

2016 Oklahoma Natural Resources Conference



**Hosted by the Oklahoma Chapters of The Wildlife Society, American
Fisheries Society, Society for Range Management, Invasive Plant Council,
Prescribed Fire Council and
Soil and Water Conservation Society.**

February 24-26, 2016

Oklahoma City, OK

Renaissance Hotel and Cox Convention Center

MEETING SCHEDULE

Wednesday, February 24 (Cox Convention Center)

Great Plains Native Fish Conservation Advisory Council (Room 1, 2, 3) ..	8:00 am to 5:00 pm
Oklahoma Quail Research Symposium setup (Room 4-5)	12:00 pm to 1:00 pm
Oklahoma Quail Research Symposium (Room 4-5)	1:00 pm to 5:00 pm
A/V Set-up for presenters (Cox Convention Center Lobby)	4:00 pm to 6:00 pm
Registration (Cox Convention Center Lobby)	4:00 pm to 7:00 pm
Student/Professional Mixer (Cox Convention Center Lobby).....	6:30 pm to 9:00 pm

Thursday, February 25

Registration (Cox Convention Center Lobby)	7:00 am to 2:00 pm
Meeting welcome (Rooms 1, 2, 3)	8:00 am to 8:05 am
Tyler Powell (Rooms 1, 2, 3)	8:05 am to 8:35 am
J. D. Strong (Rooms 1, 2, 3)	8:30 am to 9:05 am
Break	9:05 am to 9:20 am
Stream and River Conservation (Rooms 1-2)	9:20 am to 10:20 am
Conservation Project Updates (Room 3)	9:20 am to 10:20 am
Evaluating Sampling Methods (Rooms 4-5)	9:20 am to 10:20 am
Break	10:20 am to 10:40 am
Stream and River Conservation (Rooms 1-2)	10:40 am to 11:20 am
Conservation Project Updates (Room 3)	10:40 am to 11:20 am
Evaluating Sampling Methods (Rooms 4-5)	10:40 am to 11:20 am
Lunch (on your own but include a student)	11:20 am to 1:00 pm
Human Demographics (Rooms 1-2)	1:00 pm to 2:20 pm
Population Management (Room 3)	1:00 pm to 2:20 pm
Species of Concern (Rooms 4-5)	1:00 pm to 2:20 pm
Break	2:20 pm to 2:40 pm
DNA and Genetic Testing (Rooms 1-2)	2:40 pm to 3:20 pm
Invasive Species (Rooms 3)	2:40 pm to 3:20 pm
Species of Concern (Rooms 4-5)	2:40 pm to 3:20 pm
Break	3:40 pm to 4:00 pm
Business Meetings	4:00 pm to 5:30 pm
TWS – Rooms 1-2 OKIPC – Room 3 AFS – Rooms 4-5	
SRM – Room 8 SWCS – Room 9	
Poster Session (Cox Convention Center Lobby)	8:00 am to 5:00 pm
Social, Dinner and Awards Presentations (Rooms 9-12)	6:00 pm to 9:00 pm
Raffle/Auction (Rooms 9-12)	7:00 pm to 9:00 pm

Friday, February 26

Registration (Cox Convention Center Lobby).....	7:00 am to 11:00 am
Landscape Conservation Design (Rooms 1-2)	8:00 am to 9:40 am
Distributions and Habitat use (Room 3)	8:00 am to 9:40 am
Fire on the Landscape (Rooms 4-5)	8:00 am to 9:40 am
Break	9:40 am to 10:00 am
Landscape Conservation Design (Rooms 1-2)	10:00 am to 11:20 am
Climate and Energy (Room 3)	10:00am to 11:20am
Stream and Landscape Conservation (Rooms 4-5)	10:00am to 11:40am
Student Award Presentations (Room 1-2)	11:40am
Adjourn	12:00pm

2016 OKNRC Planning Committee:

Steven Smith – TWS

Josh Richardson – TWS

Kristen Gillman – TWS

Daniel Fenner – AFS

Kurt Kuklinski – AFS

Clayton Porter – AFS

Priscilla Crawford – OKIPC

Blayr Gourley – SRM

Colin Walden – SRM

Joshua Ketch – SWCS

Plenary Speakers

Tyler Powell – Oklahoma Deputy Secretary of Environment

Tyler Powell is Oklahoma's Deputy Secretary of Environment and has been with Governor Fallin's administration since April 2011. In this role he advises the Governor and Secretary of Energy & Environment on issues related to air, land, water and wildlife; and provides oversight of the state's environmental agencies including the Oklahoma Department of Environmental Quality, the Oklahoma Department of Wildlife Conservation and the Oklahoma Water Resources Board. Prior to being in this role he was a Field Representative for Congressman Tom Cole. Tyler is a native of Guthrie, Oklahoma and holds a B.S. in Agribusiness from Oklahoma State University in 2010 where he was named one of ten Outstanding Seniors. He is a graduate of Leadership Oklahoma City's LOYAL program.

J. D. Strong – Executive Director of the Oklahoma Water Resource Board

J. D. Strong was named Executive Director of the Oklahoma Water Resources Board in October 2010. He previously served as Oklahoma's Secretary of Environment, where he coordinated activities of the Environmental Cabinet, including the Department of Environmental Quality, Water Resources Board, and Department of Wildlife Conservation.

Under Strong's leadership, the OWRB updated the Oklahoma Comprehensive Water Plan, a 50-year water supply assessment and policy strategy to meet Oklahoma's future water needs. Strong also oversees administration of Oklahoma's AAA-rated \$3 billion Financial Assistance Program, which assists more than two-thirds of Oklahoma communities and rural water districts in financing water infrastructure projects. Other significant programs under Strong's direction include the administration of almost 13,000 water rights permits allocating some 6 million acre-feet of stream and groundwater, hydrologic studies, licensure of water well drillers, floodplain management, dam safety, and a water quality management program that includes establishment of standards and statewide monitoring of lakes and streams. Strong represents Oklahoma on the Western States Water Council and Chairs its Water Quality Committee, and also serves as Oklahoma's Commissioner on four Congressionally-approved interstate water Compact Commissions.

A fifth generation Oklahoman, Strong grew up in Weatherford and earned a bachelor's degree from Oklahoma State University. While finishing his degree at OSU, Strong began his career at the OWRB working as an environmental specialist.

2016 OKNRC Oral Presentations

Thursday, February 25, 2016

Session	Status of Natural Resources in Oklahoma (Rooms 1, 2, 3)		
8:00	Welcome and Introduction – Steven Smith		
8:05	Tyler Powell – Status of Natural Resources in Oklahoma		
8:35	J. D. Strong – Water for 2060 and how it Affects Oklahoma’s Natural Resources		
9:05	Break		
	Stream and River Conservation	Conservation Project Updates	Evaluating Sampling Methods
Room	1-2	3	4-5
9:20	Interactive effects of hydrology and channel characteristics on densities of age-0 smallmouth bass in the Ozark Highlands <i>A. Miller**</i>	Local and global wildlife conservation initiatives supported by Oklahoma City Zoo and Botanical Garden <i>R. Snyder</i>	One fish, two fish, what a lot of fish there are: comparison of smallmouth bass abundance estimates in wadeable streams using multiple sampling methods <i>R. Mollenhauer*</i>
9:40	Variation in critical thermal maximum between stream fishes of two Oklahoma watersheds <i>J. Alexander*</i>	Wichita Mountains Wildlife Refuge – Biological Programs <i>D. McDonald</i>	A synthesis of methods for sampling shovelnose sturgeon and the realities for sampling a highly altered system of the Great Plains <i>J. Johnston</i>
10:00	Larval and littoral fish assemblage structure in the lower Brazos River, Texas, in relation to flow variation and lateral connectivity <i>A. Rodger</i>	Natural resource conservation in the Botanical Garden at the Oklahoma City Zoo: Water conservation demonstration garden development <i>L. Swearingin**</i>	Synthesizing our current understanding about the effectiveness of gear types for sampling fish populations <i>J. Hill*</i>
10:20	Break		
10:40	Water quality and fish community structure characteristics in middle-order, low-gradient streams in the Mississippi Alluvial Plain <i>M. Skoog</i>	Status, direction and challenges for refuge programs on Salt Plains National Wildlife Refuge <i>S. Kasson</i>	Estimating relative shad densities using hydroacoustics <i>G. Johnson*</i>
11:00	Influence of hydrology on the age distribution of fishes in the Red River Basin	Population status of American black bears (<i>Ursus americanus</i>) in southeast Oklahoma after 7 years of harvest	Evaluation of the tooth replacement and wear and aging on the hoof aging techniques for white-tailed deer

	<i>J. Dattilo*</i>	<i>M. Pfander**</i>	<i>K. Gee</i>
11:20		Using the at-risk assessment tool to identify plant conservation priorities <i>L. Castle</i>	Landscape Cover: Visual versus olfactory <i>D. Fogarty**</i>
11:40	Lunch (on your own but include a student)		
Session	Human Demographics	Population Management	Species of Concern
Room	1-2	3	4-5
1:00	Species and management issues of concern to land managers <i>M. Porter</i>	Threats to pelagic-broadcast spawning cyprinids <i>S. Brewer</i>	Comparison between seasonal abundance and parasitism of a dispersal limited moth in burned or mowed habitats <i>M. Kersten**</i>
1:20	Valuing recreational fisheries in Oklahoma <i>M. Melstrom</i>	Reservoir index development and walleye/saugeye stocking criteria investigation <i>S. O'Donnell</i>	Environmental DNA for monitoring and detection of rare and endangered cavefish and cave crayfish in the Ozark Highlands <i>A. Gabriel*</i>
1:40	Constituent insights using exploratory data analysis: A case study of Oklahoma black bear hunter <i>C. Jager</i>	A comparison of fish community structure between Clear Boggy and Muddy Boggy creeks, in southeast Oklahoma <i>Z. Zbinden*</i>	Fall breeding monarchs in the southern Great Plains: Implications for the overall monarch population <i>K. Baum</i>
2:00	Managing wildlife department fishing areas in southeast Oklahoma <i>K. James</i>	Introgression and population structure of Neosho smallmouth bass <i>A. Taylor*</i>	The influence of urbanization on monarch-parasite interactions <i>K. Deal**</i>
2:20	Break		
Session	DNA and Genetic Testing	Invasive Species	Species of Concern
Room	1-2	3	4-5
2:40	Population genetic analysis of longear sunfish, <i>Lepomis megalotis</i> , in northeastern Oklahoma <i>M. Schwemm</i>	Oklahoma Invasive Plant Council: Facilitating education and management for the protection of our economic and natural resources <i>K. Hickman</i>	Nocturnal roost site selection by lesser prairie-chickens <i>A. Unger**</i>
3:00	DNA testing in wildlife forensic science <i>B. Cassidy</i>	The invasive ringed crayfish: Understanding occurrence patterns in the Ozark Highlands	Conservation status of the lesser-prairie chicken <i>J. McCreight</i>

		<i>J. Mouser*</i>	
3:20	An overview of genetic mark-recapture and dietary habit studies of Ozark Region black bears <i>E. Artz**</i>	Predation of Invasive White Perch in Sooner Reservoir: Preliminary Results <i>N. Copeland</i>	The American burying beetles decline and how conservation banks are mitigating for its incidental take <i>A. Smith</i>
3:40	Break		
4:00	Business Meetings (see page 2 for locations)		
5:30	Adjourn		
6:30	Banquet (Rooms 9, 10, 11, 12)		

Poster Presentations

Cox Convention Center Lobby – Thursday, February 25, 2016

Author(s)	Title
Seth Coffey	App: RxBurnTracker
Glen Hensley, William P. Johnson, and Paige M. Schmidt	Snowy plover abundance and distribution on salt flats of Salt Plains NWR
Plant Taxonomy Students of Southwestern Oklahoma State University	Ranking plants to teach botany: Use of the United Plant Savers As-Risk Assessment Tool as an educational project
Melani Knisley	<i>Cyclanthera dissecta</i> : Population dynamics and fluctuations in response to environment and neighboring communities
Jeffrey Tibbits & Clayton Porter	Metrics used to determine prey size in food habit studies
Megan Knight and Andy Dzialowski	Periphyton assessment and growth in a restored stream in Stillwater, Oklahoma
Kris Patton, Joanne Ryan and Justin Roach	Impacts of the 2015 Flood on Tishomingo National Wildlife Refuge

2016 OKNRC Oral Presentations

Friday, February 26, 2016

Session	Landscape Conservation Design	Distributions and Habitat use	Fire on the Landscape
Room	1-2	3	4-5
8:00	Landscape conservation design as a framework for collaborative conservation <i>N. Athearn</i>	Annual space use and migration patterns of blue suckers, <i>Cycleptus elongates</i> , in the lower Red River, Oklahoma <i>J. Dyer</i>	The Oklahoma Prescribed Burn Association <i>R. Stevens</i>
8:20	Watershed-based assessments and planning: An approach to develop an integrated aquatic and terrestrial strategy for conservation delivery <i>J. Broska</i>	Expanding ecological niche models to predict suitable environments for black bears across Oklahoma <i>D. Techentin**</i>	The coming use of UAS in prescribed fire <i>M. Masters</i>
8:40	Improved ecological systems maps for planning and management in Texas and Oklahoma <i>D. Diamond</i>	Habitat associations of two pelagic broadcast spawning cyprinids in the Arkansas River drainage <i>D. Logue*</i>	Fire frequency in the Cross Timbers: Avian responses in Okmulgee, Oklahoma <i>C. Laughlin**</i>
9:00	Ecological studies in the Red River Basin <i>S. Brewer</i>	Fish research on the Lower Pecos River <i>T. Patton</i>	Cedar mortality comparing growing and dormant season fires <i>J. Weir</i>
9:20	River reservoir connectivity: Implications of aquatic productivity in an altered river environment –Use of river-reservoir interface habitats by larval and juvenile fishes: influence of lateral connectivity and multi-scale environmental conditions <i>A. Pease</i>	A bioenergetic model to evaluate management strategies for wintering waterfowl at Sequoyah NWR <i>D. Taylor</i>	Native versus invasive congeneric plants: Implications for ecosystem services <i>J. Kaplan**</i>
9:40	Break		
Session	Landscape Conservation Design	Energy and Climate Change	Stream and Landscape Conservation
Room	1-2	3	4-5

10:00	Landscape planning to inform actions: State wildlife action plans <i>C. Edwards</i>	The effects of climate change on the distribution of the red-spotted toad (<i>Anaxyrus punctatus</i>) <i>M. Curd**</i>	Influence of flow regime alterations on fish assemblages and the abiotic structure of streams <i>N. Farless*</i>
10:20	Integrating grassland conservation for bird and human landscapes: Disruptive innovation in bird conservation. <i>J. Giocomo</i>	Ecological pinch points restrict usable space of a ground-nesting bird <i>E. Tanner**</i>	We're all downstream: Strategic headwater protection of the Blue River <i>J. Tucker</i>
10:40	Integration of efforts: Utilizing a multi-state approach to landscape design to inform conservation for future generations <i>B. Bartush</i>	Tolerances of Oklahoma fishes for harsh environmental conditions related to their local and regional distributions, and potential impacts of climate change <i>W. Matthews</i>	Predator densities and implications for quail conservation in the Great Plains <i>F. Atuo**</i>
11:00	Data-driven assessment of species imperilment, the role of the Oklahoma Natural Heritage Inventory <i>B. Hoagland</i>	Interactive effects of severe drought, extreme soil- and air temperatures, and fire on little bluestem-dominated grasslands in SW Oklahoma <i>J. Dodd</i>	Historic Arkansas River flows in spring and summer 2015 deposit numerous paddlefish in metropolitan Tulsa, Oklahoma <i>J. Schooley</i>
11:20	White-tailed deer food habits in the Cross Timbers and prairies <i>M. Porter</i>	Green Wind Energy: Get the Site Right <i>C. Hise</i>	
11:40	Student Award Presentations (Rooms 1-2)		
12:00	Adjourn		

*Students competing for the AFS Student Presentation Award

**Students competing for the TWS Student Presentation Award