Cain, L. Buehler, M. C. Chitwood, and R. Lonsinger</i>

9:15	Carbon-Water Tradeoffs of Juniper Encroachment in Subhumid Grasslands: Insights from Eddy Covariance <i>T. Zhang, B. Ferguson, J. Yang, and C. Zou</i>	Comparing nutrient intake by Carolina wolf spiders consuming cricket frogs and crickets <i>C. Hunsucker**, C. Herzog, J. Reeves, S. Wilder, and S. McMurry</i>
9:30	Pyric Herbivory Management Effects on Woody Plant Encroachment <i>A. Barnes**, L. Goodman, and S. Fuhlendorf</i>	Understanding the drivers of naturally occurring low dissolved oxygen in Oklahoma streams <i>D. Dvoretz, J. Dyer, J. Flotemersch and K. Blocksom</i>
9:45	Effects of Anthropogenic Development on Northern Bobwhite Nesting Ecology <i>A. Vonderschmidt**, C. Davis, S. Fuhlendorf, D. Elmore, and B. Kubecka</i>	Natural Resource Social Media – What Works for Extension & Outreach? <i>A. Thompson and L. Goodman</i>
10:00	Nesting cover influences wild turkey hen survival during incubation <i>M. Turner, M. C. Chitwood, C. Harper, D. Buehler, N. Butler, L. Phillips, and M. Lashley</i>	Investigating butterfly communities in a ZooScape <i>Emily Geest and Rebecca Snyder</i>
10:15-10:45	Poster Session/Break (South Lobby)	
10:45	Prescribed fire and visitor activity influence habitat use but not movement patterns of bison at Wichita Mountains Wildlife Refuge. <i>D. Londe, D. McDonald, C. Fallon, and M. Butler</i>	Monitoring hydrology and soil health following Eastern Red Cedar eradication: Can local changes lead to watershed-scale improvements? <i>D. Dvoretz and J. Ramming</i>
11:00	A woodland land snail that benefits from fire? An investigation into the range, ecology, and conservation needs of the Wichita Mountains pillsnail <i>A. Cooper, L. Bergey, T. Fagin, and S. Bittner</i>	Using spectral reflectance to estimate species-specific live fuel moisture content (LFMC) in Oklahoma plants <i>A. Burke, B. Murray, A. Moeller, H. Gholizadeh, and H. Adams</i>
11:15	Private Landowner Perspectives of the Grassland Restoration Incentive Program – Is GRIP a Entry to Long-term Conservation-friendly Actions? <i>D. Wiley, A. Gramza, R. Perez, and A. Matthews</i>	
11:30-1:00	Lunch	
1:00-3:00	Oklahoma Chapter of The Wildlife Society Annual Mtg	



METROTECH DISTRICT CENTER

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