# North American Joint Bat Working Group Meeting



28th Colloquium on the Conservation of Small Mammals
23rd Meeting of the Southeastern Bat Diversity Network
16th Meeting of the Northeast Bat Working Group
10th Meeting of the Midwest Bat Working Group

### **PROGRAM OVERVIEW**

Time	Monday	Tuesday	Wednesday	Thursday
7:00-5:00		REGISTRATION	REGISTRATION	
8:00-9:00		PLENARY	CONCURRENT NEBWG MEETING SPOTTED SKUNK	MAMMAL COLLOQUIUM
9:00-10:00		SESSION	CONCURRENT MWBWG MEETING SPOTTED SKUNK	
10:00-10:30		BREAK	BREAK	BREAK
10:30-11:00		PLENARY	CONCURRENT UPDATES FLYING SQUIRREL	MAMMAL - COLLOQUIUM
11:00-12:00		SESSION	CONCURRENT UPDATES FLYING SQUIRREL	
12:00-1:30	MYLE FIELD TRIP 1:00-6:00	LUNCH PROVIDED	LUNCH PROVIDED	LUNCH PROVIDED
1:30-2:00		PLENARY	MAMMAL	MAMMAL
2:00-3:00		SESSION	COLLOQUIUM	COLLOQUIUM
3:00-3:30		BREAK	BREAK	BREAK
3:30-3:45		PLENARY SESSION	MAMMAL	MAMMAL COLLOQUIUM
3:45-4:45		SBDN MEETING	COLLOQUIUM	AWARDS & FAREWELL
4:45-5:00		EXPLORERS FOR BATS		
5:00-7:00+	REGISTRATION EXHIBITOR SETUP			
7:00-10:00	SOCIAL 7:00-12:00		SOCIAL & POSTER SESSION	

#### **SCHEDULE OF EVENTS**

# 2018 North American Joint Bat Working Group Meeting and the Colloquium on the Conservation of Mammals Roanoke, VA

#### **MONDAY, MARCH 26, 2018 - EARLY ARRIVAL**

1:00 p.m. – 6:00 p.m.	MYLE Working Group Field Trip
5:00 p.m9:00 p.m.+	Exhibitor Setup
5:00 p.m7:00 p.m.	Registration
7:00 p.m. – 12:00 a.m.	Welcome Social – Center in the Square

#### TUESDAY, MARCH 27, 2018 - PLENARY SESSION

7:00 a.m5:00 p.m.	Registration
8:00 a.m8:30 a.m.	Opening Remarks – Mark Ford (USGS, VA Tech Cooperative Unit)
8:30 a.m9:00 a.m.	Bat Migration – Liam McGuire (Texas Tech University)
9:00 a.m9:30 a.m.	Onshore Wind – Ed Arnett (Theodore Roosevelt Conservation
	Partnership)
9:30 a.m10:00 a.m.	Offshore Wind – Steve Pelletier (Stantec)
10:00 a.m10:30 a.m.	Break
10:30 a.m11:00 a.m.	Risk Assessment – Trevor Peterson (Stantec)
11:00 a.m11:30 a.m	. Mitigation – Chris Hein (Bat Conservation International)
11:30 a.m12:00 p.m	.Panel Discussion
12:00 a.m1:30 p.m.	Lunch Provided.
1:30 p.m2:30 p.m.	Motus Wildlife Tracking System – Stu MacKenzie (Bird Studies
	Canada)
2:30 p.m2:45 p.m.	Q&A
3:00 p.m3:30 p.m.	Break
3:30 p.m3:45 p.m.	Wrap-up – Liam McGuire
3:45 p.m4:45 p.m.	SBDN Working Group Meeting
4:45 p.m5:00 p.m.	Explorers for Bats by Ravenswood Media

Dinner On Your Own

# WEDNESDAY, MARCH 28, 2018 – BUSINESS MEETINGS, COLLOQUIUM ON THE CONSERVATION OF MAMMALS, FLYING SQUIRREL WORKING GROUP, AND SPOTTED SKUNK WORKING GROUP

	Roanoke Ballroom	Crystal Ballroom	
Time	Working Groups; Program Updates	Species Working Groups	
	Moderator: Brian Reichert	Moderator: Working Group Chairs	
7:00-5:00	Registration	Registration	
8:00	Northeast Bat Working Group Meeting	Spotted Skunk Working Group	
9:00	Midwest Bat Working Group Meeting	Meeting	
10:00	Break		
10:30	Update on the National WNS Response Jeremy Coleman and Jonathan Reichard		
10:45	2018 USFWS Bat Updates  Robyn Niver, Mike Armstrong, Barbara  Douglas, Andrew King, Lori Pruitt, and Shauna  Marquardt		
11:00 PROMOTING ACTIONS TO CONSERVE BATS - BATCONSERVATIONALLIANCE.WIKIDOT.COM Charles M. Francis, Jeremy T. H. Coleman, Rodrigo A. Medellín, Rob Mies, Dave Waldien Northern Fl		Northern Flying Squirrel	
11:15	ACOUSTIC MONITORING OF INSECTIVOROUS BATS OF MEXICO: INITIATIVES, IMPLEMENTATION, AND POLICY MAKING Jorge Ortega, Verónica Zamora-Gutiérrez, María Cristina MacSwiney González, Abigail Martinez-Serena, Marco Tschapka, Ana Ibarra, and Rodrigo A. Medellin	Working Group Meeting	
11:30	LASIURINE BATS AND WIND ENERGY: A UNITED NATIONS-BASED INITIATIVE FOR CONSERVATION AND SUSTAINABLE ENERGY Rodrigo A. Medellin and Erin B. Baerwald		
11:45	Q&A		
12:00	Lunch Provided		

### **Mammal Colloquium Wednesday Afternoon March 28**

	Roanoke Ballroom	Crystal Ballroom
Time	Stressors and Bats: The New Normal	Mammal Monitoring and
		Documentation
	Moderator: Shelby Fulton	Moderator: Kelly Watson
1:30	TORPOR PATTERNS AND HIBERNACULA	FINE SCALE HABITAT SELECTION BY EASTERN
	CONDITIONS OF PERIMYOTIS SUBFLAVUS IN	SPOTTED SKUNKS IN THE SOUTH CAROLINA
	WHITE-NOSE POSITIVE AND NEGATIVE SITES	APPALACHIANS
	Pallavi Sirajuddin*, Susan C. Loeb, David S.	Robin Y. Eng*, David S. Jachowski
	Jachowski and Eric R. Britzke	
1:45	WNS-INDUCED TEMPORAL AND SPATIAL	DEN SITE SELECTION OF FLORIDA SPOTTED
	CHANGES IN LITTLE BROWN BAT ACTIVITY	SKUNKS (SPILOGALE PUTORIUS
	Tomás Nocera*, Christopher A. Dobony, Alex	AMBARVALIS) IN A DRY PRAIRIE ECOSYSTEM
	Silvis, W.M. Ford	Stephen N. Harris*, Terry J. Doonan, Erin L.
		Hewett Ragheb, Davis S. Jachowski
2:00	WINTER ROOST SELECTION BY TRI-COLORED	USING CITIZEN SCIENTISTS AND CAMERA
	BATS AND SOUTHEASTERN MYOTIS IN	TRAPS TO SURVEY FOR EASTERN SPOTTED
	FLORIDA CAVES	SKUNKS IN ALABAMA
	Lisa M. Smith, Terry J. Doonan, Brett	Andrew J. Edelman, William C. Cornelison,
	Tornwall, and Jeffery A. Gore	and Nicholas Sharp
2:15	MODELING THE EFFECTS OF WHITE-NOSE	NABAT: NORTH AMERICA UNITES TO
	SYNDROME ON THE BAT COMMUNITY IN	SYSTEMATICALLY DOCUMENT BAT
	WISCONSIN	POPULATIONS
	Jordan J. Meyer*, Robin E. Russell, Scott E.	Brian Reichert
	Hygnstrom	
2:30	ACTIVITY PATTERNS OF BATS AT	ARCHIVING ACOUSTIC DATA TO MONITOR
	SHENANDOAH NATIONAL PARK	BATS OVER THEIR FULL ANNUAL CYCLE
	Nicholas Kalen, Mike Muthersbaugh, Alex	Theodore J. Weller
	Silvis, W. Mark Ford	
2:45	DRIVERS OF FALL AND SPRING HOURLY	HABITAT PREFERENCE AND MOVEMENT
	ACTIVITY PATTERNS OF MIGRATORY BAT	PATTERNS OF FLORIDA BONNETED BATS
	SPECIES IN THE CENTRAL APPALACHIANS	(EUMOPS FLORIDANUS)
	Michael S. Muthersbaugh*, Alexander Silvis,	Elysia Webb*, Holly Ober, Elizabeth Braun de
	and W. Mark Ford	Torrez
3:00-3:30	BREAK	

### **Mammal Colloquium Wednesday Afternoon March 28**

Time  Bats: Habitat and Sampling  Listening to Bats: How Hearing  Moderator: Sara Sweeten  Moderator: Alex  3:30  EVALUATING PATTERNS IN BAT OCCUPANCY AND RELATIVE ACTIVITY ACROSS TOPOGRAPHIC CLASSES AT MARINE CORPS  Justin Zoladz and Chris Sande	x Silvis CE ABSENCE		
3:30 EVALUATING PATTERNS IN BAT OCCUPANCY AND RELATIVE ACTIVITY ACROSS SURVEY USING ACOUSTIC DI	CE ABSENCE		
3:30 EVALUATING PATTERNS IN BAT OCCUPANCY BAT HIBERNACULA PRESENCE SURVEY USING ACOUSTIC DE	CE ABSENCE		
AND RELATIVE ACTIVITY ACROSS SURVEY USING ACOUSTIC D			
	ETECTORS		
TOPOGRAPHIC CLASSES AT MARINE CORPS  Justin Zoladz and Chris Sande			
	ers		
BASE QUANTICO AND PRINCE WILLIAM			
FOREST PARK			
Samuel R. Freeze*, W. Mark Ford,, Verl R.			
Emrick, and Alexander Silvis			
3:45 EFFECTS OF HABITAT STUCTURE IN BATS ACROSS THE SPACE-TII	ME CONTINUUM		
LONGLEAF PINE FORESTS ON BATS – A THEORY OF RELATIVE AC	CTIVITY		
L. H. Moore*, S. C. Loeb, T. D. Steury, L. J. Elaine Barr*, Alex Silvis, W.N	1. Ford		
Marzen, and S. M. Hermann			
4:00 BATS, BUZZES, AND DRINKING: A PILOT COMPARISON OF PASSIVE A	ND ACTIVE		
STUDY AND PHOTOGRAPHIC JOURNEY ACOUSTIC SAMPLING IN A B	AT COMMUNITY		
Price Sewell, Steve Samoray, and Mark W. IN SOUTH-CENTRAL SOUTH	CAROLINA		
Gumbert Katherine D. Teets*, S. Loeb,	J. Kilgo, and D.		
Jachowski			
4:15 DIGITAL ENDOSCOPE: A TECHNIQUE TO CLASSIFIER TEST REDUX: SIG	INAL ANALYSIS		
MONITOR ARTIFICIAL ROOSTING SOFTWARE AS SURVEY TOO	LS FOR		
STRUCTURES FOR BATS DETERMINING MYOTIS SPEC	CIES OCCUPANCY		
Adam Mann and Jason Duffey J.D. Chenger and J.D. Tybure	ec		
4:30 DRONES FOR RECORDING BATS: LET'S JUST AGREE TO DISAG	REE:		
CHALLENGES, RESULTS, AND ETHICAL COMPARING AUTO-ACOUST	TIC		
CONSIDERATIONS IDENTIFICATION PROGRAMS	S		
Laura N. Kloepper and Yanqing Fu  Tomás Nocera*, Christopher	A. Dobony, Alex		
Silvis, W.M. Ford			
4:45 ESTIMATING POPULATION SIZES OF <i>MYOTIS</i> EXAMINING TEMPORAL TRE	NDS OF NATIVE		
LUCIFUGUS THROUGH NOVEL METHODS BATS IN NORTHWEST OHIO	THROUGH		
AND ANALYSES CITIZEN SCIENCE			
Austin Waag*, John Treanor, Jessica Tyler N. Turner,* Karen V. Ro	oot		
Kropczynski, and Joseph Johnson			
5:00 – 7:00 DINNER ON YOUR OWN	DINNER ON YOUR OWN		
6:00 – 7:00 Poster Setup	Poster Setup		
7:00 – 10:00 Social, Poster Session, Silent Auction	Social, Poster Session, Silent Auction		

## Poster Session Wednesday Evening March 28

No.	Title and Authors		
1	EFFECTS OF VARIATIONS IN FOREST CANOPY OPENNESS, PREY ABUNDANCE, AND ABIOTIC FACTORS ON		
	BAT ACTIVITY IN THE NANTAHALA NATIONAL FOREST		
	Thomas M. Granger, Beverly Collins, Susan Loeb, Joseph Pechman, Aimee Rockhill		
2	REACHING OUT TO NEW AUDIENCES FOR BAT CONSERVATION		
	Catherine J. Hibbard		
3	TWENTY YEARS OF MIST-NETTING IN WV: BAT POPULATION AND COMMUNITY CHANGES		
	Catherine M. Johnson, Craig W. Stihler, and Chris Sanders		
4	CHANGES IN BAT CAPTURE RATES AND COMMUNITY COMPOSITION AT FORT INDIANTOWN GAP,		
	PENNSYLVANIA		
	Christopher L. Hauer, Lisa E. Powers, David K. McNaughton, Carolyn P. Paul, and Brent J. Sewall		
5	EASTERN SMALL-FOOTED MYOTIS (MYOTIS LEIBII) HABITAT ON THE NIAGARA ESCARPMENT		
	Christy L. Humphrey, Heather A. Fotherby		
6	HABITAT OCCUPANCY AND DETECTION RATES OF NORTHERN FLYING SQUIRRELS IN PENNSYLVANIA		
	USING ULTRASONIC ACOUSTICS		
	Corinne A. Diggins, Gregory G. Turner, and L. Michelle Gilley		
7	SURVIVAL AND RECRUITMENT OF A PERSISTING COLONY OF LITTLE BROWN MYOTIS IN SOUTHERN		
	ONTARIO		
	Derek Morningstar, and Al Sandilands		
8	HIBERNACULA COUNTS REVEAL MAJOR DECLINES IN MARYLAND CAVE BATS		
	Elizabeth R. Stevenson, Daniel J. Feller, and J. Edward Gates		
9	BATS IN BRIDGES: SEARCHING FOR SUITABLE ACOUSTIC METHODS AND ANALYSIS		
	Eric D. Wolf and Margaret (Meg) Short		
10	MOBILE ACOUSTIC SURVEY DURATION, SEASONALITY, AND REPETITION INFLUENCE INFERENCES ON BAT		
	ACTIVITY AND SPECIES RICHNESS		
44	Holly K. Ober, Shelly A. Johnson, and Sarah E. Friedl		
11	BAT ROOSTS IN BRIDGES: ASSESSING ILLINOIS BRIDGES FOR BAT USE		
42	Jocelyn R. Karsk and Jean M. Mengelkoch, and Janet Jarvis		
12	BAT ACTIVITY SURROUNDING THE SILVER MOUNTAIN HIBERNACULUM DURING SPRING EMERGENCE AND FALL SWARM		
	Joel A. Flory, Deahn M. Donner, Brian L. Heeringa, Jacqueline L. Frair		
13	AN ASSESSMENT OF GENETIC STRUCTURE IN THE FLORIDA MOUSE (PODOMYS FLORIDANUS)		
	Terry J. Doonan, Andrew Marx, and James D. Austin		

No.	Title and Authors
14	COMMON MANUAL VETTING MISTAKES EVERY NOVICE MAKES
	Kathleen O'Connor, Lisa Kleinschmidt, Prescott Weldon, Michael Fishman, Leslie Rodman-Jaramillo, and Zoe Bryant
15	UPDATE ON THE DEVELOPMENT OF THE U.S. FISH AND WILDLIFE SERVICE ELECTRONIC BAT DATABASE
	Keith Lott
	BABY IT'S COLD OUTSIDE: FALL 2017 AND WINTER 2018 BAT ACTIVITY ON THE COASTAL PLAINS OF NORTH CAROLINA
	Kristi Confortin, Dottie Brown, Drew Powell, Julia Hoeh, and Meredith Hoggatt
17	INFLUENCE OF OFF-ROAD VEHICLE TRAILS ON SMALL MAMMAL COMMUNITY STRUCTURE AND BAT
	ACTIVITY IN WESTERN MARYLAND
	Erin Thady, Emily Harlan, Sabrina Edwards, and Thomas Lambert
18	ARTIFICIAL ROOST USE BY NORTHERN LONG-EARED BATS IN WEST VIRGINIA FROM 2016-2017
	Malachia R. Evans and Eric Schroder
19	NORTHERN LONG-EARED BAT MATERNITY ROOST SELECTION IN MINNESOTA
	Morgan Swingen, Ron Moen, Richard Baker, Timothy Catton, Kari Kirschbaum, Gerda Nordquist, Brian Dirks, Nancy Dietz
20	IMPROVING CAPTURE METHODS TO INCREASE CAPTURE SUCCESS RATE AND REDUCE HANDLING TIME
	AND POTENTIAL STRESS LEVELS OF BATS IN ARTIFICAL STRUCTURES
	Neil W. Lafleur
21	EFFECTS OF THE AMOUNT OF AGRICULTURE IN A FOREST MATRIX ON MEDIUM AND LARGE-SIZED MAMMALS IN SOUTHWEST VIRGINIA
	Rachel Collins and Olivia Karkenny
22	HOME RANGE DYNAMICS AND HABITAT SELECTION OF THE EASTERN SPOTTED SKUNK IN THE OZARKS
	Summer D. Higdon and Matthew E. Gompper
23	LAND MAMMALS OF THE VIRGINIA BARRIER ISLANDS
	Raymond D. Dueser, John H. Porter, and Nancy D. Moncrief
24	DETECTION EFFICIENCY OF THE ALLEGHENY WOODRAT (NEOTOMA MAGISTER) IN VIRGINIA
	Makayla E. Beckner, Emily D. Thorne, Karen E. Powers, Richard J. Reynolds, W. Mark Ford, Sandra L. Bryan
25	ACOUSTIC MONITORING OF GRAY BAT SUMMER COLONIES IN SOUTHWESTERN VIRGINIA
	Karen E. Powers, Rick J. Reynolds, Wil D. Orndorff, Tom Malabad, and W. Mark Ford
26	ACTIVITY PATTERNS AT GRAY BAT (MYOTIS GRISESCENS) SUMMER CAVE ROOSTS IN THE UPPER TENNESSEE RIVER BASIN, SOUTHWESTERN VIRGINIA: PRELIMINARY RESULTS USING THE BAT CALL DATA RECORDER (BCDR)
	Wil Orndorff, Tom Malabad, Katarina Kosic Ficco, Karen E. Powers, Rick Reynolds, and Chris Hobson
27	BAT UTILIZATION OF FORESTED HABITAT ON THE CUMBERLAND PLATEAU, TENNESSEE
	Connor Peach, Amy Turner, Ken Smith, Molly Mueller, and Mary Hannah Giddens

No.	Title and Authors
28	"CRASH INTO ME:" HOW BRAZILIAN FREE-TAILED BATS AVOID COLLISIONS DURING CAVE EXODUS
	Bailey E. Oppman and Laura N. Kloepper
29	USE OF LONG TERM MONITORING TO STUDY IN-FLIGHT SOCIAL CALLS OF NORTH CAROLINA BATS
	Brian T. Springall, Han Li, and Matina C. Kalcounis-Rueppell
30	THE MAMMAL COLLECTION AT EASTERN KENTUCKY UNIVERSITY: A RESOURCE FOR NATURAL HISTORY EDUCATION AND CONSERVATION
	Carson E. McNamara & Luke E. Dodd
31	OPTIMIZATION OF CAMERA TRAPPING METHODS FOR SURVEYING MESOPREDATORS IN THE APPALACHIAN FOOTHILLS
	Courtney R. Hayes, Kelly Watson, and Luke E. Dodd
32	A MULTIVARIATE ANALYSIS OF COMPLEX RELATIONSHIPS BETWEEN DEN SELECTION BY EASTERN SPOTTED SKUNKS (SPILOGALE PUTORIUS) AND ENVIRONMENTAL VARIATION
	Emily D. Thorne, and W. Mark Ford
33	THE MICROBIOLOGY OF FRESH, SURFACE, AND DEEP BAT GUANO SAMPLES, INCLUDING DETECTION OF
	POSSIBLE PATHOGENS
	Makenzie B. Duncan, Laura N. Kloepper, John A. McInroy, and Joseph W. Kloepper
34	BAT TRACKING AND COUNTING WITH LOW-COST THERMAL CAMERAS
	Guangyu Wu, Laura N. Kloepper and Robert L. Stevenson
35	ARTIFICIAL ROOST STRUCTURES AS A SURROGATE FOR NATURAL ROOSTS IN THE EASTERN SMALL-FOOTED MYOTIS, MYOTIS LEIBII
	Jacques Veilleux, Katharine York, and Alana Larssen
36	COYOTE BEHAVIOR AND INTERACTION WITH MESOPREDATORS IN A FOREST/AGRICULTUREAL LANDSCAPE IN ROANOKE VALLEY, VA
	Josef Simme and Rachel Collins
37	NORTHERN LONG-EARED BAT MATERNITY COLONY ROOST TREE CHARACTERISTICS IN THE CENTRAL APPALACHIANS: HAS WHITE NOSE SYNDROME CHANGED ROOST SELECTION?
	Justin F. Hall, Michael S. Muthersbaugh, Alexander Silvis, and W. Mark Ford
38	THE INFLUENCE OF HABITAT AND WEATHER PARAMETERS ON BATS IN NORTHERN INDIANA
	Kaitlyn Cartone and Laura N. Kloepper
39	INTERACTIONS BETWEEN IMPREILED BAT SPECIES AND A FIRE DEPENDENT ECOSYSTEM IN THE SOUTHERN APPALACHIANS
	Kaitlyn Torrey, Andrew Edelman, Joseph Johnson, and Jonathan Stober
40	WELCOME HOME: BRAZILIAN FREE-TAILED BATS ADJUST THEIR ECHOLOCATION CALLS TO DETECT CAVE OPENING
	Kathryn A. McGowan and Laura N. Kloepper

No.	Title and Authors		
41	COMPARISON OF AUTOMATED BAT CALL CLASSIFICATION SOFTWARE VERSIONS: WHEN TO UPGRADE?		
	Katy R. Goodwin and Erin H. Gillam		
42	A MULTI-YEAR WHITE-NOSE SYNDROME TREATMENT AT BLACK DIAMOND TUNNEL		
	Kelly Lutsch, Kyle T. Gabriel, and Christopher T. Cornelison		
43	SPECIES-SPECIFIC PROBABILITY OF WINTER ACTIVITY ACROSS A TEMPERATURE GRADIENT IN BATS		
	Kevin A. Parker, Han Li and Matina C. Kalcounis-Rueppell		
44	BAT ACTIVITY FOLLOWING REPEATED PRESCRIBED FIRE IN THE CENTRAL APPLALACHIANS		
	Lauren V. Austin, Alexander Silvis, Michael S. Muthersbaugh, Karen E. Powers, W. Mark Ford		
45	POTENTIAL BENEFITS OF REFORESTED AGRICULTURAL RIPARIAN ZONES FOR BAT COMMUNITIES		
	M. T. Harris, H. P. Griscom, and P. M. Ludwig		
46	ACOUSTIC SCANNING BEHAVIOR IN THE NORTHERN LONG-TAILED SHREW		
	Maggie Gleason, Allison Pudlo, Laura N. Kloepper		
47	CHANGES IN SUMMER BAT CAPTURE RATES AT MAMMOTH CAVE NATIONAL PARK: PRE/POST WHITE-		
	NOSE SYNDROME ARIVAL		
	Steven C. Thomas		
48	BASAL HOLLOW MATERNITY ROOSTS OF SOUTHEASTERN MYOTIS IN ALABAMA		
	Mattea Lewis, Kaitlyn Torrey, Andrew Edelman, Joe Johnson, and Jonathan Stober		
49	BASELINE DATA ON OVERWINTERING BATS AND HIBERNACULA IN TEXAS		
	Melissa B. Meierhofer, Krysta D. Demere, Brian L. Pierce, Joseph M. Szewczak, Jonah W. Evans and Michael		
50	L. Morrison		
50	PRESCRIBED FIRE EFFECTS ON SNAGS IN THE SOUTHERN APPALACHIAN MOUNTAINS		
F1	Michelle Baldwin, Andrew J. Edelman		
51	SUMMER FORAGING RESOURCE SELECTION OF LOCAL BATS  Molly Simplies Molly Palen		
	Molly Simonis, Volker Bahn		
52	THE EFFECT OF ALTITUDE ON FREQUENCY, DURATION, AND BANDWIDTH OF ECHOLOCATION CALLS OF TADARIDA BRASILIENSIS RECORDED WITH AN UNMANNED AERIAL VEHICLE		
	Morgan Kinniry and Laura N. Kloepper		
53	FALL BEHAVIOR OF MYOTIS SEPTENTRIONALIS ON ISLANDS		
	Samantha Hoff, Carl Herzog, Amanda Bailey, Zara Dowling, Danielle O'Dell, Luanne Johnson, Elizabeth		
	Baldwin and Wendy Turner		
54	CITY BAT LIFE		
	Shannon Pederson		
55	ESTABLISHMENT OF THE CHARITON HILLS BAT CONSERVATION BANK IN NORTHEAST MISSOURI		
	Josiah J. Maine and Mark A. Tucker		

### **Mammal Colloquium Thursday Morning March 29**

	Roanoke Ballroom	Crystal Ballroom
Time	Simply Seps!	Mammal Potpourri
	<i>Moderator:</i> Laci Coleman	Moderator: Nikki Castleberry
8:00	IMPLEMENTING NEW METHODS TO ASSESS	POPULATION ESTIMATES OF THE ALLEGHENY
	THE SCALE OF EFFECT OF LANDSCAPE	WOODRAT ( <i>NEOTOMA MAGISTER</i> ) IN
	VARIABLES ON OCCURRENCE OF MYOTIS	MARYLAND BASED ON LONG-TERM
	SEPTENTRIONALIS	CAPTURE-RECAPTURE DATA
	John F. Grider*, Steven B. Castleberry, Jeffrey	Kelly J Pearce*, Dan J Feller, Tom L. Serfass
	Hepinstall-Cymerman	
8:15	UNEXPECTED USE OF ANTHROPOGENIC	DISTANCE SAMPLING FOR SOUTHEASTERN
	STRUCTURES AND URBAN AREAS BY THE	POCKET GOPHERS (GEOMYS PINETIS)
	NORTHEN LONG-EARED BAT	JT Pynne, Steven B. Castleberry, L. Mike
	Meghan S. Lout	Conner, Elizabeth Parsons, Robert Gitzen,
		Sarah Duncan, Robert McCleery, James D.
		Austin
8:30	DIURNAL ROOSTS AND FORAGING ACTIVITY	CAN AUTOMATED SOFTWARE TELL BATS
	OF NORTHERN LONG-EARED BATS (MYOTIS	FROM FLYING SQUIRRELS?
	SEPTENTRIONALIS) AT TWO WIND ENERGY	Corinne A. Diggins, L. Michelle Gilley, and W.
	DEVELOPMENT PROJECTS IN	Mark Ford
	SOUTHWESTERN PENNSYLVANIA	
	Scott M. Conover, Jason P. Ritzert, Benjamin	
	T. Hale, and Grant P. Gardner	
8:45	NORTHERN LONG-EARED BAT FALL ACTIVITY	IMPACTS OF RECENT HURRICANES TO THE
	IN WEST VIRGINIA: WHAT ARE THEY DOING?	ENDANGERED ANASTASIA ISLAND BEACH
	Gregg A. Janos and Piper L. Roby	MOUSE (PEROMYSCUS POLIONOTUS
		PHASMA)
		Emily H. Evans, Kurt A. Foote, Alice M. Bard,
		and William B. Brooks
9:00	POST-WNS NORTHERN LONG-EARED BAT	HOW DO LARGE MAMMALS WEATHER THE
	DAY-ROOSTS IN A RESIDUAL POPULATION	STORM: MOVEMENT AND HABITAT
	Jesse L. De La Cruz*, Ryan L. Ward, Eric S.	SELECTION OF WHITE-TAILED DEER DURING
	Schroder, W. Mark Ford,, Elaine Barr, Tomas	HURRICANE IRMA
	Nocera	Heather N. Abernathy-Conners, Daniel A.
		Crawford, Elina P. Garrison, Richard B.
		Chandler, Mike L. Conner, Karl V. Miller, and
		Michael J. Cherry

### **Mammal Colloquium Thursday Morning March 29**

9:15	STATUS OF A NON-HIBERNATING	TESTING THE MANY-EYES HYPOTHESIS OF	
	POPULATION OF MYOTIS SEPTENTRIONALIS	INTERSPECIFIC INTERACTIONS: RACCOONS	
	IN COASTAL PLAIN NORTH CAROLINA	ARE VIGILANCE PARASITES OF DEER	
	Gary W. Jordan	Summer D. Higdon*, Marcus A. Lashley, M.	
		Colter Chitwood, Christopher S. DePerno, and	
		Christopher E. Moorman	
9:30	NORTHERN LONG-EARED BAT SUMMER	SPATIAL DISTRIBUTION OF INSECT-DERIVED	
	ROOST SELECTION ON COASTAL PLAIN	NUTRIENTS AT MAMMOTH CAVE NATIONAL	
	SOUTH CAROLINA	PARK	
	Kristi Confortin and Dorothy Brown	Shelby A. Fulton and Luke E. Dodd	
9:45	A POPULATION GENETICS ASSESSMENT OF	INDIANA BAT (MYOTIS SODALIS) MATERNITY	
	THE NORTHERN LONG-EARED BAT	ROOST HABITAT PREFERENCE WITHIN	
	Meghan A. Stark*, Jeffrey T. Foster, Matthew	MIDWESTERN UNITED STATES UPLAND OAK-	
	MacManes	HICKORY (QUERCUS-CARYA) FORESTS	
		Eric S. Schroder, Dinesh B. Ekanayake, and	
		Susan P. Romano	
10:00-10:30	BREAK		
	Roanoke Ballroom	Crystal Ballroom	
Time	Forest Management and Bats	Bats: Rarely Studied and Briefly Noted	
	Moderator: Kristi Confortin	Moderator: Cordie Diggins	
10:30	BAT AND INSECT RESPONSES TO	BAT BEHAVIORAL RESPONSES TO WHITE-	
	SHELTERWOOD AND PATCH CUT HARVESTS	NOSE SYNDROME AND IMPLICATIONS FOR	
	IN APPALACHIAN HARDWOOD FORESTS	RESISTANCE AND TOLERANCE	
	Phillip L. Arant*, Michael J. Lacki, John M.	Marianne Gagnon*, Gregory G. Turner,	
	Lhotka, and Jeffrey W. Stringer	Kenneth A. Field, DeeAnn M. Reeder, and	
		Brent J. Sewall	
10:45	EFFECTS OF FOREST MANAGEMENT	TROPHIC NICHE PARTITIONING WITHIN A	
	TECHNIQUES ON BAT HABITAT USE AT FORT	POST-WHITE-NOSE SYNDROME BAT	
	INDIANTOWN GAP, PA	COMMUNITY IN WESTERN KENTUCKY	
	Carolyn P. Paul*, Lisa Powers, Christopher	Macy J. Kailing, Terry L. Derting, and Gary T.	
	Hauer, Shannon Henry, Tim Haydt, Dave	ZeRuth	
	McNaughton and Brent J. Sewall		
11:00	UNDERSTANDING THE ECOLOGICAL IMPACTS	THE COLD NEVER BOTHERED US ANYWAY:	
	OF TIMBER HARVEST TECHNIQUES ON THE	MIGRATION AND TORPOR OF MID-ATLANTIC	
	BAT COMMUNITY IN A MIDWESTERN	BATS	
	HARDWOOD FOREST	S. M. Deeley*, W.M. Ford, E. Barr, and M. St.	
	Keifer L. Titus*, Timothy C. Carter and Scott Haulton	Germain	

### **Mammal Colloquium Thursday Morning/Afternoon March 29**

11:15	AIRPORT EXPANSION AND ENDANGERED	AN INVESTIGATION OF THE NIGHTLY
	BATS: DEVELOPMENT AND MITIGATION	FORAGING PATTERNS OF BATS IN RELATION
	NEAR THE INDIANAPOLIS INTERNATIONAL	TO AUDITORY PREDATOR CUES
	AIRPORT	Carson E. McNamara* & Luke E. Dodd
	Timothy J. Divoll* and Joy M. O'Keefe	
11:30	EFFECTS OF FOREST THINNING ON BAT	ROOST SELECTION OF SOUTHEASTERN
	FORAGING ACTIVITY IN THE NORTHEASTERN	MYOTIS IN AN OLD-GROWTH BOTTOMLAND
	UNITED STATES	HARDWOOD FOREST
	Lisa E. Powers, Christopher Hauer, David	S. Piper Kimpel* and Susan C. Loeb
	McNaughton, Shannon Henry, Timothy Haydt	
	and Brent J. Sewall	
11:45	FIRE-ADAPTED? RECREATING HISTORICAL	IMPORTANT HABITAT CHARACTERISTICS FOR
	FIRE REGIMES MAY BENEFIT AN	EASTERN RED BAT REPRODUCTION IN
	ENDANGERED BAT	SOUTHEAST OHIO
	Elizabeth C. Braun de Torrez, Holly K. Ober,	Maria Monarchino* and Joseph Johnson
	and Robert A. McCleery	
12:00-1:30	LUNCH PROVIDED	
1		
	Roanoke Ballroom	Crystal Ballroom
Time	Roanoke Ballroom Hawkeye State Seps	Crystal Ballroom  Mitigation and Risk Reduction
Time		-
Time	Hawkeye State Seps	Mitigation and Risk Reduction
	Hawkeye State Seps <i>Moderator:</i> Amber Schorg	Mitigation and Risk Reduction  Moderator: Kathryn Womack
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO  ASSESS THE DISTRIBUTION AND MIGRATORY	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS FOR ENDANGERED/THREATENED BATS IN
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO ASSESS THE DISTRIBUTION AND MIGRATORY MOVEMENTS OF NORTHERN LONG-EARED	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS FOR ENDANGERED/THREATENED BATS IN WEST VIRGINIA: WHAT WORKS AND WHAT
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO ASSESS THE DISTRIBUTION AND MIGRATORY MOVEMENTS OF NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) ACROSS	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS FOR ENDANGERED/THREATENED BATS IN WEST VIRGINIA: WHAT WORKS AND WHAT DOESN'T
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO ASSESS THE DISTRIBUTION AND MIGRATORY MOVEMENTS OF NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) ACROSS THE STATE OF IOWA	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS FOR ENDANGERED/THREATENED BATS IN WEST VIRGINIA: WHAT WORKS AND WHAT DOESN'T
	Hawkeye State Seps  Moderator: Amber Schorg  MULTI-YEAR COLLABORATIVE STUDY TO ASSESS THE DISTRIBUTION AND MIGRATORY MOVEMENTS OF NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) ACROSS THE STATE OF IOWA Kelly Poole, Jesse Leckband, and Amber	Mitigation and Risk Reduction  Moderator: Kathryn Womack  DEVELOPMENT OF CONSERVATION AREAS FOR ENDANGERED/THREATENED BATS IN WEST VIRGINIA: WHAT WORKS AND WHAT DOESN'T
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### **Mammal Colloquium Thursday Afternoon March 29**

2:00	OBSERVATIONS OF FALL MIGRATORY	IMPACTS OF WNS ON A PRIORITY ONE
	BEHAVIOR FROM TWO SPECIES OF MYOTIS	INDIANA BAT HIBERNACULA
	BATS IN CENTRAL IOWA	Timothy C. Carter, Joseph A. Kath, and
	Kevin L. Murray, Aaron MacAlexander,	Bradley J. Steffen
	Benjamin T. Hale	·
2:15	SEARCHING FOR BAT HIBERNACULA IN IOWA	BAT SURVEY HAZARDS: RISK REDUCTION
	WITH SCENT DETECTION DOGS	AND AVOIDANCE
	Aimee Hurt and Melissa Steen	Prescott J. Weldon, Michael S. Fishman,
		Kathleen E. O'Connor, Leslie Rodman-
		Jaramillo, Zoe D. Bryant, and Lisa
		Kleinschmidt
2:30	AUTUMN BEHAVIOR OF NORTHERN LONG-	SMARTER CURTAILMENT FOR BATS
	EARED BATS (MYOTIS SEPTENTRIONALIS) IN	Christine Sutter
	CENTRAL IOWA	
	Piper Roby and Mark Gumbert	
2:45	THERMAL VIDEO AND ACOUSTIC	A GENERALIZABLE RAPID RESPONSE MODEL
	MONITORING OF POTENTIAL NORTHERN	FOR REDUCING BAT FATALITIES AND
	LONG-EARED BAT (MYOTIS	IMPROVING POWER PRODUCTION AT WIND
	SEPTENTRIONALIS) HIBERNACULA IN IOWA	ENERGY FACILITIES
	Joshua Otten and Terry VanDeWalle	Mark A. Hayes, Stephen Lindsey, Jason
		Collins, and Lauren Hooton
3:00-3:30	BREAK	
	Roanoke Ballroom	Crystal Ballroom
Time	Bat Distribution in New England	Mitigation/Risk Assessment Cont.
	Moderator: Amber Schorg	<i>Moderator:</i> Kathryn Womack
3:30	CURRENT DISTRIBUTION OF BATS IN NEW	PSEUDOGYMNOASCUS DESTRUCTANS
	HAMPSHIRE BASED ON STATE-WIDE	REMAINS A PROBLEM IN REMNANT MYOTIS
	ACOUSTIC SURVEY	POPULATIONS
	Sarah A. Barnum, Jamie O'Brien, and Jason	Morgan Ingalls, Corinne Michaud-LeBlanc,
	Collins	Lara Maddocks Wilbur, Bik Wheeler, Bruce
		Connery
3:45	TEN YEARS OF ACOUSTIC BAT SURVEYS:	EFFECT OF OMNIDIRECTIONAL MICROPHONE
	DOCUMENTING TRENDS IN MYOTIS	HEIGHT AND DISTANCE FROM EDGE ON
	ACTIVITY IN THE NORTHEAST	PROBABILITY OF DETECTING BATS IN
	Pamela Griffin and Trevor Peterson	KENTUCKY
		Susan C. Loeb, Brooke A. Hines, and Michael
		P. Armstrong
4:00	AWARDS, ANNOUNCEMENTS, CLOSING	
4:00	AWARDS, ANNOUNCEMENTS, CLOSING	

