

**24th Annual Meeting of the
Southeastern Bat Diversity Network
and
29th Annual Colloquium on the
Conservation of Mammals in the Southeastern U.S.**

February 20-22, 2019



Lexington Hotel & Conference Center

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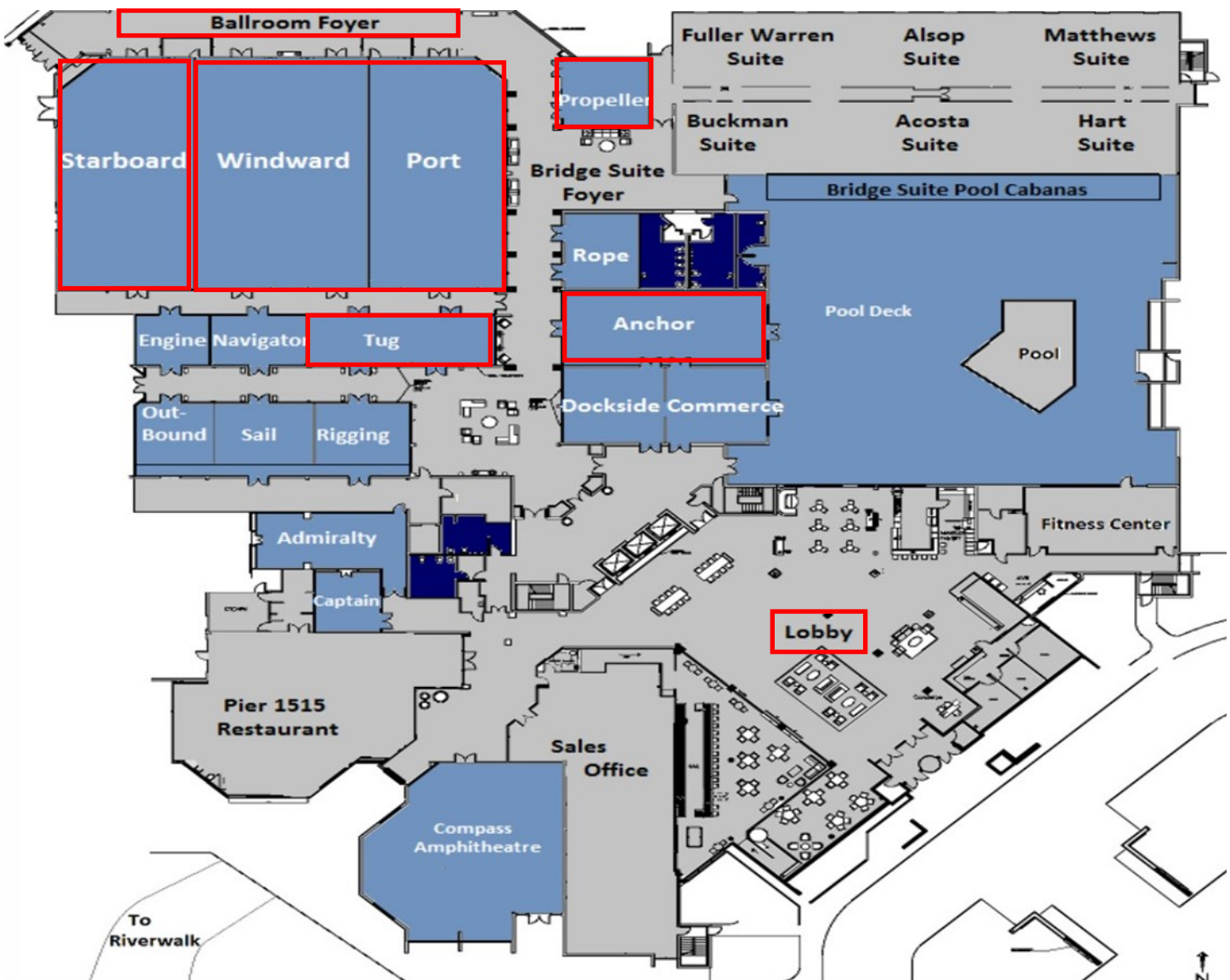
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EVENT LOCATIONS

Registration.....	Ballroom Foyer
Field Trips.....	Meet in Lobby
Exhibitors, Breaks, Posters.....	Starboard
Workshops, Working Groups, Presentations.....	Windward-Port
Workshops.....	Anchor
Workshops.....	Tug
Trivia Challenge.....	Propeller



EVENT INFORMATION

Registration

The registration desk will be staffed throughout the meeting, as indicated in the schedule. Volunteers are available to provide registration packets, sell t-shirts, accept silent auction donations, and answer questions.

Presentations

DISCLAIMER: Due to uncertainty in federal appropriations, the plenary and schedule of presentations are subject to change. We apologize for any inconvenience and regret the potential absence of federal colleagues.

POSTERS: Posters should be mounted in the Starboard Ballroom on Thursday, February 21 between 5:15 and 7:00 p.m. Easels will have a number corresponding to the presenter's assigned poster number. Posters will be displayed until 10:00 p.m. Presenters are encouraged to stand by their posters until ~9:00 p.m.

ORAL PRESENTATIONS: All who are delivering oral presentations should have provided an electronic copy prior to the meeting. It can also be brought to the BCM exhibit table the day before your session. Presentations on Friday, February 22 will be delivered in the Windward Ballroom and the Port Ballroom. Each presentation will be 15 minutes and presenters are encouraged to allow 2-3 minutes for questions.

ABSTRACTS are available online at <https://sbdn.org/annual-meeting/>

Judge Information

Please pick up judging packets at the registration desk which includes the judges forms and instructions. See Nikki Castleberry for any questions or concerns. Please turn in judging forms as soon as possible so that scores can be tabulated after you finish judging each talk. Poster forms should be turned in at the end of the poster session. If you need additional time, please see Nikki. There will be a box in each room where talks are taking place and at registration to turn in finished forms.

Refreshments & Meals

Lunch will be on your own throughout the meeting. A variety of options are within walking distance of the hotel. Light refreshments and snacks will be provided during morning and afternoon breaks. A social will be held in the Starboard Ballroom on Thursday, February 21 from 7:00-10:00 p.m. Hors d'oeuvres and a cash bar will be available. Drink tickets will be provided.

Silent Auction

A silent auction will occur in the Starboard Ballroom on Thursday, February 21 from 7:00-10:00 p.m. Items can be donated at the registration desk. Last call for bids will be at 9:30 p.m. Forms of payment accepted include cash, credit card, and check. Proceeds from the auction will fund our Student Travel Award Program (<http://sbdn.org/student-travel-award-program/>).

Mammal Trivia Challenge

Trivia questions, museum oddities, and other biological curiosities will be set up on Thursday and Friday in the Propeller Room for participants to answer and identify. The challenge requires 2-person teams. All teams of two are welcome to participate, but professional-student pairs will be eligible to win prizes and other pairs (pro-pro or student-student) will be eligible for honorable mentions. Students and professionals looking to find a partner for the Challenge are encouraged to leave their contact information at the registration desk.

Additional information about Workshops and Working Group Meetings is available online at <https://sbdn.org/annual-meeting/>

SCHEDULE OF EVENTS

WEDNESDAY, FEBRUARY 20, 2019 - ASSOCIATED MEETINGS, WORKSHOPS, FIELD TRIPS

12:00 p.m.-4:00 p.m.	Field Trip – White Oak Conservation Center	Meet in Lobby
12:00 p.m.-2:00 p.m.	Workshop 1. Simplifying Data Management by Using SonoBat From Recording to Report Bat Survey Solutions & SonoBat	Windward-Port
12:30 p.m.-2:30 p.m.	Workshop 2. Full Spectrum and Zero Crossings: Making The Most Of Their Different Strengths Titley Scientific	Anchor
1:00 p.m.-5:00 p.m.	Registration	Ballroom Foyer
1:00 p.m.-5:00 p.m.	Exhibitor Setup and Display	Starboard
3:00 p.m.-5:00 p.m.	Workshop 3. Understanding Bat Calls and Improving Acoustic Monitoring Bat Survey Solutions & SonoBat	Windward-Port
3:00 p.m.-5:00 p.m.	Workshop 4. Complete Solutions for Bat Research from Wildlife Acoustics	Tug
3:00 p.m.-5:00 p.m.	Workshop 5. The New Anabat Insight Analysis Software from Titley Scientific	Anchor
3:00 p.m.-5:00 p.m.	SBDN Executive Committee Meeting	Propeller
6:00 p.m.-9:00 p.m.	Dinner and No-Host Social	V Pizza
6:15 p.m.-??? p.m.	Field Trip – An active acoustic monitoring walkabout With Chris Corben, John Chengler, Kim Livengood, & Joe Szewczak	Jacksonville Equestrian Center



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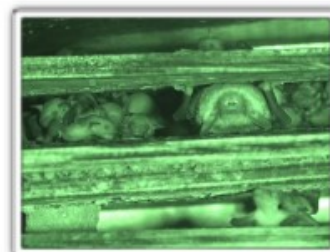
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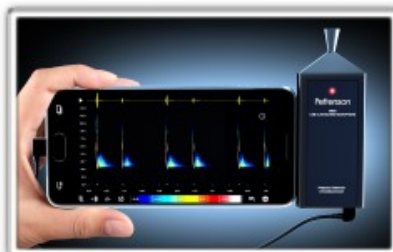
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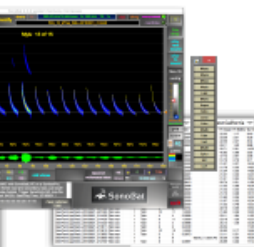
Trainings by the numbers . . .

- 6:1 = Average "Student : Instructor" ratio
- 26 = Average number of years of teaching experience per instructor
- 25 = Consecutive number of years courses have been offered
- 3,000+ = Number of students served since 1992, representing federal, state, NGO, and academic
- 23+ = number of acoustic hardware models available for students from seven major manufacturers



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THURSDAY, FEBRUARY 21, 2019 - SBDN AND ASSOCIATED MEETINGS

7:30 a.m.-5:30 p.m.	Registration	Ballroom Foyer
7:30 a.m.-5:00 p.m.	Mammal Trivia Challenge	Propeller
7:30 a.m.-5:00 p.m.	Exhibitor Setup and Display	Starboard
8:00 a.m.-9:30 a.m.	WNS Working Group Meeting & Discussion	Windward-Port
8:00 a.m.-9:30 a.m.	Workshop 7. Haircuts to Origin Models: A Guide To Emerging Tools to Study Animal Movement by Stable Isotope Analysis University of Florida	Tug
9:30 a.m.-10:00 a.m.	Break Sponsored by SWCA and the Florida Museum Of Natural History	Starboard
10:00 a.m.-11:30 a.m.	Coordinating Bat Monitoring Activities Across the Southeast	Windward-Port
11:30 a.m.-1:00 p.m.	Lunch	On your own
1:00 p.m.-1:05 p.m.	Welcome Melissa Tucker, FWC	Windward-Port
1:05 p.m.-2:00 p.m.	SBDN Business Meeting	Windward-Port
	Introductory Remarks	Trina Morris, President
	Treasurer's Report	Luke Dodd, Treasurer
	Committee Reports	Committee Chairs
	Presentation of Awards	Nikki Castleberry
	2019 Bat Blitz	Lisa Gatens
	2020 SBDN Meeting	Trina Morris
	Future Meetings	Steve Samoray, President-Elect
	Other Business	Membership



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THURSDAY, FEBRUARY 21, 2019 cont.

2:00 p.m.-3:20 p.m.

SBDN Plenary and Discussion, Session A

Windward-Port



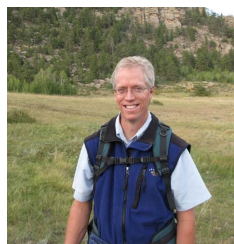
**Rapid Range Expansion of *Lasiurus seminolus*
in the U.S.**

Roger Perry
U.S. Forest Service



**Range Expansion of the Brazilian Free-tailed Bat in
the Eastern United States**

Melqui Gamba-Rios
Bat Conservation International



**Predicting Range Expansion of the Common Vampire
Bat into the United States In Response to
Changing Climate Conditions**

Mark Hayes
Normandeau Associates

3:20 p.m.-3:45 p.m.

Break Sponsored by White Oak Conservation and Apogee

Starboard



THURSDAY, FEBRUARY 21, 2019 cont.

3:45 p.m.-5:15 p.m.

SBDN Plenary and Discussion, Session B

Windward-Port



Considerations in Assessing Changes in Bat Distribution and Abundance

Eric Britzke

US Army Engineer Research and Development Center



An Empirical and Modeling Approach to Assess the Impact of White-Nose Syndrome in Western North America

Sarah Olson

Wildlife Conservation Society



Working Towards Reliable Range-wide Status and Trends Analyses Using NABat Monitoring Data

Brian Reichert

US Geological Survey

5:15 p.m.-7:00 p.m.

Dinner

On your own

5:15 p.m.-7:00 p.m.

Poster Setup

Starboard

7:00 p.m.-10:00 p.m.

Silent Auction

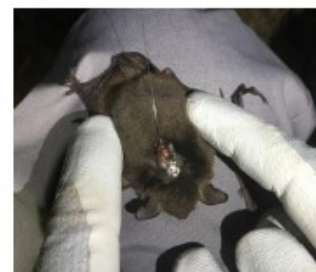
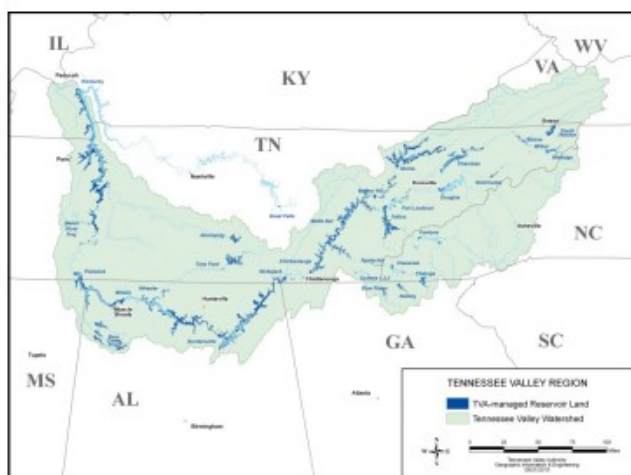
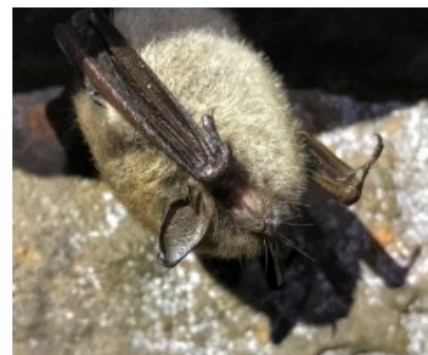
Starboard

Poster Session sponsored by Wildlife Acoustics

Social sponsored by Titley Scientific and TVA

1. **Winter Use of Culverts in Louisiana.** A.N. Anderson¹ and M.C. Arias.
2. **Noninvasive Color Marking to Examine Movements Patterns in Louisiana Culverts.** A.N. Anderson¹, M.C. Arias, M.L. Hoggatt, J.M. LaCour, and A.M. Long.
3. **Observations of Eastern Spotted Skunks in Southern Alabama and the use of Crowd Sourced Information in Locating a Cryptic Species.** K.J. Arts^{1,2}, A.J. Edelman, and N.W. Sharp.
4. **Effects of Prescribed Fire Interval on the Quality of Snag Habitat in the Southern Appalachians.** M.E. Baldwin^{1,2} and A.J. Edelman.
5. **Hurricane Irma's Impacts on Florida Panthers.** M. Criffield¹, B. Kelly, and D.P. Onorato.
6. **Use of Brandenbark™ by Bats in Western Kentucky: Occupancy and Habitat Characteristics.** B. Durbin¹ and T.L. Derting.
7. **Effect of Aspect on the Microclimate of Three-chambered Bat Boxes.** R.D. Crawford^{1,2} and L.E. Dodd.
8. **Use of Long Term Acoustic Monitoring to Study Bat Community Changes in Georgia.** E.A. Ferrall¹ and K.M. Morris.
9. **Prevalence of Hantavirus in Wild Populations of Mice in the Greater Muncie Area.** A.N. Fletcher^{1,2}, T.C. Carter and H.A. Bruns.
10. **Evaluating an Acoustic Lure to Increase Captures of Imperiled Bat Species at Marine Corps Base Quantico and Prince Williams Forest Park.** S.R. Freeze^{1,2}, W.M. Ford, and V.R. Emrick.
11. **A Collaboration Between the US Fish and Wildlife Service and Three Florida Zoos.** M. Getson¹ and K.R. Yanchis.
12. **Lasiurine Foraging Telemetry in Iowa.** K.R. Hammond¹ and T. Sichmeller.
13. **Bat Use of Upland Ponds Within the Hardwood Forest Ecosystem of Southern Indiana.** K.P. Harrison^{1,2} and T.C. Carter.
14. **Assessing Rivers as Barriers to Eastern Spotted Skunk (*Spilogale putorius*) Movement in West Virginia.** K.N. Hassler^{1,2}, T.L. Serfass, K.J. Pearce, K.J. Oxenrider, R.E. Rogers, and C. Waggy.
15. **Wildlife Activity at Maker's Mark Distillery.** C.R. Hayes^{1,2}, K. Watson, and L.E. Dodd.
16. **Assessment of the Pre- and Post-White Nosed Syndrome Bat Communities on Cherokee Tribal Lands.** C.R. Hickman¹, N.A. Reed, D.L. Bradley, J.D. Parris, C. Walker, and M.J. LaVoie.
17. **Distribution and Rest Site Observation of Eastern Spotted Skunks in North Carolina.** A. Hody^{1,2}, C. Olfenbutt, C. Dukes, S. Harris, and D.S. Jachowski.
18. **Dietary Overlap and Pest Consumption of Three Common Bat Species in the Southeast US.** M.J. Hughes^{1,2}, H.K. Ober, and E.C. Braun de Torrez.

19. **Correlation of Bat Species Richness and Bat Activity with Habitat Type, Insect Diversity, and Insect Biomass at Reelfoot Lake.** P.B. Judkins^{1,2}, J.W. Grubaugh, and N.L. Buschhaus.
20. **A New Method to Monitor Trends in Populations of Eastern Small-footed Bats on Talus Slopes.** E.C. Kirk^{1,2} and P.R. Moosman.
21. **A Four-year White Nose Syndrome Mitigation Effort at Black Diamond Tunnel.** A.G. McDonald^{1,2}, K.T. Gabriel, and C.T. Cornelison.
22. **Bat Activity at Upland-embedded Wetlands in the Daniel Boone National Forest, Kentucky.** C.E. McNamara, C.R. Hayes, S. Coles, K. Watson, L.E. Dodd¹, and S.C. Richter.
23. **Response of Anastasia Island Beach Mouse Populations to Habitat Loss.** C.M. Meilink¹, E.H. Evans, and T.J. Doonan.
24. **Gray Bat Diet in Western North Carolina.** J.M. O'Keefe^{1,2}, V.A. Brown, J.A. Weber.
25. **Southeastern Fox Squirrel (*Sciurus niger*) occupancy patterns in fragmented montane longleaf pine forests in Alabama.** J.T. Pynne^{1,2} and A.J. Edelman.
26. **Conservation Methods of Carolina Northern-flying Squirrels on Cherokee Lands and Future Directions of Population Assessments.** N.A. Reed¹, C.R. Hickman, D.L. Bradley, J.D. Parris, and M.J. LaVoie.
27. **Bats of the Florida Keys.** C.E. Rizkalla¹ and S.M. Nuttall.
28. **Temperature Profiles of Three-Chambered Bat Houses at Taylor Fork Ecological Area.** E.P. Robinson^{1,2} and L.E. Dodd.
29. **Longest Documented Spring Migration Track of a Tri-colored Bat (*Perimyotis subflavus*).** S.T. Samoray, S.N. Patterson¹, and M.W. Gumbert.
30. **Crowd-sourcing Spotted Skunks: Citizen Science Improves Efforts to Identify Contemporary Range Boundary of a Rare and Elusive Species in Virginia.** E.D. Thorne^{1,2} and W.M. Ford.
31. **Symbiotic Regulations and Bat Monitoring: The Endangered Species Act, Monitoring on Trust Lands, and Standardized Methods.** C.N. Walker¹, C.R. Hickman, and N.A. Reed.
32. **Round-tailed Muskrats (*Neofiber alleni*) in North Central Florida: Updating Presence Data and Refining Survey Methods.** M.A. Wallrichs¹, L.M. Smith, and R.B. Hayman.
33. **Family Feud: Temporal Partitioning Between Two Mammalian Predators.** J.R. Wasdin^{1,2}, T.I. Young^{1,2}, W. Cornelison, N. Sharp, and A. Edelman.
34. **Variation in Bat Species Diversity and Activity at the Beech Ridge Unit of the Obion River and Wildlife Management Area.** A.A. Weitzel^{1,2}, J.S. Dennison, and N.L. Buschhaus.



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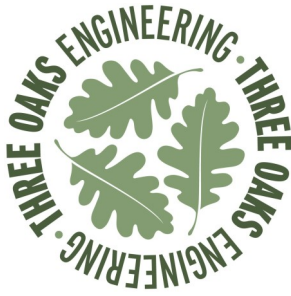


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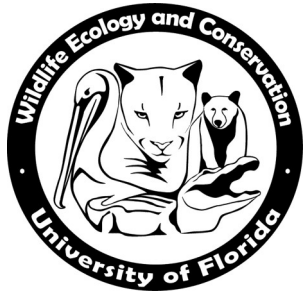


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FRIDAY, FEBRUARY 22, 2019 - COLLOQUIUM ON THE CONSERVATION OF MAMMALS

7:30 a.m.-3:30 p.m.	Registration	Ballroom Foyer
7:30 a.m.-12:00 p.m.	Mammal Trivia Challenge	Propeller
7:30 a.m.-3:30 p.m.	Exhibitor Setup and Display	Starboard

	Session 1A, Port (Moderator: Amy Clifton)	Session 1B, Windward
8:00	Assessing Indiana Bat Reproductive Condition on Kentucky's Post-WNS Landscape. M.L. Rogers ^{1,2} , Z.L. Couch, and L.E. Dodd.	Spotted Skunk Cooperative Study Group
8:15	Range-wide Population Genetic Structure of Rafinesque's Big-eared Bat (<i>Corynorhinus rafinesquii</i>) and Southeastern Myotis (<i>Myotis austroriparius</i>). J.M. West ^{1,2} and B.D. Carver.	
8:30	Lost in Translation? Differences in Bat Acoustic Detectors. E.L. Barr ^{1,2} , D.F. Stauffer, A. Silvis, M.P. Armstrong, and W.M. Ford.	
8:45	The Luxury Effect Beyond the Cities: Bats Responded to Socioeconomic Variations Across Landscapes. H. Li ¹ , K.A. Parker Jr., and M.C. Kalcounis-Rueppell.	
9:00	Diet Characterization of the Florida Bonneted Bat, with Analysis of Seasonal and Geographic Variation. E.N. Webb ¹ , E.C. Braun de Torrez, and H.K. Ober.	
9:15	Northern Long-eared Bat Summer Roost Selection and Behavior on Coastal Plain South Carolina, Year Two. D. C. Brown ¹ .	

9:30 a.m.-10:00 a.m.	Break Sponsored by Copperhead Consulting and Bat Conservation and Management	Starboard
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FRIDAY, FEBRUARY 22, 2019 cont.

	Session 2A, Port (Moderator: Pallavi Sirajuddin)	Session 2B, Windward (Moderator: Kim Chase)
10:00	Prescribed Fire Effects on Summer Habitat Use by Bats in the Cumberland Plateau. C.S. Davis ^{1,2} and S.C. Loeb.	Patterns of Infection and Severity of Skunk Cranial Worms in Spotted Skunks. S.D. Higdon ^{1,2} and M.E. Gompper.
10:15	Using Dynamic Occupancy Models to Determine the Distribution of <i>Myotis septentrionalis</i> in North Georgia. J.F. Grider ^{1,2} , S.B. Castleberry, and J. Hepinstall-Cymerman.	Extent of Hurricane Damage to Habitat for the Imperiled Big Cypress Fox Squirrel. K.L. Hefty ^{1,2} and J.L. Koprowski.
10:30	Assessment of Bridges and Culverts as Roosting Habitat for Tri-colored Bats (<i>Perimyotis subflavus</i>) and Disease Transmission Corridors for <i>Pseudogymnasoascus destructans</i> in Coastal Georgia. K.E. Lutsch ^{1,2} and C.T. Cornelison.	Movements of Translocated Southeastern Pocket Gophers (<i>Geomys pinetis</i>) in Georgia. J.T. Pynne ^{1,2} , S.B. Castleberry, L.M. Conner, E. Parsons, R. Gitzen, S. Duncan, R. McCleery, and J.D. Austin.
10:45	Ambient Temperature Influences Winter Torpor Patterns of Alternate Roosting Tri-colored Bats. B.A. Newman ^{1,2} , S.C. Loeb and D.S. Jachowski.	Evidence for Geographical Dialects in Northern and Southern Flying Squirrels (<i>Glaucomys sabrinus</i> and <i>G. volans</i>). R.L. Shoaf ^{1,2} , L.M. Gilley, C.A. Diggins, and C.A. Kelly.
11:00	Seasonal Variation in Habitat Use by Bats in Coastal South Carolina. K.E. Shute ^{1,2} , S.C. Loeb and D.S. Jachowski.	Genetic Evidence of Isolation in Insular Cotton Rats. J.D. Austin ¹ , W.Boone, and T.Doonan.
11:15	Field Identification of Gray Bats and South-eastern Bats. D.B. Sasse ¹ , T.S. Risch, R.W. Perry, and S.J. Scherman.	Does Habituation Affect Translocated White-tailed Deer (<i>Odocoileus virginianus</i>) survival in the Southern Appalachians? C.R. Hickman ¹ , N.A. Reed, D.L. Bradley, and M.J. La-Voie.

11:30 a.m.-1:00 p.m. Lunch

On your own

FRIDAY, FEBRUARY 22, 2019 cont.

	Session 3A, Port (Moderator: Blair Hayman)	Session 3B, Windward (Moderator: Emily Evans)
1:00	Evidence of Resource-Defense Polygyny in Florida Bonneted Bats. E.C. Braun de Torrez ¹ , J.A. Gore, and H.K. Ober.	I Shall Be Released! Clemency from the WNS Parole Board. M.J. St. Germain ¹ , S.P. Bombaci, D.S. Jachowski, W.M. Ford, R.E. Russell, and S.C. Loeb.
1:15	High Incidence of Piebald Marks in the Endangered Florida Bonneted Bat. L.M. Smith ¹ , J.A. Gore, E.C. Braun de Torrez, E. Webb, F. Ridgley, and B. Tornwall.	Temporal Changes of Bat Activity Following the Arrival of White-nose Syndrome in Northwestern South Carolina. K.D. Teets ¹ , S.C. Loeb, and D.S. Jachowski.
1:30	Characteristics of Northern Yellow Bat Roosts on Georgia Barrier Islands. S.B. Castleberry ¹ , C.R. Bland, J.M. Beck, E. Kurimo-Beechuk, J. Hepinstall-Cymerman, and K.M. Morris.	Right Under Our Noses - Endangered Gray Bats in Western North Carolina. J.A. Weber ¹ , K.L. Caldwell-Etchison, C.W. Nicolay, C.R. Rossel Jr, and J.M. O'Keefe.
1:45	"Bats in Bridges" Inspection Training as a Tool for Impact Avoidance During Transportation Structure Projects. L.L. Pattavina ¹ and K.M. Morris.	Home Range and Habitat of Northern Long-eared and Tri-colored Bats During Fall Swarm. P.R. Moore ¹ , T.J. Remick, and L.W. Robbins.
2:00	Use of an Acoustic Deterrent System for Resident Bat Colonies in Bridges. D.T. Powell ¹ , L. Droppelman, T. Mullins, B. Morton, D. Williams, S. Veeramachaneni, and D. Hedeem.	A Comparison Study of Select Tennessee Department of Transportation (TDOT) Bat Survey Projects Conducted in the Four Geographical Regions of Tennessee. J.D. Wilhide ¹ and C.A. Duke.
2:15	Fat, Happy Bats and Pool Noodles: A Case Study for Completing Maintenance on a Bridge With Year-round Bat Use. K.M. Morris ¹ and L.L. Pattavina.	Are We Maximizing Our Conservation Opportunities at the Annual SBDN-CCMSE Meetings? T. J. Doonan ¹ .

2:30 p.m-3:00 p.m.

Break Sponsored by Environmental Solutions & Innovations

Starboard

3:00 p.m.-3:30 p.m.

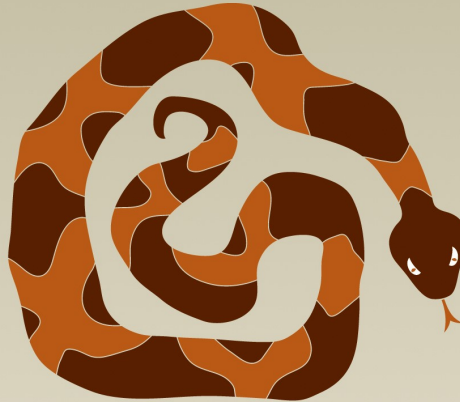
Awards, Announcements, Closing

Windward





- Threatened and Endangered Species Surveys
- Natural Resource Inventory
- Environmental Permitting
- Flora and Fauna Surveys
- NEPA Documentation
- Wetland Delineation
- Pollinator Surveys
- Aerial Surveys
- Soil Sampling



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