

54th Annual Meeting
of the
Texas Chapter
of **The Wildlife Society**



*The Relevance of Conservation to a Diverse
Society....How to Make It a Reality*

9–11 February 2018

Dallas, Texas

2017-2018 Executive Board

Executive Director	Don Steinbach
President	Corey Mason
President-elect	Jena Moon
Vice President	Tyler Campbell
Past President	Randy DeYoung
Secretary	John Kinsey
Treasurer	Terry Blankenship
Board Member-at-Large	Justin Dreibelbis
Archivist	Alan Fedynich

Program

John Silovsky and T. Wayne Schwertner

Local Arrangements

Bill Adams

Posters

Heather Mathewson and Penny Wilkerson

Meeting Schedule

Friday, 9 February 2018

8:00 AM – 5:00 PM	Registration	The Grand Hall
8:00 AM – 3:00 PM	Poster Set-up	The Grand Hall
8:00 AM – 4:00 PM	James G. Teer Leadership Institute	Cityview 7*
7:30 AM	Prescribed Fire Workshop Participants Meet	Dallas Ballroom A1
8:00 AM – 5:00 PM	Prescribed Fire Workshop	Offsite
8:00 AM – 10:00 AM	TWS Certification Workshop	Dallas Ballroom A2
8:00 AM – 12:00 PM	Program R Workshop	Dallas Ballroom A3
10:00 AM – 12:00 PM	Mobile Application Symposium	Dallas Ballroom D1
10:00 AM – 12:00 PM	TCTWS Executive Board Meeting	Chaparral Boardroom*
1:00 PM – 3:00 PM	Student Plant ID Contest	Houston Ballroom C
1:00 PM – 5:00 PM	Presentation Submission	The Grand Hall
1:00 PM – 5:00 PM	Art and Photo Contest Submission	The Grand Hall
2:00 PM – 4:00 PM	TCTWS Business Meeting	Dallas Ballroom A1
3:15 PM – 5:15 PM	Student Quiz Bowl Competition	Dallas Ballroom D2 & D3
4:00 PM – 5:00 PM	East Foundation Reception	State Room 4
4:00 PM – 5:00 PM	Southwest Section TWS	State Room 1
5:00 PM – 6:00 PM	SRSU Alumni and Borderlands Reception	State Room 2
5:00 PM – 6:00 PM	Women of Wildlife and Women of the Land	Majestic 1*
5:15 PM – 6:30 PM	Student Poster Judging	The Grand Hall
6:30 PM – 10:00 PM	President's Reception and Student-Mentor Mixer	The Grand Hall

Saturday, 10 February 2018

6:30 AM – 7:30 AM	Student Breakfast	Chaparral Main Room*
7:30 AM – 5:00 PM	Presentation Submission	The Grand Hall
7:30 AM – 5:00 PM	Raffle and Silent Auction	The Grand Hall
7:30 AM – 5:00 PM	Registration	The Grand Hall
7:30 AM – 1:45 PM	Professional Plant ID Contest	The Grand Hall
8:00 AM – 10:15 AM	Plenary Session	Dallas Ballroom BC
8:00 AM – 10:00 AM	Art and Photo Contest Submission	The Grand Hall
10:15 AM – 10:45 AM	Break	The Grand Hall
10:45 AM – 12:15 PM	Cottam Award Presentations	Dallas Ballroom BC
10:30 AM – 4:00 PM	Voting for Photo and Art Contest	The Grand Hall
12:15 PM – 1:45 PM	Lunch (On Your Own)	
12:30 PM – 1:45 PM	Past-Presidents Luncheon (Invitation Only)	San Antonio Ballroom A
1:45 PM – 3:15 PM	Technical Session A1	Dallas Ballroom A3
1:45 PM – 3:15 PM	Technical Session B1	Dallas Ballroom D3
1:45 PM – 3:00 PM	Technical Session C1	Dallas Ballroom A1
1:45 PM – 3:00 PM	Technical Session D1	Dallas Ballroom D1
1:45 PM – 3:45 PM	Conservation Affairs Committee	San Antonio Ballroom B
3:15 PM – 3:45 PM	Break	The Grand Hall

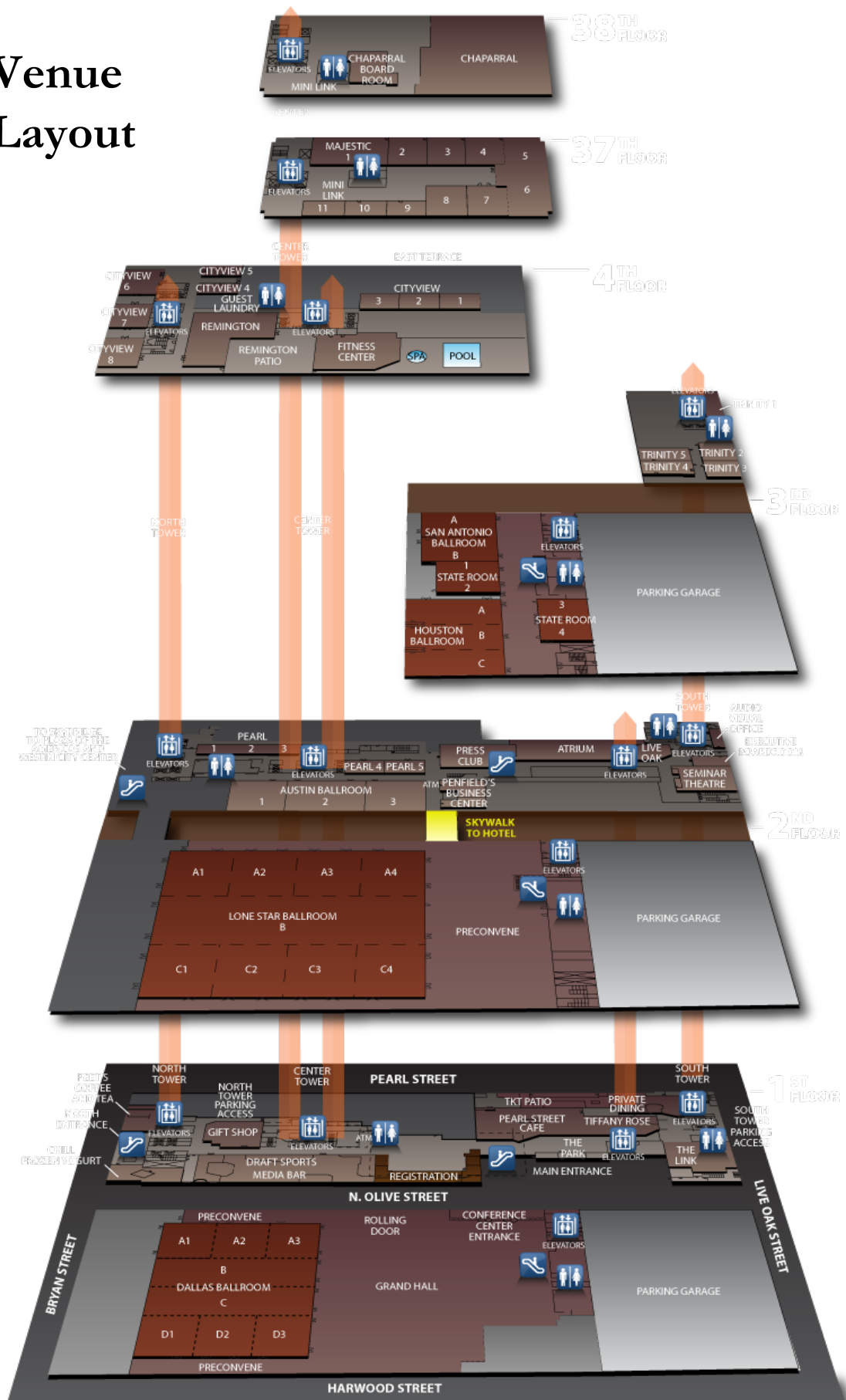
3:45 PM – 5:00 PM	Technical Session A2	Dallas Ballroom A3
3:45 PM – 5:00 PM	Technical Session B2	Dallas Ballroom D3
3:45 PM – 4:45 PM	Technical Session C2	Dallas Ballroom A1
3:45 PM – 5:00 PM	Technical Session D2	Dallas Ballroom D1
4:00 PM – 5:30 PM	Art and Photo Contest Pick-up	The Grand Hall
5:30 PM – 7:00 PM	Awards Ceremony	Dallas Ballroom BC
7:00 PM – 10:00 PM	Awards Reception	The Grand Hall

Sunday, 11 February 2018

7:00 AM – 7:30 AM	Fellowship of Christian Conservationists	Pearl 1*
7:30 AM – 10:00 AM	Registration	The Grand Hall
8:00 AM – 9:30 AM	Technical Session A3	Dallas Ballroom A3
8:00 AM – 9:30 AM	Technical Session B3	Dallas Ballroom D3
8:00 AM – 9:30 AM	Technical Session C3	Dallas Ballroom A1
8:00 AM – 9:30 AM	Technical Session D3	Dallas Ballroom D1
9:30 AM – 10:00 AM	Break	The Grand Hall
10:00 AM – 11:30 AM	Technical Session A4	Dallas Ballroom A3
10:00 AM – 11:30 AM	Technical Session B4	Dallas Ballroom D3
10:00 AM – 11:00 AM	Technical Session C4	Dallas Ballroom A1
8:00 AM – 2:00 PM	James G. Teer Leadership Institute	Cityview 7*
8:00 AM – 10:00 AM	Poster Removal	The Grand Hall
9:00 AM – 11:00 AM	TCTWS Executive Board Meeting	Chaparral Boardroom*
11:30 AM	Adjourn	

*Rooms marked with an asterisk are located in the Sheraton Hotel. All others are in the convention space.

Venue Layout



Saturday, 10 February 2018

PLENARY SESSION DALLAS BALLROOM BC MODERATOR: JOHN SILOVSKY

- 8:00** **Welcome and Introduction** – Corey Mason, President, Texas Chapter of the Wildlife Society
- 8:10** **Steve Williams** – President, Wildlife Management Institute
- 8:35** **Greg Simons** – Owner, Wildlife Systems, Inc.
- 9:00** **John McDonald** – President, The Wildlife Society
- 9:25** **Tina Yturria Buford** – Director of Education, East Foundation
- 9:50** **Panel Discussion and Q&A**
- 10:15** **Break**

CLARENCE COTTAM AWARD COMPETITION DALLAS BALLROOM BC MODERATOR: JOHN KINSEY

- 10:45** **Breeding Bird Response to Post Oak Savanna Restoration in Eastern Texas 8 Year Post-management**, Courtney K. McInnerney, Christopher Comer, and Jeffery Gunnels
- 11:00** **The Importance of Unbiased Sampling for Informing Conservation Policy: A Case Study with Jollyville Plateau Salamanders**, Zachary C. Adcock and Michael R. J. Forstner
- 11:15** **Analysis of Allelic Variation in Prion Protein Gene of Texas Mule Deer**, Gael A. Sanchez, Randall W. DeYoung, Damon L. Williford, David G. Hewitt, Timothy E. Fulbright, Humberto Perotto-Baldiveiso, Louis A. Harveson, and Shawn Gray
- 11:30** **Taking Them Under My Wing: Integrating Wild Bird Conservation Curriculum into the Sixth and Seventh Grade Classroom**, Janel L. Ortiz, April A. Torres Conkey, Leonard A. Brennan, La Vonne Fedynich, Marybeth Green
- 11:45** **Factors Affecting Detection Probability and Abundance of White-winged Doves in Texas**, Conor J. McInnerney, Heather A. Mathewson, Thomas W. Schwertner, Shaun L. Oldenburger, Mike Frisbie, Jared D. Hall
- 12:00** **Modeling Translocation Strategies for Pronghorn Populations in the Trans-Pecos, Texas**, Philip J. Boyd, Patricia Moody Harveson, Louis A. Harveson, Whitney J. Gann, Shawn S. Gray
- 12:15** **Lunch**

SESSION A1: CONSERVATION AND MANAGEMENT OF QUAIL
DALLAS BALLROOM A3
MODERATOR: JIM RAY

- 1:45** **Evaluation of Land-Restoration Practices on Northern Bobwhite Survival and Productivity in North-central Texas**, Danielle E. Belleny, Heather A. Mathewson, Jeff B. Breeden, John Tomecek, Thomas W. Schwertner, and Jim Giocomo
- 2:00** **Influences of Temperature on Resource Selection by Northern Bobwhites**, Brandon J. Palmer, Benjamin R. Olsen, Ellart J. Vreugdenhil, Geron G. Gowdy, Timothy E. Fulbright, Eric D. Grahmann, Fidel Hernandez, Michael W. Hehman, and David B. Wester
- 2:15** **Monitoring Changes in Northern Bobwhite Density and Vegetation Structure Within a Large-scale Experimental Grazing Study in South Texas**, Andrea Bruno, Leonard A. Brennan, Michael L. Morrison, Eric D. Grahmann, and Andrew N. Tri
- 2:30** **Impacts of Red Imported Fire Ants on Northern Bobwhites**, Kelly M. Redmond, Nicole A. Hansen, William L. Lutz, Taylor R. Shirley, Andrew P. Nicholson, Eric D. Grahmann, Fidel Hernandez, Leonard A. Brennan, Timothy Anderson, Kirk Feuerbacher, and Michael E. Morrow
- 2:45** **Foraging Site Selection of Montezuma Quail in the Capitan Mountain of New Mexico**, Karlee D. Cork and Ryan S. Luna
- 3:00** **Canopy Cover Selection of Montezuma Quail in the Capitan Mountains of New Mexico**, Elizabeth Oaster, Karlee Cork, Ryan S. Luna, Ryan O'Shaughnessy, and Dan Foley

**SESSION B1: CONSERVATION AND MANAGEMENT OF NONGAME AND
NON-NATIVE MAMMALS**
DALLAS BALLROOM D3
MODERATOR: WHITNEY GANN

- 1:45** **Exploring Detailed GPS Collar Data Analysis of Movements to Approximate Visual Observation Results Using Dama Gazelle as the Subject**, Elizabeth Cary Mungall and Christian Mungall
- 2:00** **MATLAB-based Analysis Techniques for Detailed Investigations of Group Constitution and Daily Movements of Gazelles**, Christian Mungall and Elizabeth Cary Mungall
- 2:15** **Determining the Seasonal Diets of Waterbuck Located in Central Texas Using Microhistological Analysis**, Kaitlin N. Lopez, James Gallagher, Dittmar Hahn, David Rodriguez, and Thomas R. Simpson

- 2:30 **Baseline Activity of Cave Myotis Colonies Prior to the Arrival of White-nose Syndrome, Lilianna K. Wolf**, Melissa B. Meierhofer, Brian L. Pierce, Joseph M. Szewczak, Jonah W. Evans, and Michael L. Morrison
- 2:45 **Baseline Data on Overwintering Bats and Roosts in Texas**, Melissa B. Meierhofer, Krysta D. Demere, Brian L. Pierce, Joseph M. Szewczak, Jonah W. Evans, Michael L. Morrison
- 3:00 **Naturalization of North American Porcupines in Texas, Effects of Rangeland, and Management Techniques**, Andrea E. Montalvo and Roel R. Lopez

SESSION C1: HUMAN DIMENSIONS AND HUMAN-WILDLIFE CONFLICTS I
DALLAS BALLROOM A1
MODERATOR: RICHARD HEILBRUN

- 1:45 **When Worlds Collide: Bird–Window Collision Mortality on a Continental Scale**, April A. Conkey, Stephen B. Hager, Bradley J. Cosentino, et al.
- 2:00 **An Analysis of Factors Associated with Wildlife Road Mortalities in South Texas**, Trinity D. Livingston, Kevin Ryer, Richard J. Kline, and John Young, Jr.
- 2:15 **Analytical Comparison of Carnivore-Human Conflict Management**, Elliott A. Foxley
- 2:30 **Wildlife and Habitat Management Program at Dallas/Fort Worth International Airport, Texas: Mitigation Efforts to Minimize Wildlife Strikes with Aircraft**, Hannah M. Ashbaugh, and Catherine A. Boyles
- 2:45 **Nuisance American Alligators and Evaluation of Translocation as a Management Strategy**, Cord B. Eversole, Scott E. Henke, Selma N. Glasscock, Randy L. Powell, David B. Wester, and Bart M. Ballard
- 3:00 **Vacant**

SESSION D1: HABITAT AND VEGETATION MANAGEMENT
DALLAS BALLROOM D1
MODERATOR: DEVIN ERXLEBEN

- 1:45 **Comparison of Season of Burning Effects on Mortality and Recruitment of Gulf Cordgrass**, Jose S. Avila-Sanchez, Victoria L. Haynes, Sandra Rideout-Hanzak, David B. Wester, Jose A. Ortega-S, and Tyler A. Campbell
- 2:00 **Regrowth of Angleton Bluestem Following Warm Season Prescribed Burning**, Jose S. Avila-Sanchez, Zachary Pearson, Heather N. Sanders, Chase H. Walther, Sandra Rideout-Hanzak, David B. Wester, and Terry Blankenship

- 2:15 **Transforming Mesquite-Texas Wintergrass-Dominated Plant Communities into Native Grassland Bird Habitat**, Michael F. Machart, Darrel B. Murray, and James P. Muir
- 2:30 **Analysis of Unmanned Aerial System Imagery to Map Emergent Aquatic Vegetation in a Constructed Wetland**, Kristy A. Kollaus, Thomas C. Heard, Rachel Williams, Lucas Chavez, Matthew Symmank, and Thomas B. Hardy
- 2:45 **Use of Ground Juniper in Wildlife and Livestock Feeds**, Jessica L. Glasscock , David G. Hewitt, Travis R. Whitney, Susan M. Cooper, Fred C. Bryant, and Christina M. Toenjes
- 3:00 **Vacant**

SESSION A2: CONSERVATION AND MANAGEMENT OF MIGRATORY GAMEBIRDS
DALLAS BALLROOM A3
MODERATOR: BRIAN PIERCE

- 3:45 **Annual Survival, Recover, and Molt Chronology of White-winged Doves in Texas**, Jared D. Hall, Heather A. Mathewson, Shaun L. Oldenburger, Thomas W. Schwertner, and Mike Frisbie
- 4:00 **An Examination of Long-distance Flights of Sandhill Cranes During Winter on the Southern High Plains of Texas and New Mexico**, Kathryn J. Brautigam, Blake A. Grisham, William P. Johnson, Dan P. Collins, Shaun Oldenburger, Jude Smith, and Warren C. Conway
- 4:15 **Autumn and Wintering Movement Ecology of Gulf Coast Subpopulation Sandhill Cranes**, Emily D. Wells, Bart M. Ballard, Shaun L. Oldenburger, Daniel P. Collins, David A. Brandt, Aaron T. Pearse, Humberto L. Perotto-Baldivieso, and David Wolfson
- 4:30 **Characterization of Waterfowl Forage and Carrying Capacity Estimates for Stock Ponds of the MT7 Ranch, Stevens County, Texas**, James R. Morel, Samantha S. Kahl, Blake A. Grisham , Kevin J. Kraai, Daniel P. Collins, and Warren C. Conway
- 4:45 **Winter Movements and Habitat Use by Greater White-fronted Geese**, Jay A. VonBank, Bart M. Ballard, Kevin J. Kraai, Mitch D. Weegman, Daniel P. Collins, and Humberto L. Perotto-Baldivieso

SESSION B2: CARNIVORE ECOLOGY AND MANAGEMENT
DALLAS BALLROOM D3
MODERATOR: JOHN TOMECEK

- 3:45 **Status of Swift Foxes in Northwestern Texas**, Gregory C. Pavur, Philip S. Gipson, Souparno Ghosh, Colton D. Laws, John T. Baccus, Perna Gamage, and Manuel De Leon

- 4:00 **Assessment of the Condition of Artificial Escape Dens and Use by Swift Foxes 10 Years Post-establishment**, Colton D. Laws, Greg Pavur, Philip S. Gipson, John T. Baccus, Souparno Ghosh, and Kevin Mulligan
- 4:15 **Spatial Ecology and Landscape-Scale Behavior of Coyotes in South Texas**, Justin T. French and John M. Tomecek
- 4:30 **Environmental Factors Affecting Mesopredator Occupancy in an Urban Area on the Southern High Plains of Texas**, Christopher R. Carter, Warren C. Conway, Mark C. Wallace, and Robert D. Bradley
- 4:45 **Simulation of Black Bear Dispersal from Populations in Louisiana, Arkansas, and Oklahoma to Areas of Suitable Habitat in East Texas**, Tanh T. Nguyen, Caitlin Glymph, Christopher E. Comer, and Daniel G. Scognamillo

SESSION C2: HUMAN DIMENSIONS AND HUMAN-WILDLIFE CONFLICTS II
DALLAS BALLROOM A1

MODERATOR: APRIL CONKEY

- 3:45 **The Influence of Livestock Protection Dogs on Mesocarnivore Activity in the Edwards Plateau of Texas**, Nick Broman, John M. Tomeček, and Justin French
- 4:00 **Public Duck Hunter Demographics at Richland Creek Wildlife Management Area, Texas**, Matthew E. Symmank
- 4:15 **Human Dimensions of Conservation Photographers in Wildlife Management**, William C. Colson, April A. Torres Conkey, Scott E. Henke, Richard L. Miller, Glenn Perrigo, and La Vonne Fedynich
- 4:30 **Recovering America's Wildlife Act: A Game-Changing Opportunity to Expand Wildlife Management in Texas**, John Shepperd
- 4:45 **Vacant**

SESSION D2: INNOVATIONS IN WILDLIFE MANAGEMENT I
DALLAS BALLROOM D1

MODERATOR: DARREL MURRAY

- 3:45 **Invisible Larval Zebra Mussels: What Dogs' Noses Can Tell Us About What We Can't See**, Laura J. Speight and Aimee Hurt
- 4:00 **Using Morphological Measurements to Distinguish Between Sexes of Grassland Birds in the Chihuahuan Desert, Texas**, Jacob C. Locke, Kaitlyn M. Williams, and Ryan S. Luna

- 4:15 **Reducing Cowbird Control Costs at Fort Hood: Implications for Black Capped Vireo Recovery**, Scott G. Summers and David A. Cimprich
- 4:30 **Improving Avian Species Distribution Models by Incorporating Biotic Interactions**, Rachel R. Fern, Michael L. Morrison, Jeremy Baumgardt, and Tyler A. Campbell
- 4:45 **Modeling Audible Detection of Prairie Grouse Booming Informs Survey Design**, Matthew J. Butler and R. Douglas Holt

Sunday, 11 February 2018

SESSION A3: CONSERVATION AND MANAGEMENT OF NONGAME BIRDS I

DALLAS BALLROOM A3

MODERATOR: JIM MUELLER

- 8:00 **Wintering Plover Use of a Public Beach After Hurricane Harvey: Preliminary Observations on Changes in Habitat and Human Disturbance**, Amanda D. Hackney, Susan Heath, Kacy Ray, and Kristen Vale
- 8:15 **Interactive Effects of Severe Drought and Grazing on the Life History Cycle of a Bioindicator Species**, Sarah Fritts, Blake Grisham, Robert D. Cox, Clint W. Boal, David A. Haukos, Patricia McDaniel, Christian A. Hagen, and Daniel U. Greene
- 8:30 **The Influence of Age Structure on Pairing and Territory Success of an Endangered Songbird**, Drew S. Finn
- 8:45 **Conservation and Mitigation Effects on Rates of Golden-cheeked Warbler Habitat Loss**, Nancy A. Heger and Tom Hayes
- 9:00 **Influences of Catastrophic Weather Events on the Endangered Attwater's Prairie Chicken**, Jennifer M. Romero, Michael L. Morrison, and Michael E. Morrow
- 9:15 **American Kestrel Nest Survival and Productivity in the Llano Estacado of Texas**, Shea D. Mullican, Clint W. Boal, Warren C. Conway, and Richard D. Stevens

SESSION B3: CONSERVATION AND MANAGEMENT OF BIG GAME I

DALLAS BALLROOM D3

MODERATOR: DONALD BEARD

- 8:00 **Status Update: The Collaborative Trans-Pecos Pronghorn Restoration Effort**, Whitney J. Gann, Louis A. Harveson, and Shawn S. Gray
- 8:15 **Available Forage and Vegetative Structure in the Northern Sacramento Mountains, and the Potential Impact on Neonatal Pronghorn Survival**, Courtney L. Ramsey, Warren C. Conway, Robert D. Cox, James W. Cain, III, and Robert D. Bradley

- 8:30 Rangeland Suitability Model for the Texas State Bison Herd in Caprock Canyons State Park,** aLisa M. McAnally, Heather A. Mathewson, Thomas W. Schwertner, Jeff B. Breeden, Hemanta Kafley, and Donald Beard
- 8:45 Panhandle Mule Deer: A Survey of Body Condition, Size, Reproductive Output, and Antler Growth,** Levi J. Heffelfinger, Laura S. Warner, David G. Hewitt, Shawn S. Gray, Warren C. Conway, Timothy E. Fulbright, Randy W. DeYoung, and Louis A. Harveson
- 9:00 Influence of Agriculture on Mule Deer Diets and Nutrition in the Texas Panhandle,** Jacob R. Lampman, Laura S. Warner, Louis A. Harveson, Whitney J. Gann, David G. Hewitt, Warren C. Conway, and Shawn S. Gray
- 9:15 The Other Supplemental Feed: How Crop Use Affects Mule Deer Movements in the Texas Panhandle,** Laura S. Warner, Levi J. Heffelfinger, Jacob R. Lampman, Dave G. Hewitt, Shawn S. Gray, Dana J. Wright, Warren C. Conway, Tim E. Fulbright, Randy W. DeYoung, and Louis A. Harveson

**SESSION C3: CONSERVATION AND MANAGEMENT OF REPTILES AND
AMPHIBIANS I
DALLAS BALLROOM A1
MODERATOR: MIKE MILLER**

- 8:00 Population Structure, Distribution, and Habitat Use of American Alligators at an Urban Coastal Site,** Cord B. Eversole, Scott E. Henke, Selma N. Glasscock, Randy L. Powell, David B. Wester, and Bart M. Ballard
- 8:15 A Theoretical Population and Harvest Model for American Alligators,** Cord B. Eversole, Scott E. Henke, Benjamin L. Turner, Selma N. Glasscock, Randy L. Powell, David B. Wester, and Bart M. Ballard
- 8:30 Exploring Trade-offs Between Survival and Reproduction in Yellow Mud Turtles in Texas,** Jonathan A. Zenor, Richard T. Kazmaier, Mark J. Lange, and Trevor J. McVay
- 8:45 Neonate Cottonmouth Spatial Ecology and Habitat Selection: From Parturition to Hibernation,** Zackary J. Delisle, Dean Ransom, Lani Lyman-Henley, and Johanna Delgado-Acevedo
- 9:00 Niche Overlap in a Coastal Texas Aquatic Snake Community,** Logan D. Ediger, Richard T. Kazmaier, and Daniel P. Walker
- 9:15 Functional Distance and Establishment of Non-native Species with Complex Life Cycles,** Christopher M. Schalk, Carmen G. Montana, Kelsey Kralman, and Daniel J. Leavitt

SESSION D3: INNOVATIONS IN WILDLIFE MANAGEMENT II

DALLAS BALLROOM D1

MODERATOR: BLAKE MURDEN

- 8:00 Demonstration of a Multi-species, Multi-response State-and-transition Model Approach to Help Inform Wildlife Management**, Ashley M. Long, Melanie R. Colón, Tiffany M. McFarland, Helen T. Davis, Sean M. Lavery, Joseph A. Grzybowski, Heather A. Mathewson, and Michael L. Morrison
- 8:15 Potential Strike Hazard Posed by White-winged Doves to Military Aircraft in Central Texas**, Melanie R. Colon, Clay Thompson, and Ashley M. Long
- 8:30 Evaluations of Distance Sampling and Occupancy Modeling as Targets for a Long-term Monitoring Program for Bird Populations**, Jeremy A. Baumgardt, Michael L. Morrison, Leanord A. Brennan, and Tyler A. Campbell
- 8:45 Using Acoustic Monitors to Assess At-risk Species in Survey Locations with Limited Access**, Sarah J. Turner, Brian L. Pierce, Charles E. Dixon, Francisco A. Cartaya, and Krysta D. Demere
- 9:00 Environmental Influences on Age Differences Between Cementum Annuli and Tooth Replacement and Wear in White-tailed Deer**, Oscar Cortez, Aaron Foley, Charlie DeYoung, David G. Hewitt, and Randy DeYoung
- 9:15 Tooth Wear of White-tailed Deer Consuming Pelleted Ration and Browse Diet**, Sterling G. Spilinek and Floyd W. Weckerly

SESSION A4: CONSERVATION AND MANAGEMENT OF NONGAME BIRDS II

DALLAS BALLROOM A3

MODERATOR: WARREN CONWAY

- 10:00 Partitioning of Foraging Habitat Amongst Kingfishers Along the South Llano River, Texas**, Griffin D. Chodacki and Ben R. Skipper
- 10:15 Effects of Cover Type on Presence and Distribution of Grassland Birds in the Oaks and Prairies Region of Texas**, Helen Davis, Meta Griffin, James Giocomo, Kenneth Gee, Steven Riley, Anna Matthews, M. Clay Green, Jeff Raasch, and Robert Perez
- 10:30 Scaled Quail and Grassland Birds as Indicators of Grassland Health in the Chihuahuan Desert**, Kaitlyn M. Williams, Katherine J. Sauer, Ryan S. Luna, Ryan O'Shaughnessy, and Warren C. Conway
- 10:45 Habitat Associations of Migratory Birds in South Texas**, Samantha J. Wolfe, Arlene J. Arnold, Bart M. Ballard, Matthew J. Schnupp, and John T. Edwards

- 11:00** **Selection of Island Habitat by a Texas Population of Purple Martin During the Non-breeding Season**, James D. Ray, Kevin C. Fraser, Auriel Fournier, and Amanda Shave
- 11:15** **Vacant**

SESSION B4: CONSERVATION AND MANAGEMENT OF BIG GAME II
DALLAS BALLROOM D3
MODERATOR: JEFF BREEDEN

- 10:00** **Roosevelt Elk Use and Selection of a New Meadow in Redwood National and State Parks**, Aaron S. McGuire and Floyd W. Weckerly
- 10:15** **Social Dominance Affects Pelleted Feed Consumption by White-tailed Deer in South Texas**, Emily H. Belser, David G. Hewitt, Timothy E. Fulbright, Charles A. DeYoung, Thomas W. Boutton, David B. Wester, and Don A. Draeger
- 10:30** **Effects of White-tailed Deer Density and Deer:Feeder Ratio on Population Growth Rates**, Daniel B. Brown, Charles A. DeYoung, Timothy E. Fulbright, David G. Hewitt, Lindsey M. Phillips, and Don A. Draeger
- 10:45** **Effects of White-tailed Deer Density and Feeder Density on Antler Growth**, Ryan M. Rothstein, Charles A. DeYoung, David G. Hewitt, Timothy E. Fulbright, Lindsey M. Phillips, and Donnie A. Draeger
- 11:00** **Effects of White-tailed Deer and Supplemental Feeder Density on Wood Species Composition**, Onalise R. Hill, Lindsey M. Phillips, Timothy E. Fulbright, David G. Hewitt, Charles A. DeYoung, David B. Wester, and Don A. Draeger
- 11:15** **Does White-tailed Deer Browsing Result in Browse Lines and Changes in Mast Production of 3 Preferred South Texas Woody Plants?** Lindsey M. Phillips, Onalise R. Hill, Timothy E. Fulbright, David G. Hewitt, Charles A. DeYoung, and Don A. Draeger

SESSION C4: CONSERVATION AND MANAGEMENT OF REPTILES AND AMPHIBIANS II
DALLAS BALLROOM A1
MODERATOR: CONOR MCINNERNEY

- 10:00** **Relationships Between Canopy Cover and Herpetofauna in an Eastern Texas Woodland**, Erin E. Stiede and Richard T. Kazmaier
- 10:15** **Phylogeographic Structure of Spot-tailed Earless Lizards: 1 Species or 2?** Toby J. Hibbitts, Wade A. Ryberg, Johanna Harvey, Gary Voelker, Michelle Lawing, Connor S. Adams, Dalton B. Neuharth, Drew E. Dittmer, C. Michael Duran, Brad D. Wolaver, Jon Paul Pierre, Benjamin J. Labay, and Travis J. LaDuc

- 10:30 Home Range and Habitat Associations of the Spot-tailed Earless Lizard**, Danielle K. Walkup, Shelby Frizzell, Dalton Neuharth, Connor S. Adams, Timothy Johnson, Wade A. Ryberg, and Toby J. Hibbitts
- 10:45 Life in the Thornscrub: Movement, Home Range, and Territoriality of the Reticulate Collared Lizard**, Wade A. Ryberg, Timothy B. Garrett, Connor S. Adams, Tyler A. Campbell, Danielle K. Walkup, Timothy E. Johnson, and Toby J. Hibbitts
- 11:00 Peeping Herpetology: How to Spy on Black-spotted Newts and Other Herpetofauna**, Evan Bare and Richard Kline
- 11:15 Vacant**

POSTER SESSION

5:00 PM – 6:30 PM FRIDAY, 9 FEBRUARY (JUDGING)

8:00 AM – 5:30 PM SATURDAY, 10 FEBRUARY (DISPLAY ONLY)

GRAND HALL

ORGANIZERS: HEATHER MATHEWSON AND PENNY WILKERSON

- 01. Calling Phenology of the Common Pauraque in the Northernmost Part of Its Range**, Cory K. Adams, Daniel Saenz, Clifford E. Shackelford, and James D. Childress
- 02. Evaluating Effectiveness of Wildlife Crossings Using Camera Traps in South Texas**, Michelle E. Adcock, Joshua D. Renner, M. Clay Green, and Thomas R. Simpson
- 03. Behavioral Effects of Environmental Enrichment on Captive Northern Bobwhites**, Stefanie G. Aguallo, Kari D. Waddle, Heather A. Mathewson, and Kimberly Guay
- 04. Effects of Prescribed Fire on Texas Horned Lizard Habitat and Food Supply**, Wyatt L. Bagwell, Darrel Murray, David Kattes, and Heather Mathewson
- 05. Range Distribution Modeling for the Black-Spotted Newt**, Evan Bare, Richard Kline, Andrew Gluesenkamp, and Luis J. Peña
- 06. Effects of the Synthetic Estrogen, 17 α -ethinylestradiol, on Fountain Darter Populations**, Jennifer M. Borski, Andrew Richardson, Hsiao-Hsuan “Rose” Wang, and William E. Grant
- 07. Cost Analysis of Coyote Removal to Aid Cattle Production in Texas**, Kyle Brewster, Scott E. Henke, Alfonso Ortega-Santos, Benjamin L. Turner, and John M. Tomecek
- 08. Survey of Rancher Perceptions of Livestock-predator Conflicts in Texas**, Kyle Brewster, Scott E. Henke, Alfonso Ortega-Santos, Benjamin L. Turner, and John M. Tomecek
- 09. Pig Diets: Pig Tails Tell the Tale**, Julia K. Burchsted, David G. Hewitt, Thomas L. Boutton, Nathan P. Snow, Heather N. Sanders, and Humberto L. Perotto-Baldivieso
- 10. Multiple Scale Spatial Analysis of Rio Grande Wild Turkey Habitat in the Edwards Plateau of Texas**, David M. Campbell, Humberto L. Perotto-Baldivieso, Michael T. Page, Jaclyn Robles, Jose Mata, and X. B. Wu
- 11. Estimation of Anthropogenic and Catastrophic Effects on Florida Manatee**, Katherine Carbajal, Paola Camposeco, Jasmin Diaz-Lopez, Hsiao-Hsuan Wang, and William E. Grant
- 12. Breeding Bird Diversity and Density at Muleshoe National Wildlife Refuge**, Kaitlyn N. Cargol, William P. Johnson, Jude Smith, and Blake A. Grisham

13. **Abundance, Activity Patterns, and Interactions Among Felids, Cattle, Nilgai, Feral Hog, and Javelina**, Shelby B. Carter, Michael E. Tewes, Jason V. Lombardi, John P. Leonard, and Tyler A. Campbell
14. **Using Goals and Profitability to Determine What to Plant in Pastures**, Megan K. Clayton, A. Mac Young, Mac Young, Larry A. Redmon, and Forrest S. Smith
15. **Effects of Grazing Utilization, Precipitation, and Soil Texture on Forb Production in South Texas**, Jose G. Cortez, Jr., Ramon Saenz III, Dillan J. Drabek, Alfonso Ortega Sr., Timothy E. Fulbright, David G. Hewitt, and Tyler A. Campbell
16. **Fourteen Years of Monitoring Birdlife at the Gus Engeling Wildlife Management Area, Anderson County, Texas, Texas**, Clifford E. Shackelford, Curtis A. Daugherty, James J. Giocomo, Harry H. Haucke, and Kyle Brunson
17. **Developing Eastern and Rio Grande Wild Turkey Wintering Habitat Suitability Models in Northeast Texas**, Darrion M. Crowley, Humberto L. Perotto-Baldivieso, William P. Kuvlesky, Alfonso Ortega Santos, Leonard A. Brennan, and Nicholas R. Kolbe
18. **Nutritional Quality of Native and Winter Wheat Forage for Mule Deer in the Texas Panhandle**, Taylor S. Daily, Jacob R. Lampman, Warren C. Conway, and Thomas S. Janke
19. **An Evaluation of Dummy Nests for Northern Bobwhite Management**, Trenton L. Dragon, Bradley W. Kubecka, and Dale Rollins
20. **Potential Effects of Hantavirus Infections on Activity Patterns of Cotton Rats**, Kristin E. Dyer, Matthew T. Milholland, and Iván Castro-Arellano
21. **Genetic Evaluation of White-tailed Deer Associated with Chronic Wasting Disease in Medina County, Texas**, Jae Edlin, Randy W. DeYoung, Damon L. Williford, and Mitch A. Lockwood
22. **Prey Preferences of Western Cottonmouths in a Constructed Wetland in Northeast Texas**, Eric W. Engelhardt, Zackary Delisle, Lani Lyman-Henley, and Johanna Delgado-Acevedo
23. **Effect of Red Imported Fire Ant Presence on Success and Depredation of American Alligator Nests: Evidence of a Possible Predator Deterrent**, Cord B. Eversole and Scott E. Henke
24. **Predator and Mesocarnivore Occurrence at Protein Feeders in the Trans-Pecos, Texas**, Christian A. Guajardo and Thomas S. Janke
25. **Direct Impact from Hurricane Harvey on Gamebirds in the Coastal Prairie of Texas**, Nicole A. Hansen
26. **Population Declines of Breeding Snowy Plovers on the Southern Great Plains of Texas, New Mexico, and Oklahoma**, Kristen M. Heath, Jeffrey S. Beauchamp, Glen Hensley, William P. Johnson, Sarah T. Saalfeld, and Warren C. Conway
27. **Rapidly Increasing Invasion by Chinese Tallow in Southeast United States**, Samantha M. Heldman, Miranda Peterson, Christopher Vasquez, Zakary Derouen, Hsiao-Hsuan "Rose" Wang, William E. Grant, and William E. Rogers
28. **Influence of Green-flowered Milkweed Health and Quality on Monarch Butterfly Larval Survivorship**, Kelsey Helgerson, Jeremy Mayhew, Howard Crenshaw, and Jeff Kopachena
29. **Invertebrate Diversity and Community Composition of Stock Ponds in the Oaks and Prairies Ecoregion**, Adriel A. Herrera, James R. Morel, Kevin J. Kraai, and Warren C. Conway
30. **Determining a Sustainable Harvest Rate for Collared Peccary**, Matthew Hewitt, Austin Killam, Randy DeYoung, David Hewitt, and Stephen Lange

31. **Infectivity and Transmission of Reticuloendotheliosis Virus in Northern Bobwhite**, Melissa K. Hopkins, Brittany Stewart, Camille Trautman, Josh Katuri, Thomas W. Schwertner, Jeff Breeden, and Dustin Edwards
32. **Modeling Foraging Habitat for Shorebirds in the Laguna Madre**, Mikayla M. House and Bart M. Ballard
33. **Effects of Red Imported Fire Ants on the Arthropod Community Associated with Green-flowered Milkweed Plants Occupied by Monarch Butterfly Eggs and Larvae**, Kalynn L. Hudman, Howard Crenshaw, Jeremy Mayhew, and Jeff Kopachena
34. **Growth Patterns of Captive Hatchling Alligators**, Javier Huerta, David Campbell, Scott E. Henke, and Cord B. Eversole
35. **Raccoon Roundworm: An Occupational Hazard to Captive Wildlife Caregivers**, Javier Huerta, Tiffany Weisheit-Pope, Austin Killam, Scott E. Henke, Clayton D. Hilton, and Humberto L. Perotto-Baldivieso
36. **Long-term Snowy Plover Surveys at Bitter Lake National Wildlife Refuge**, William P. Johnson, Jeffrey S. Beauchamp, Daniel P. Collins, Jeffrey I. Sanchez, Kristen M. Heath, and Warren C. Conway
37. **Estimation of Deepwater Horizon Oil Spill Effects on Population Dynamics of the Loggerhead Sea Turtle**, Madeline L. Jones, Hannah Gerke, Hsiao-Hsuan "Rose" Wang, and William E. Grant
38. **Social Hierarchy Position of Lactating White-tailed Does in an Enclosed Population at Pelleted Feed Stations**, Austin K. Killam, Ty Elliott, Emily H. Belser, David G. Hewitt, Timothy E. Fulbright, Charles A. DeYoung, David B. Wester, and Don A. Draeger
39. **Influence of Forest Structural Characteristics on Hardwood Growth in Open Pine Woodlands**, Megan L. Knippers, Landon R. Emmert, Tamara B. Wood, Christopher E. Comer, and Roger W. Perry
40. **Preference by White-tailed Deer among Acorns from 6 Common Oaks**, Megan L. Knippers, Christopher E. Comer, Jeremy P. Stovall, David G. Hewitt, Brandon Billeck, and Marshall Woodruff
41. **New Host Record of Mesocestoides in North American Birds: Northern Bobwhite and Scaled Quail**, Bradley W. Kubecka, Nicole J. Traub, Vasyl V. Tkach, Taylor R. Shirley, Alan M. Fedynich, and Dale Rollins
42. **Understanding Human and Livestock Use of Space in Tiger Habitat in Chitwan National Park, Nepal: An Occupancy Modeling Approach**, Tiffany C. Leitner and Hemanta Kafley
43. **Macro- and Micro-habitat Effects of Ocelot Occupancy**, Jason V. Lombardi, Michael E. Tewes, Humberto L. Perotto-Baldivieso, Jose M. Mata, Shelby Carter, Daniel Kunz, and Tyler A. Campbell
44. **Grain Sorghum Residual Availability for a Migrating Population of Sandhill Cranes Wintering on the Southern High Plains**, Ian A. Mack, Kathryn J. Brautigam, Blake A. Grisham, William P. Johnson, Dan P. Collins, Shaun Oldenburger, Jude Smith, and Warren Conway
45. **Biological Invasion and Coexistence in the Southeast United States**, Yovana Marinkovic, Alexandra Bishop, Katherine Carbajal, Hsiao-Hsuan "Rose" Wang, Tomasz E. Koralewski, and William E. Grant

46. **Utilization of Anthropogenic Guzzlers by Wildlife in the Black Gap Complex, Texas,** Brian K. Metz, John Clayton K. Campbell, and Thomas S. Janke
47. **Pronghorn Diet Composition Using Metabarcoding Analysis,** Gary L. Mizer, Warren C. Conway, Anthony P. Opatz, Timothy E. Fulbright, Randy W. DeYoung, Humberto L. Perotto-Baldivieso, and Shawn Gray
48. **Evaluations of Morbillivirus Exposure to Bottlenose Dolphins Following the Deepwater Horizon Oil Spill,** Annie M. Montgomery, Hsiao-Hsuan "Rose" Wang, and William E. Grant
49. **Migratory Connectivity of Golden-cheeked Warblers,** James M. Mueller, John N. Macey, Ashley M. Long, Nathan A. Grigsby, and Scott M. Rowin
50. **American Kestrel Nest Survival and Productivity in the Llano Estacado of Texas,** Madeleine Thornley, Shea Mullican, and Clint Boal
51. **Influence of Arthropod Community Structure on the Survival of Monarch Butterfly Eggs and Larvae in Northeast Texas,** Misty Nixon, Howard Crenshaw, Jeremy Mayhew, and Jeff Kopachena
52. **Evaluation of Home-Range Estimators for the Analysis of Resource Selection by Pronghorns in the Texas Panhandle,** Anthony P. Opatz, Timothy E. Fulbright, Gary L. Mizer, Randy W. DeYoung, Humberto L. Perotto-Baldivieso, Warren C. Conway, and Shawn S. Gray
53. **Spatial Ecology of Wild Turkey Habitat in South Texas,** Michael T. Page, Humberto L. Perotto-Baldivieso, William P. Kuvlesky Jr., Leonard A. Brennan, Alfonso Ortega-S, and Jaclyn Robles
54. **Vegetation Attributes Providing Thermal Refugia for Bobwhites,** Brandon J. Palmer, Ellart J. Vreugdenhil, Geron G. Gowdy, Benjamin R. Olsen, Eric D. Grahmann, Timothy E. Fulbright, Fidel Hernandez, Michael W. Hehman, and David B. Wester
55. **Overwinter Survival and Habitat Use of Baird's and Grasshopper Sparrows in the Marfa Grasslands, Texas,** Denis J. Perez-Ordóñez, Fabiola Baeza-Tarin, Mieke Titulaer, Louis A. Harveson, and Erin H. Strasser
56. **Prevalence of Avian Trichomoniasis in 3 Species of Dove in and around the City of San Angelo, Texas, USA,** Kelly A. Persinger and Ben R. Skipper
57. **Returning the Louisiana Pine Snake to Restored Habitat,** Josh B. Pierce, Craig Rudolph, Steve Reichling, and Emlyn Smith
58. **Home Range of Translocated Pronghorns in the Trans-Pecos Region of Texas,** Howell A. Pugh, Louis A. Harveson, Whitney J. Gann, and Shawn S. Gray
59. **Evaluation of Red Imported Fire Ant Treatment for Gamebirds,** Kelly M. Redmond, Nicole A. Hansen, William L. Lutz, Taylor R. Shirley, Andrew P. Nicholson, Eric D. Grahmann, Fidel Hernandez, Leonard A. Brennan, Timothy Anderson, Michael E. Morrow, Kirk Feuerbacher, and Jay Kelso
60. **Assessing Wildlife Permeability of a South Texas Highway,** Joshua D. Renner, Michelle E. Adcock, Michael C. Green, and Thomas R. Simpson
61. **Wildlife Use of Road Mitigation Structures Pre- and Post-construction Along a South Texas Highway,** Anna D. Rivera, Tiffany Cogan, Kevin Ryer, John H. Young, and Richard J. Kline
62. **Roost Use by Rafinesque's Big-eared Bats in an Upland Forest of South Carolina,** Jacob A. Rogers, Eric A. Winters, and Susan C. Loeb

63. **Sifting Through the Soup: Developing an Environmental DNA Assay for Threatened Amphibians**, Krista Ruppert, Evan Bare, Richard Kline, and Saydur Rahman
64. **Landscape Genetic Analysis of Mule Deer to Guide Management for Chronic Wasting Disease**, Gael A. Sanchez, Randall W. DeYoung, Damon L. Williford, David G. Hewitt, Timothy E. Fulbright, Humberto Perotto-Baldivieso, Louis A. Harveson, and Shawn Gray
65. **Effects of Livestock Grazing on Grassland Abundance and Ecosystem Health**, Katherine J. Sauer, Kaitlyn M. Williams, Ryan O'Shaughnessy, Ryan S. Luna, and Dan Collins
66. **Wintering Birds at Restored and Unrestored Isolated Blackland Prairies on the Sam Houston National Forest in Texas**, Richard R. Schaefer, Clifford E. Shackelford, Howard Williamson, Craig Rudolph, Josh B. Pierce, and Rusty Plair
67. **Landscape Connectivity for Lesser Prairie Chickens on the Southern High Plains of Texas and New Mexico**, Lucas J. Schilder, Nancy E. McIntyre, Samuel Harryman, Christian A. Hagen, Russell Martin, Blake A. Grisham, and Clint W. Boal
68. **Influence of Black-tailed Prairie Dogs on the Abundance of Small Mammals in the Marathon Basin, Texas**, Julie R. Schmidt, Cullom S. Simpson, Thomas S. Janke, and Whitney J. Gann
69. **Survey of Helminth Parasites in Scaled Quail from Southern Texas**, Taylor R. Shirley, Nicole J. Traub, and Alan M. Fedynich
70. **Habitat-suitability Bounds for Northern Bobwhites in the Coastal Prairie of Texas**, Taylor R. Shirley, Kelly M. Redmond, Nicole A. Hansen, William L. Lutz, Andrew P. Nicholson, Eric D. Grahmann, Fidel Hernandez, Kirk Feuerbacher, Timothy Anderson, Leonard A. Brennan, and Michael E. Morrow
71. **New Research Partnerships to Increase Relevance to Urban Audiences and Widen Potential Employment Choices of Current Students**, Kelly C. Simon, David Buggs, and Richard Heilbrun
72. **Factors Influencing Elk Calf Bed Site Selection in a Landscape Changed by Wildfire and Restoration**, Sharon E. Smythe, James W. Cain III, Warren C. Conway, Mark A. Peyton, and Lance Bernal
73. **Could a Texas-driven National Security Effort Benefit Conservation of Ocelot?** Mitch Sternberg, Jonah Evans, and Hilary Swarts
74. **Effects of Food Enrichment on Aggressive Behavior of Captive Northern Bobwhite**, Cameron Strey, Stefanie G. Aguallo, Kari D. Waddle, Heather A. Mathewson, and Kimberly A. Guay
75. **The Use of Prescribed Fire, Herbicide Application, and Native Plants to Restore Bottomland Blackland Prairie in a Constructed Wetland Matrix**, Canaan A. Sutton and Johanna Delgado-Acevedo
76. **Investigating Factors that Influence Northern Bobwhite Chick Survival**, Veronica A. Urbanczyk, Brad Dabbert, and Theron Terhune
77. **Weather Patterns and Vegetation Structure Affect the Spatial Distribution of Small Mammals in a Lubbock, Texas Rangeland Site**, Katelyn R. Vedolich, and Kerry L. Griffis-Kyle
78. **Quail Habitat Restoration in Areas Dominated by Non-native Grass**, Ellart J. Vreugdenhil, Alexandra M. Sigg, Brandon J. Palmer, Geron G. Gowdy, Benjamin R. Olsen, Timothy E.

Fulbright, Eric D. Grahmann, Michael W. Hehman, Fidel Hernandez, Keith Pawelek, Forrest Smith, and David B. Wester

79. **Migration, Wintering Movements, and the First Return to the Breeding Range of Fledgling Swainson's Hawks**, Katheryn A. Watson, Clint W. Boal, and James D. Ray
80. **Testing Efficacy of Acoustic Deterrents for Reducing Bat Fatalities in Southern Texas**, Sara P. Weaver, Cris D. Hein, and Ivan Castro-Arellano
81. **Chorioptic Mange in White-tailed Deer**, Tiffany Weisheit-Pope, Scott E. Henke, and Clay Hilton
82. **Factors Influencing Nesting Success of Songbirds in a Bison-grazed Landscape**, Daniel C. Wilcox, Heather Mathewson, and Conor McInnerney
83. **Accumulation of Radiocesium in Bullfrog Tadpoles in a Contaminated Effluent Canal on the Savannah River Site**, Kaitlin C. Wilms, James C. Leaphart, Albert L. Bryan, and James C. Beasley
84. **Effects of Several Flavors on Feed Selection Behavior in Feral Hogs**, Mikayla R. Wommack, J. Baker, and Kimberly A. Guay
85. **A Carrying Capacity Estimate for Pronghorn Populations in the Trans-Pecos Region of West Texas**, Autumn E. Yarosz, Whitney J. Gann, Louis A. Harveson, and Shawn S. Gray
86. **Spatial Distributions of Nilgai Antelope Latrines: Implications for Control of Cattle Fever Ticks**, Lisa D. Zoromski, Randy W. DeYoung, John A. Goolsby, Aaron A. Foley, J. Alfonso Ortega-S, David G. Hewitt, and Tyler A. Campbell
87. **Identifying and Estimating Sorting Bias in Aquatic Invertebrate Samples**, Candice E. Zuniga, James R. Morel, Kevin J. Kraai, and Warren C. Conway

Sponsors of the 54th Meeting of the Texas
Chapter of The Wildlife Society

Gold



Silver



Bronze



Copper



Donny
Worthington

TLL Temple
Foundation

South Texas Quail Coalition
Annual Banquet and Fundraiser



25 August 2018

www.southtexasquailcoalition.org

Please Visit Our Exhibitors

GRAND HALL/PRECONVENE IN THE CONFERENCE CENTER, FIRST FLOOR

Audubon combines science, education, and policy to protect and restore habitats and implement policies that safeguard birds, other wildlife, and natural resources. In Texas we protect colonial waterbird populations, conserve the most important sites for birds, and reach thousands of students annually through conservation education at three urban Audubon Centers.



The **Caesar Kleberg Wildlife Research Institute (CKWRI)** is a wildlife research institute housed at Texas A&M University-Kingsville.

Dow AgroSciences offers a full line of products designed to suit any rangeland or wildlife habitat management situation, plus well-researched products and treatment options designed specifically to help our customers achieve success on their ranch or property.



Dow AgroSciences

The **East Foundation** supports wildlife conservation and other public benefits of ranching and private land stewardship. Our charitable activities are operated as an integrated program of research, education and outreach in pursuit of our mission of supporting wildlife conservation on native rangelands.



Landitude, Inc. employs cutting edge digital mapping technologies to develop comprehensive land management solutions that enable our clients to better manage their land-based resources.



The mission of the **National Ecological Observatory Network (NEON)** is to enable understanding and forecasting of the impacts of climate change, land use change and invasive species on continental-scale ecology by providing infrastructure and consistent methodologies to support research and education in these areas.

Lotek is a world leader in the design and manufacture of avian, fish, and wildlife monitoring systems. We're committed to providing innovative solutions for a sustainable future.



The USDA-**Natural Resources Conservation Service** works one-on-one with landowners across the nation to help them improve wildlife habitat while still meeting their agriculture production goals. They offer both financial and technical assistance to implement conservation practices.



The **Texas A&M AgriLife Extension** booth will focus on a program called '*Reversing the Quail Decline Initiative*', which seeks to address the decades-long decline of quail populations in Texas by providing access to educational resources for quail conservation and management.

Texas A&M University Press was established in 1974 to support the university's goals of stimulating scholarly discourse; we are today counted among the top public university presses in America. We publish more than 60 titles a year, which are available in print, on-demand, and electronic editions. Our publications consistently win competitive grants and prestigious awards.



TEXAS A&M UNIVERSITY PRESS

800.826.8911 Fax: 888.617.2421 www.tamupress.com



Texas Brigades is a 501©3 organization with a vision of building conservation leaders in every community. Our mission is to education and empower youths with leadership skills and knowledge in wildlife, fisheries, and land stewardship to become conservation ambassadors for a sustained natural resource legacy across Texas.

Texas Agricultural Land Trust (TALT) promotes the conservation of open space, wildlife habitat, and natural resources on Texas' private working lands, partnering with landowners to conserve 225,887 acres. Created by farmers and ranchers, for farmers and ranchers, Texas Ag Land Trust is proud to play a role in conserving part of Texas' legacy of wide open spaces.



Texas Parks and Wildlife Department's (TPWD) mission is to manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing, and outdoor recreational opportunities for the use and enjoyment of present and future generations. **Texas Nature Trackers** tracks the status of wild plant and animal populations throughout Texas.





Texas Parks and Wildlife Foundation's mission is to provide private support to Texas Parks and Wildlife Department to ensure that all Texans, today and in the future, can enjoy the wild things and wild places of Texas.

The Department of Natural Resources Management at **Texas Tech University** offers graduate (M.S. and Ph.D.) and undergraduate (B.S.) degrees for students seeking careers in range, wildlife, or fisheries.



Texas Wildlife Association (TWA) is a statewide membership organization that serves Texas wildlife and its habitat, while protecting property rights, hunting heritage, and the conservation efforts of those who value and steward wildlife resources.



Voss Signs is a sign manufacturer specializing in custom & stock signage, banners & event displays, and products.





**VECTRONIC
Aerospace**

Vectronic-Aerospace is a telemetry manufacturer of high quality, German engineered, state-of-the-art GPS collars with IRIDIUM, GLOBAL STAR, GSM and UHF remote communication. Sensor features: proximity, separation, virtual fence, VIT, MIT and trap transmitters. Original manufacturer of the neonate communication system. NEW: Vertex Plus, Vertex Light, GPS collars and 3-axis activity accelerometers. We put customer satisfaction first.

The **Wildlife Conservation Camp** is an educational program conducted by the Texas Chapter of The Wildlife Society. Held annually since 1993, The Wildlife Conservation Camp offers opportunities for practical application of game and nongame management concepts in an effort to promote conservation through the education of high school students.



Sight Glass Flights is a drone service company with a passion for wildlife stewardship. We are leading advancements in survey methodology through the use of high-resolution drone-mounted thermal sensors. This non-intrusive, safe and effective method is proving to be highly accurate. We are excited about providing reliable survey data to ranch owners, managers, and biologist across Texas.



Thank you to our Raffle Donors!

Stephen Webb
Bass Pro Shops
Clint Faas
Whole Earth Provisions
Carly Elzner – Carmadilla Taxidermy
Dallas Safari Club
Operation Orphans
Big Bend Coffee Roasters
Shawn Gray - Gray Ranch
Welder Wildlife Refuge
Landitude Outfitters
King Ranch
East Foundation
Eric Garza
Big Bend Brewery
Johnson's Feed & Western Wear
Texas Wild Film Tour
Ally Outdoors
Big Bend Brewery