



OKLAHOMA NATURAL RESOURCES CONFERENCE

February 10-12, 2020

Norman, Oklahoma





DEPARTMENT OF
**NATURAL RESOURCE
ECOLOGY AND MANAGEMENT**



HOSTED BY

THE OKLAHOMA CHAPTERS OF:

The Wildlife Society
American Fisheries Society
Society for Range Management
Invasive Plant Council
Society of American Foresters
Prescribed Fire Council

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Ashley Nealis, ODWC

Brandon Reavis, USDA - NRCS

Anthony Rodger, ODWC

Steven Smith, Noble Research Institute

Alex Schwartz, USDA - FS

Angelina Stancampiano, State Parks

SCHEDULE

MONDAY
February 10

10:00 a.m. - 12:00 p.m.	OkIPC Business Meeting	University A
12:00 p.m. - 6:30 p.m.	Check-in Table Open	Foyer
1:00 p.m. - 5:00 p.m.	Rangeland Management Symposium — hosted by SRM	University A
12:30 p.m. - 2:30 p.m.	Blue Thumb — Outdoor Education with Kids	University B
3:00 p.m. - 5:00 p.m.	Student Workshop — Landing a Job in Natural Resources	University B
3:00 p.m. - 5:00 p.m.	Projected Climate Impacts on Aquatic Organisms in Oklahoma	University C
6:00 p.m. - 9:00 p.m.	MIXER / GAMES / POSTER SESSION	Vendor Hall

TUESDAY
February 11

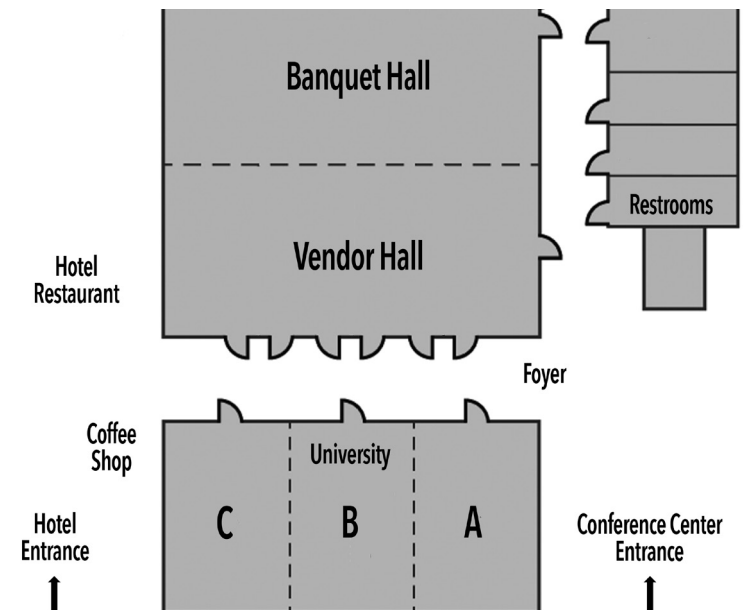
7:30 a.m. - 11:30 a.m.	Check-in Table Open	Foyer
8:00 a.m. - 10:05 a.m.	Plenary Session	University A, B, & C
10:05 a.m. - 10:20 a.m.	BREAK	Vendor Hall
10:20 a.m. - 11:20 a.m.	Duck & Fletcher Scholarship Award Finalists Oral Presentations	University A, B, & C
11:20 a.m. - 12:40 p.m.	LUNCH - <i>on your own or Student/Mentor lunch (preregistration required)</i>	
12:40 p.m. - 1:40 p.m.	Concurrent Session – Invasive Species – Forestry – Aquatic Organisms	University A University B University C
1:40 p.m. - 2:00 p.m.	BREAK	Vendor Hall
2:00 p.m. - 5:00 p.m.	Check-in Table Open	Foyer
2:00 p.m. - 3:20 p.m.	Concurrent Session – Rangeland Flora and Fauna – Fisheries	University B University C
3:20 p.m. - 3:40 p.m.	BREAK	Vendor Hall
3:40 p.m. - 5:00 p.m.	Concurrent Session – Rangeland Flora and Fauna – Fisheries	University B University C
5:00 p.m. - 6:15 p.m.	Business Meetings – The Wildlife Society – Society for Range Management – American Fisheries Society	University A University B University C
6:20 p.m.	MIXER	Banquet Hall
6:30 p.m.	AWARDS BANQUET	Ballroom

SCHEDULE

WEDNESDAY
February 12

7:30 a.m. - 9:00 a.m.	Check-in Table Open	Foyer
8:00 a.m. - 9:00 a.m.	Concurrent Session – Mussel Conservation – Land Use – Human Dimensions in Fisheries Management	University A University B University C
9:00 a.m. - 9:20 a.m.	BREAK	Vendor Hall
9:20 a.m. - 10:20 a.m.	Concurrent Session – Fisheries – Bats – Fisheries Management	University A University B University C
10:20 a.m. - 10:40 a.m.	BREAK	Vendor Hall
10:40 a.m. - 12:00 p.m.	Concurrent Session – Precipitation and Rainfall Use – Avian Management – Fisheries Management and Water Quality	University A University B University C
12:00 p.m. - 1:30 p.m.	LUNCH - <i>on your own</i>	
1:30 p.m. - 3:30 p.m.	Tour of Oklahoma Forestry Services Tree Nursery	Goldsby, OK (20 min drive from conference center, transportation not provided)

MAP



MONDAY
February 10

12:30 p.m. -
2:30 p.m.

**Blue Thumb –
Outdoor Education with Kids**

University B

Candice Miller, Oklahoma Conservation Commission, Educator

Natural resource days and classroom visits are held all over the state by different groups. Often it is a local conservation district or even a set of state agencies working together. The goal of such an event is typically to give children exposure to science and agricultural concepts and introduce them to various professions. Frequently educators try to move in the direction of providing students with a land ethic – a feeling that wildlife and wild places have a right to exist. Since the beginning of the Blue Thumb Program 26 years ago, staff members and even volunteers have made it a point to be present at these kinds of events to share knowledge with children in a fun and practical way and while making use of the outdoor setting. Leave this session with a better feeling about what can be accomplished at a natural resource day and how you can help children, the environment, while retaining your sanity.

Attend this two hour session that will offer:

- Eliminate surprises by asking some questions
- Insights into the needs humans have for nature experiences
- Group Dynamics – holding the attention of 25 fifth graders?
- Meaningful encounters
- Real science in the real outdoors



MONDAY
February 10

1:00 p.m. -
5:00 p.m.

**Rangeland Management Symposium –
hosted by Society for Range Management**

University A

Will Moseley, Noble Research Institute, Moderator

1:00 p.m.

Welcome and Introductions
Will Moseley, Noble Research Institute

1:10 p.m.

Economics of Brush Control
Dr. Myriah Johnson, Noble Research Institute

1:30 p.m.

Grazing and Fire on Cross Timbers WMA
Brandon Baker, ODWC

1:50 p.m.

Grazing Impacts on Water Quality
Brandon Reavis, NRCS

2:10 p.m.

Ranching for Land Stewardship
Meredith Ellis, G Bar C Ranch

2:50 p.m.

BREAK

3:10 p.m.

Impact of Growing Season Burns on Forage Quality
Steven Smith, Noble Research Institute

3:30 p.m.

The Diet Selection and Grazing Distribution of Beef Cattle With Varying Residual Feed Intake Efficiency Scores
Dr. Laura Goodman, OSU

3:50 p.m.

High Stock Density Ranching
Yates Adcock, Middle Creek Ranch

4:30 p.m.

Discussion
Entire Group

5:00 p.m.

Adjourn



OKLAHOMA BIOLOGICAL SURVEY
The UNIVERSITY of OKLAHOMA



MONDAY
February 10

3:00 p.m. -
5:00 p.m.

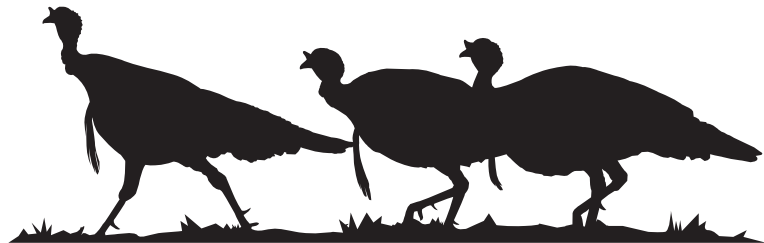
**Student Workshop –
Landing a Job in Natural Resources**

University B

Kristen Gillman, Oklahoma Department of Wildlife Conservation, Moderator

Panel discussion with representatives from state and federal government, private sector, and academia talking about what employers are looking for, internships and job opportunities, and the hiring process. There will be time for questions and, if time, permits resume review.

**Oklahoma State Chapter
of the
National Wild Turkey Federation**



NWTF

Conserve. Hunt. Share.

When the National Wild Turkey Federation was founded in 1973, there were about 1.5 million wild turkeys in North America. After decades of work, that number hit an historic high of almost 7 million turkeys. To succeed, the NWTF stood behind science-based conservation and hunters' rights. Thanks to the efforts of dedicated volunteers, professional staff and committed partners, the NWTF has facilitated the investment of \$488 million in wildlife conservation and the preservation of North America's hunting heritage. The NWTF has improved more than 17 million acres of wildlife habitat and introduce 100,000 people to the outdoors each year. The NWTF Save the Habitat. Save the Hunt. initiative is a charge that mobilizes science, fundraising and devoted volunteers to raise \$1.2 billion to conserve and enhance more than 4 million acres of essential wildlife habitat, recruit at least 1.5 million hunters and open access to 500,000 acres for hunting.

The NWTF is well on its way to meet or exceed these goals. For more information, visit NWTF.org.

MONDAY
February 10

3:00 p.m. -
5:00 p.m.

**Projected Climate Impacts on
Aquatic Organisms in Oklahoma**

University C

Michael Langston, USGS South Central Climate Adaptation Science Center, Moderator

3:10 p.m.	Setting the stage: Future climate in the south central US <i>Michael Langston, USGS South Central Climate Adaptation Science Center</i>
3:30 p.m.	Potential climate impacts and conservation strategies for stream fishes in the Red River <i>Thomas Neeson, OU</i>
3:50 p.m.	Forging a future for stream fishes under environmental stressors <i>Shannon Brewer, USGS, Oklahoma Coop Fish and Wildlife Research Unit</i>
4:10 p.m.	Climate change, freshwater mussels, and ecosystem services <i>Caryn Vaughn, OU</i>
4:30 p.m.	Utilizing mesonet soil temperature data as a surrogate for real-time water temperature in Oklahoma reservoirs <i>Steve O'Donnell, ODWC</i>
4:50 p.m.	Questions
5:00 p.m.	Adjourn



MONDAY
February 10

6:00 p.m. - 8:00 p.m.	Poster Session	Vendor Hall
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Title	Author(s)
Ichthyology Collection of the Sam Noble Museum of Natural History	<i>D. Arcila, S. Cartwright</i>
Preliminary study of genetic diversity in <i>Grindelia ciliata</i> , a promising biofuel crop native to Oklahoma	<i>J. Birkenholz, A. Moore, C. Paden, M. Landis</i>
Seed dispersal of sericea lespedeza (<i>Lespedeza cuneata</i>), an exotic invasive plant	<i>A. Bressoud, B. Murray</i>
Modifying an existing trap design to increase efficiency and safety of catching American black bear	<i>W. Childress, S. Lyda, S. Fairbanks</i>
Monarch butterfly eggs oviposited on tropical milkweed (<i>Asclepias currasavica</i>) in Oklahoma during late summer and fall are unlikely to reach maturity	<i>K. Clement, P. Crawford</i>
Quantifying beaver damage to trees in a bottomland forest at Arcadia Lake, Oklahoma	<i>M. Donoso, C. King</i>
Capture success of American black bears (<i>Ursus americanus</i>) in southeastern Oklahoma utilizing bucket snares	<i>C. Dotterweich, S. Fairbanks, S. Lyda</i>
Fritz L. Knopf Doctoral Fellowship Program in NREM at OSU	<i>J. Elmore</i>
Use of small unoccupied aerial systems (sUAS) in Participatory Research: An example from ARID (Agroecosystem Resilience in Times of Drought)	<i>T. Fagin, J. Vadjunec, C. Barrett, and A. Boardman</i>
Does long term use of frequent prescribed fire reduce crude protein content in plants?	<i>C. McKinney</i>
Understanding climate change resiliency of Oklahoma forests using FVS and Conjoint Analysis	<i>B. Mishra, O. Joshi, R. Wills</i>

MONDAY
February 10

Assessing the distribution, trends, and abundances of bobcats (<i>Lynx rufus</i>) in Oklahoma	<i>N. Proudman, J. Davis, V. Jackson, M. Haynie, S. Fairbanks</i>
Variation in the quality of potential arthropod prey of bobwhite quail (<i>Colinus virginianus</i>)	<i>J. Reeves, C. Davis, S. Fuhlendorf, S. Wilder</i>
Field test of the effectiveness of window markers for deterring bird-window collisions	<i>G. Riggs, S. Loss</i>
A possible look into the future: The effect of fertilizer and simulated drought on loblolly plantations	<i>G. Shokoya, K. McNiel, R. Will, H. Adams</i>
Oklahoma Land Access Program	<i>J. Tibbits</i>
Evaluation of recreational fishing for Eufaula Lake in eastern Oklahoma 2010-2014	<i>A. Whiles, M. Hollie</i>
Digitization of a historical fish dataset from Oklahoma: The legacy of Jimmie Pigg	<i>S. Wineland, R. Williams, B. Hoagland</i>

NATURE FOR CLIMATE
nature.org/climate

The Nature Conservancy

8:00 a.m. - 10:05 a.m.	Risk and Uncertainty: How to Manage Natural Resources in the 21st Century?	University A, B, C
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Craig Davis, Natural Resources Ecology and Management, Oklahoma State University, Moderator

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8:05 a.m.	Often Imitated, Never Duplicated: Oklahoma’s Variable Climate <i>Dr. Kevin Kloesel</i>
8:35 a.m.	How Firm is that Conviction? Stability and Change in Oklahoma’s Beliefs about Climate Change <i>Dr. Hank Jenkins-Smith</i>
9:05 a.m.	Risky Business: Communicating Uncertainty to Land Managers <i>Dr. Joel Brown</i>
9:35 a.m.	Private Lands Conservation: A Vision for the Future <i>Dr. Wes Burger</i>

DR. KEVIN KLOESEL

Often Imitated, Never Duplicated: Oklahoma’s Variable Climate

Kevin Kloesel is the Director of the Oklahoma Climatological Survey (OCS) and the lead author of the US Fourth National Climate Assessment’s chapter on the Southern Great Plains. OCS is charged with providing weather and climate data, analysis and expertise to stakeholders and decision makers throughout the state and operates the Oklahoma Mesonet weather observing network. Dr. Kloesel has three decades experience working with thousands of users of weather and climate data at the international, national, regional, state, and local levels.

DR. HANK JENKINS-SMITH

How Firm is that Conviction? Stability and Change in Oklahoma’s Beliefs about Climate Change

Hank Jenkins-Smith is a George Lynn Cross Research Professor in the Political Science Department at the University of Oklahoma, and serves as Director of the National Institute for Risk and Resilience (NIRR). Professor Jenkins-Smith has published books and articles on public policy, national security, natural disasters, and energy and environmental policy. He has served on National Research Council Committees, as an elected member on the National Council on Radiation Protection and Measurement, and as a member of the governing Council of the American Political Science Association. His current research focuses on theories of the public policy change, with particular emphasis on the management (and mismanagement) of controversial technical issues involving high risk perceptions on the part of the public. He has worked extensively on social and political aspects of nuclear technologies and programs, producing academic articles and government reports as well as leading workshops for engineers and policy makers. Much of Dr. Jenkins-Smith’s research is based on the NIRR’s substantial investment in data collection infrastructure – utilizing both social media and survey data – that enables both long-term and real-time monitoring of the social and policy contexts in which security and environmental programs operate. In his spare time, Dr. Jenkins-Smith engages in personal experiments in risk perception and management via skiing, motorcycling, and back-country hiking.

DR. JOEL BROWN

**Risky Business:
Communicating Uncertainty to Land Managers**

Joel Brown is a rangeland ecologist at the Jornada Experimental Range, New Mexico State University. He is currently the Leader of the NRCS National Ecological Site Team. His professional interests include land description and classification systems, carbon sequestration on rangelands, and grazing land ecology. His professional experience includes 5 years as an NRCS Field and Area Range Conservationist in Kansas, 5 years as California NRCS State Rangeland Specialist, 5 years as CSIRO (Australia) Project Leader and Senior Principal Research Scientist, 5 years as NRCS Global Change Leader. His formal education includes a B.S. in Agriculture/Botany from Fort Hays State University (KS), a M.S. in Grazing Ecology from Texas A&M University, and a Ph.D. in Shrubland Ecology from Texas A&M University. He is the 2019 Society for Range Management Frederic Renner Award recipient.

DR. WES BURGER

**Private Lands Conservation:
A Vision for the Future**

Wes Burger is Associate Director of the Mississippi Agricultural and Forestry Experiment Station, Associate Director of the Forest and Wildlife Research Center, Mississippi State University, Giles Distinguished Professor, and Dale Arner Distinguished Professor of Wildlife Ecology in the Department of Wildlife, Fisheries, and Aquaculture at Mississippi State University. Wes is a Fellow of the Wildlife Society and holds B.S. degrees in Biology and Mathematics from Murray State University, and M.S. and Ph.D. in Wildlife Biology from University of Missouri-Columbia. Over the past 25 years, his research has focused on the ecology and management of disturbance-dependent upland birds in managed landscapes, with an emphasis on measuring environmental benefits and services produced by conservation practices in working agricultural and forested landscapes.

Wes is a Grisham Master Teacher and the recipient of the 2016 Powe Research Excellence Award. He has secured more than \$22.7 million in research grants and authored more than 242 publications. Wes has been a leader in the precision conservation movement emphasizing strategic delivery of targeted conservation practices in working landscapes. His research in avian ecology has shaped our current understanding of bobwhite mating systems, population ecology, and energetics. His research in strategic conservation has informed farm bill policy and shaped conservation delivery at state, regional, and national scales throughout each of the previous 4 food security acts (Farm Bills).

In his current role as Associate Director, he works to define, develop, and administer a broadly-based research program of national significance in agriculture and natural resources through grants and contracts administration, management of intellectual property and fostering of research partnerships with industry, agency, and stakeholders groups.



- Agronomy • Range Management
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Bureau of Land Management Services provided throughout the entire Continental US US Army Corps of Engineers
 Bureau of Indian Affairs 405.286.9326 US Forest Service
 State Lands www.reagansmith.com US National Grasslands
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DUCK & FLETCHER SCHOLARSHIP AWARD

TUESDAY
February 11

10:20 a.m. - 11:20 a.m.	Student Finalists Oral Presentations	University C
<i>Priscilla Crawford, Oklahoma Biological Survey, University of Oklahoma</i> Moderator		
10:20 a.m.	Drought impacts to stream communities and ecosystems within freshwater mussel beds <i>Traci Dubose</i> University of Oklahoma Oklahoma Biological Survey & Department of Biology	
10:40 a.m.	Response of loblolly pine plantations to fertilization and eight years of simulated drought <i>Noah Shepherd</i> Oklahoma State University Department of Natural Resource Ecology and Management	
11:00 a.m.	Assessment of functional diversity of a managed pine-oak forest in southeastern Oklahoma using remote sensing techniques <i>Nicole Pauley</i> Oklahoma State University Departments of Geography & Natural Resource Ecology and Management	

Almost 80 years ago, two Oklahoma Game and Fish Department biologists Lester G. Duck and Jack B. Fletcher authored what might arguably be Oklahoma's most important and prolific biological research ever published. Their landmark 144-page book, *A Survey of the Game and Furbearing Animals of Oklahoma*, and their equally thorough and beautiful *A Game Type Map of Oklahoma* has been cited within thousands of scientific journals since being published in 1943. Because of its breadth, accuracy and the fact that nothing like it had ever been done before, Duck and Fletcher's work continues to serve as the baseline to current and future research involving Oklahoma's living organisms.

from "A Baseline of Diversity" by Rich Fuller, *Outdoor Oklahoma*

We honor Duck and Fletcher's early work on Oklahoma's biodiversity by naming this new student award for them.

CONCURRENT SESSIONS

TUESDAY
February 11

TOPIC	INVASIVE SPECIES	FORESTRY	AQUATIC ORGANISMS
Moderator	<i>Curtis Tackett, ODWC</i>	<i>Cassandra Meek, USFS</i>	<i>Jason Schooley, ODWC</i>
Location	University A	University B	University C
12:40 p.m.	The Influence of <i>Cyprinus carpio</i> on macroinvertebrate communities in the Nebraska Sandhills <i>J. Glover*</i> , <i>A. Dzialowski</i> , <i>C. Davis</i> , <i>B. Mausbach</i>	Keeping your ducts in a row: Defense mechanism and annual growth response to drought and fertilization treatments in <i>Pinus taeda</i> <i>K. McNiel*</i>	Investigating ranavirus prevalence in Oklahoma turtles <i>J. Casauay*</i> , <i>J. Watters</i> , <i>C. Siler</i>
1:00 p.m.	Assessing the impact of invasive brown widows (<i>Latrodectus geometricus</i>) on the ecological niche of four native black widow species in the United States <i>M. Sadir*</i> , <i>K. Marske</i>	Sediment response to converting eastern redcedar to grassland <i>Y. Zhong*</i> , <i>A. Saenz</i> , <i>C. Zou</i> , <i>E. Stebler</i> , <i>R. Will</i>	Practicality of non-lethal aging structures for catostomids <i>D. Zentner*</i> , <i>S. Brewer</i> , <i>D. Shoup</i>
1:20 p.m.	What makes a weed? Comparison of native annual vine and problematic invaders <i>C. Johnson*</i> , <i>L. Castle</i>		Crayfish – how they invade and what it means for Oklahoma <i>B. Grubb*</i> , <i>S. Brewer</i>

1:40 p.m. **BREAK** **BREAK**

TOPIC	RANGELAND FLORA & FAUNA	FISHERIES
Moderator	<i>Priscilla Crawford, OBS-OU</i>	<i>Dan Shoup, OSU</i>
Location	University B	University C
2:00 p.m.	A burning question: Can wildfire risk be predicted through physiological drought responses in eastern redcedar? <i>J. Dudek*</i> , <i>W. Hammond</i> , <i>L. Wilson</i> , <i>H. Adams</i>	Examining the relationship between prairie chub <i>Machrybopsis australis</i> spawning and environmental variables within the upper Red River basin <i>M. Wedgeworth*</i> , <i>S. Brewer</i>
2:20 p.m.	Effects of acclimation on cattle response to humans while being handled <i>C. Hemphill*</i> , <i>R. Reuter</i> , <i>J.P.S. Neel</i> , <i>L. Goodman</i>	Estimating occupancy of least darter and sympatric spring-associated species <i>D. Swedberg*</i> , <i>R. Mollenhauer</i> , <i>S. Brewer</i>
2:40 p.m.	Growth patterns, survivorship, and space use of young age classes of Texas horned lizards on Tinker Air Force Base <i>M. Vesey*</i> , <i>C. Siler</i> , <i>R. Moody</i> , <i>J. Mook</i> , <i>E. Schauber</i>	Occurrence of diminutive Great Plains fishes related to seasonal flow patterns <i>D. Moore*</i> , <i>R. Mollemhauer</i> , <i>S. Brewer</i>
3:00 p.m.	Native bee biodiversity, Oka'Yanali and Pontotoc Ridge Preserves <i>J. Montalva*</i> , <i>L. Dudley</i>	Influence of spring run tributaries on temperature and fish assemblages in the Blue River and Little Blue Creek in south-central Oklahoma <i>M. Knight*</i> , <i>T. Patton</i>

CONCURRENT SESSIONS

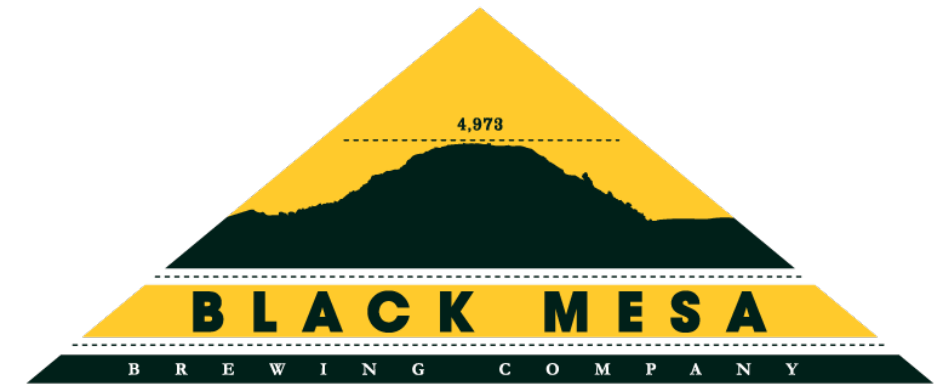
TUESDAY
February 11

3:20 p.m. BREAK		BREAK	
TOPIC	RANGELAND FLORA & FAUNA	FISHERIES	
Moderator	<i>Phillip Stevenson, USFWS</i>	<i>Jim Long, USGS</i>	
Location	University B	University C	
3:40 p.m.	Multi-species occupancy, detection, and habitat selection of mesocarnivores in eastern Oklahoma with a focus on eastern spotted skunks <i>K. Branham★, V. Jackson</i>	Striped bass exploitation, movement, and population dynamics in the lower Arkansas River basin <i>A. Vaisvil*, S. Brewer, D. Shoup</i>	
4:00 p.m.	Northern bobwhite habitat use in Oklahoma <i>S. Cady★, C. Davis, S. Fuhlendorf, K. Andersson, L. Goodman, D. Elmore</i>	Behavior responses by native warmwater fishes in response to introduced rainbow trout <i>P. Shaw*, R. Mollenhauer, S. Brewer</i>	
4:20 p.m.	Thermal ecology and multi-scale nest site selection of scaled quail <i>K. Kauffman★, D. Elmore, C. Davis, S. Fuhlendorf, L. Goodman</i>	Gear bias of low-frequency electrofishing for flathead catfish, <i>Pylodictis olivaris</i> , in Reservoirs <i>G. Montague*, D. Shoup</i>	
4:40 p.m.	Hierarchical habitat selection and behavioral trade-offs by greater prairie-chicken broods <i>D. Londe★, D. Elmore, S. Fuhlendorf, C. Davis</i>	Identifying potential spawning habitat for paddlefish in the Verdigris River <i>R. Gary*, J. Long</i>	

- ✕ Students competing for the OKIPC Student Presentation Award
- ★ Students competing for the TWS Student Presentation Award
- * Students competing for the AFS Student Presentation Award

Evening Activities

5:00 p.m. - 6:15 p.m.	Business Meetings – The Wildlife Society – American Fisheries Society – Society for Range Management	University A University B University C
6:20 p.m.	MIXER	Banquet Hall
6:30 p.m.	AWARDS BANQUET	Ballroom



CONCURRENT SESSIONS

WEDNESDAY
February 12

TOPIC	MUSSEL CONSERVATION	LAND USE	HUMAN DIMENSIONS IN FISHERIES MANAGEMENT
Moderator	<i>Clint Porter, Blackbird Environmental</i>	<i>Mike Porter, NRI</i>	<i>Matt Gamble, ODWC</i>
Location	University A	University B	University C
8:00 a.m.	Assessing the loss of a diverse native mussel community <i>C. Tackett</i>	Oklahoma's Abandoned Mine Land Reclamation Program <i>R. Toole, B. Stacy</i>	The effects of social-psychological factors on black bass fishing demand in Oklahoma Ozark streams <i>B. Chapagain, O. Joshi, J. Long, A. Taylor</i>
8:20 a.m.	Assessment of the conservation status of the western fanshell (<i>Cyprogenia aberti</i>) and update on the continuing assessment of other freshwater mussels (Bivalvia: Unionoidea) occurring in Oklahoma <i>D. Martinez</i>	Identifying factors influencing constituent use of ODWC management areas <i>J. Howard, C. Jager, B. York</i>	Angler catch and attitudes toward black bass in Oklahoma Ozark streams <i>J. Long, A. Taylor, B. Chapagain, O. Joshi</i>
8:40 a.m.	The livers of the rivers <i>R. Blankenship</i>	When the first three invasive species maps disagree, make a fourth <i>L. Castle</i>	Show me the money: Insights from the Robbers Cave trout fishery creel survey <i>D. Bogner, J. Hollie, A. Drake, D. Groom</i>
9:00 a.m.	BREAK		BREAK
TOPIC	FISHERIES	BATS	FISHERIES MANAGEMENT
Moderator	<i>Edie Marsh-Matthews, OU</i>	<i>Matt Fullerton, ODWC</i>	<i>Sherylann Denslow, ODWC</i>
Location	University A	University B	University C
9:20 a.m.	Defining "Fish Regions" for Oklahoma <i>E. Marsh-Matthews, W. Matthews</i>	Survey of the distribution, habitat, and current and historical presence of white-nose syndrome in the tri-colored bat in Oklahoma <i>B. Coyner, J. Braun, H. Lanier</i>	Evaluating the effectiveness of a statewide trophy length limit (762 mm) for blue catfish (<i>Ictalurus furcatus</i>) in Oklahoma <i>J. Duck, R. Snow, J. Long</i>
9:40 a.m.	Leopard darter population and percid community variability in the Little River drainage of southeast Oklahoma and southwest Arkansas <i>J. Fisher, D. Fenner</i>	Population status, home range and foraging habitat of northern long-eared and tri-colored bats during fall swarm at Ozark Plateau National Wildlife Refuge <i>P. Moore, T. Remick, L. Robbins</i>	Broken Bow Bass: Then and Now <i>D. Bogner, K. James, D. Groom</i>
10:00 a.m.	Epidemiology and genetic variation in the cnidarian parasite of sturgeon and paddlefish eggs, <i>Polypodium hydriforme</i> <i>J. Schooley, B. Okamura, A. Hartigan, P. Long, E. Loi, K. Smith-Easter, V. Aleoshin, M. Kyrill, P. Ruggeri, A. Marques</i>	Habitat preferences and temporal distribution of forest dwelling bats in northeastern Oklahoma <i>R. Robison, M. Shaughnessy</i>	Go Big or Go Home: Florida Largemouth Bass Introduction into a Northeastern Oklahoma Reservoir <i>B. Johnston</i>
10:20 a.m.	BREAK		BREAK

CONCURRENT SESSIONS

WEDNESDAY
February 12

TOPIC	PRECIPITATION & RAINFALL USE	AVIAN MANAGEMENT	FISHERIES MANAGEMENT & WATER QUALITY
Moderator	<i>Jeanine Lackey, TNC</i>	<i>Paige Schmidt, USFWS</i>	<i>Keith Thomas, ODWC</i>
Location	University A	University B	University C
10:40 a.m.	Precipitation and environmental condition monitoring: connecting volunteers, technology, and natural resource managers <i>N. Colston, A. Ibukun, T. Asino, C. Abai</i>	Forest bird monitoring to inform and evaluate silvicultural treatments of bottomland hardwood forests at Little River National Wildlife Refuge <i>P. Schmidt, D. Stewart, J. Mueller, D. Arbour, J. Stephens, D. Weaver</i>	Exploring the genetic diversity of smallmouth bass within the interior highlands <i>A. Taylor, J. Long, S. Brewer, J. Gunn, V. Buonaccorsi, J. Stannard</i>
11:00 a.m.	Developing a rapid assessment method for determining the condition of floodplain wetlands in Oklahoma <i>A. Thornton, C. Davis, B. Tramell, D. Dvoretz, S. Gilmer</i>	Understanding how differences in vegetation change across landscapes impact the daily movement decisions of northern bobwhite <i>L. Neumann, C. Davis, S. Fuhlendorf, D. Elmore, L. Goodman, K. Anderson</i>	Feeding ecology of introduced rainbow trout and interactions with the native food web in an Ozark Highland stream <i>A. Rodger, T. Starks, D. Wallace, J. Burroughs</i>
11:20 a.m.	Effects of eastern redcedar encroachment on ecosystem productivity and water use <i>K. Schmidt, C. Zou, Y. Zhong, E. Stebler, V.G. Kakani, R. Will</i>	Wintering ecology of longspurs in the Southern Great Plains <i>J. Ross, J. Muller, N. Perera</i>	Status and trends of non-point source pollution in the Wadeable streams of Oklahoma <i>J. Dyer</i>
11:40 a.m.		Multi-scale, species-level habitat selection of migratory shorebirds in the Great Plains <i>J. Elmore, C. Davis, S. Fuhlendorf, D. Elmore, G. Albanese, S. Loss.</i>	Shore bank erosion due to wave action: An experimental study on the effectiveness of floating wetlands in reducing wave propagation in reservoirs, potential implementation into Lake Thunderbird, OK <i>M. O'Brien, D. Wiltsie, J. Vogel, G. Graves, D. Storm, S. Patterson</i>
12:00 p.m.	LUNCH		LUNCH

Afternoon Activity

1:30 p.m. - 3:30 p.m.	Tour of Oklahoma Forestry Services Tree Nursery	Goldsby, OK (20 min drive from conference center, transportation not provided)
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Our goal is to bring together a wide range of natural resource professionals and students to educate each other and foster partnerships.