



Nightwing News



The Newsletter of the Southeastern Bat Diversity Network

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Fall/Winter 2017

PRESIDENT'S ADDRESS

Following another successful Bat Week and the spooky time of year when creatures of the night are on more people's minds, there is a bit of a buzz about bats. Most of us immersed in the world of bat research and conservation must have noticed a change in those outsiders we have worked for years to educate and get excited about bats. But is that enough? How can we get more people involved?

When you're talking about volunteers, I immediately think about how much work it will be to organize them. I know it will involve countless emails, late night and weekend phone calls and more unusual questions than I can adequately prepare myself for. Organizing volunteers is a full-time job. But interest in citizen science is at all all-time high. How do we take advantage of this while still having enough time to do our real jobs?

One way to help ease the burden of using volunteers is to find lead volunteers. This certainly takes time and not everyone can commit to this level. But if you can find good, dedicated helpers that have decent organizational skills it can really make a difference. Assigning them to lead a specific task or to organize a group of volunteers can free up your time and empower top volunteers. If you are able to give them ownership of something and they feel responsible for the success, they should work harder to make sure it's done right. And they should be more likely to work hard to find additional dedicated volunteers.

Communication is also important. People get blasted with emails and social media posts constantly. Though that might be the quickest way to get out information, personal phone calls may be the best way to establish good volunteer relationships. I have a number of landowners that do not have access to emails or social media. I have to make phone calls and send snail mail if I want to communicate with them. And that can be a good thing, especially if you have particular volunteers you want to help with a certain project. Give them a call and ask them personally. They are more likely to respond and to feel needed if you communicate with them in this way.

Providing incentives is another way to attract and keep volunteers. After a season of volunteer mobile acoustic sampling, I was struggling to gather all the time sheets from our participants. It took multiple emails and phone calls to get responses. However, the response when we offered free t-shirts for volunteers at the end of the season was amazing. Those same people who I was struggling to get information from responded immediately when they were getting something. It really mattered to them. We should be able to offer more than just a pat on the back when people work really hard for us.

Lucky for me, Georgia DNR now has a full-time volunteer coordinator that has helped move us forward. It doesn't take away my day to day oversight but we now have an online registration for volunteers, a way to announce opportunities and a way to reward hard work. Every hour of volunteering gets you closer to another incentive gift. Visit <http://georgiawildlife.com/about/volunteer> for more information about our new program. You may not have the ability to organize something like this, but even just a simple thank you card or an occasional small gift can help them feel appreciated.

Now, get out your batty holiday cards and send a few to some dedicated volunteers. I hope you have a wonderful holiday season and a happy and productive 2018.

Thank you for being part of this great organization.

Trina

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Executive Committee Meeting

Southeastern Bat Diversity Network
Executive Committee
Minutes of the Mid-Year Board Meeting
October 26, 2017

Attendees

Trina Morris, President
Brian Carver, Past President
Luke Dodd, Treasurer

Katherine Caldwell, Secretary
Pete Pattavina, Member at Large
Steve Samoray, Incoming President Elect

Action Items

- AI1:** Morris contact Tim Carter about writing up proposal outlining use of SBDN funds to help with 2017 Bat Blitz and send to Executive Committee for a vote.
- AI2:** Morris contact Carter about updating the meeting host package, e.g., include participant and host questionnaire, appendix of non-bat mammal contacts, need poster boards for poster session, extension cords, etc.
- AI3:** Morris contact Michael Whitby about finishing up the Bat Blitz host package and Carver contact Carter about finishing up the meeting host package for the website.
- AI4:** Dodd contact Carter about creating a guide for students on how to get reimbursed for travel expenses if they win the travel award
- AI5:** Carver send emails to state agency biologists to solicit summaries from their states for the Nightwing Newsletter.
- AI6:** Dodd give contact information for Zack Couch with Kentucky Department of Fish and Wildlife to Pattavina and Pattavina give updated list of state contacts to Carver.
- AI7:** Carver create ad hoc bat poster committee.
- AI8:** Morris send reminder to EC to work on Action Items the week after Thanksgiving.
- AI9:** Caldwell request draft of Nightwing Newsletter from JD Wilhide and summary of Wilhide's and Rojas' respective roles in developing the newsletter.
- AI10:** Morris check with Rick Reynolds about meeting insurance for 2018 Joint Meeting.
- AI11:** Dodd set deadlines with Rob Mies for sending registration money to SBDN to help with joint meeting deposits.
- AI12:** Caldwell send email to email list first week of January encouraging early meeting registration.

Call to order: 10:04AM EST, President Morris

General Discussion

Tim Carter's Action Items

Tim Carter was invited to participate in this conference call because he's listed on many February 2017 action items, but he did not call in. Those action items were spit up by the group to follow-up on.

Nightwing Newsletter

JD Wilhide and Vanessa Rojas are paid \$150 each for the Nightwing Newsletter. Rojas was previously paid \$50 for assisting Wilhide, but she is now paid \$150 because she puts in equal effort. It was determined that the newsletter should be approved by the SBDN President or Past President before dissemination and a summary of Wilhide's and Rojas' respective work on each newsletter should accompany this draft to ensure appropriate payment.

February 2017 Executive Committee Meeting Action Items:

- Not Done. **AI1:** Carter write up proposal outlining use of SBDN funds to help with 2017 Bat Blitz and send to Executive Committee for a vote.
- Not Done. **AI2:** Carter work with Carver to update the meeting host package, e.g., include participant and host questionnaire, appendix of non-bat mammal contacts, need poster boards for poster session, extension cords, etc.
- Not Done. Contingent upon AI2. **AI3:** Carver provide Samoray with meeting and bat blitz host packages to put on website.
- Not Done. **AI4:** Carter create a guide for students on how to get reimbursed for travel expenses if they win the travel award.
- Not Done. **AI5:** Carver send emails to state agency biologists to solicit summaries from their states for the Nightwing Newsletter.
- Not Done. **AI6:** Pattavina give updated list of state contacts to Carver.
- Not Done. **AI7:** Carver create ad hoc bat poster committee.

New Business:

Discussion about 2018 Joint Meeting:

Meeting announcement went out and registration is open. There will be a social on the first night before the meeting starts.

The Hotel Roanoke and Conference Center contract was signed by Rick Reynolds in September. Dodd did not receive information regarding the contract until October 21. Reynolds contacted Dodd about applying for a master credit account, but this doesn't waive or delay payment to the hotel. Ultimately, there's no need for getting a line of credit with the hotel and it could be risky; the SBDN EC thus decided our organization should not apply for credit with the Hotel Roanoke. Two deposits are due to the hotel in January: a \$10,000 deposit on January 1, 2018 and a \$20,000 deposit on January 28, 2018. Early registration ends February 12 and SBDN may not receive an influx of registration funds until last minute. Just after January 1, send announcement to email list encouraging early registration to help with significant upfront fees. Also consider implementing future policy on the maximum pre-meeting payment.

The Northeast Bat Working Group is listed on the contract, but SBDN will ultimately be writing the checks for the meeting. Dodd will need to be included on communication between meeting hosts and the hotel regarding finances from here on. If a financial deficit results from the joint meeting, the assumption is that it will be divided equally by the working groups, but in the future the boards of each working group should sign an MOU for this exact purpose. This meeting and all future meetings should include insurance to cover SBDN's commitment to the hotel/venue in case of a catastrophic event.

Samoray contacted Rob Mies about OBC's website showing purchasing fee charges for some items, but not for others. This has been corrected. Some purchasing fees are expensive (\$86 for \$2,000 vender registration), which may discourage digital transactions. Looking at PayPal fees, this seems to be proportional. Since SBDN has a large upfront deposit to the hotel, setting deadlines for OBC to send SBDN registration funds is important for planning purposes.

2019 SBDN Meeting/Mammal Colloquium Planning

Terry Doonan from the Florida Fish and Wildlife Conservation Commission is working on it and has decided on Jacksonville as the location and the dates February 21-24 have been proposed.

Treasurer's Report

One of the major services that SBDN offers to the bat community is holding and dispersing money for various functions and groups. Annually our two largest events are the Bat Blitz, and the Annual Meeting and Colloquium. Of the \$60,892.46 across SBDN accounts, \$4,510.52 is in our general account. Membership dues remain our primary source of operating income. For the 2017 year we have we received \$77,199.45 and spent \$81779.21. That loss of -\$4579.76 has mostly been in relation to the 2017 SBDN / Colloquium Meeting. We serve as a bank for 4 different state bat working groups (AL, GA, KY, NC), and will soon serve another state in that capacity (TN). As is readily apparent from the amount of money moving through our bank account, and the amount of money held on behalf of various functions and groups, we perform a valuable service to the bat community. On a final note, Dodd started as Treasurer in March 2017. In the last ca. 9 months we've had 90 transactions.

COMMITTEES

Website Committee (Samoray) - Added the registration link to the SBDN site. Also need to add some information from the meeting announcement in a larger font size so it is not overlooked.

Blitz Committee (Whitby) - Met with Josh Campbell from TWRA while at NASBR. They have determined the dates, food, and housing. They want 20 teams and 120 participants. Whitby is planning conference call for early December to bring blitz committee up to speed.

Membership Committee (Bergeson) - No update, but Bergeson is happy to deal with any requests. Assume he's made no progress with anything from the business meeting since he had nothing to report.

Awards Committee (Burnett): Coordinating with Nicki Castleberry for joint meeting. Editing judging registration with Steve and Rob on website so it will go more smoothly.

WNS Committee (Pattavina): Held a conference call in February and talked about some ideas. Haven't gotten the group together lately but need to send info regarding recently announced field trials and have additional people that want to join.

NABCA Update (Morris/Carver) -- Have created a wiki page with information on threats affecting bats and some of the committee members for NABCA have started to update. This was presented at NASBR and the web address is: <http://batconservationalliance.wikidot.com/> The wiki is an outgrowth of the surveys that were done in breakout groups at the 2015 joint meeting in St. Louis. Identified trends in the data and used that to inform the wiki so managers could have some idea on what actions they could take to help mitigate some threats. Georgia worked on the fire portion of the webpage. Check it out!

Meeting adjourned at 11:28AM EST.

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Committee Reports

BAT BLITZ COMMITTEE:

2017 Bat Blitz

Host/Location: Mammoth Cave National Park, Kentucky

The Southeastern Bat Diversity Network's (SBDN) 16th Annual Bat Blitz was hosted by Mammoth Cave National Park (MACA) in south-central Kentucky from July 23rd to July 27th, 2017. Thirty-four participants from across the southeast, assisted by seven local host members, conducted an intensive three-night bat inventory at 25 sites on the park. Bats were captured at 23 of the 25 sites. Mist nets were used at all sites, however harp traps were used at two cave entrances with multiple bat species. The volunteers captured a total of 603 individual bats from 12 different species, including the federally-listed Indiana bat (*Myotis sodalis*), gray bat (*M. grisescens*) and northern long-eared bat (*M. septentrionalis*).

162 Big brown bat (*Eptesicus fuscus*)
89 Gray bat (*Myotis grisescens*)
88 Evening bat (*Nycticeius humeralis*)
71 Rafinesque's big-eared bat (*Corynorhinus rafinesquii*)
67 Eastern red bat (*Lasiurus borealis*)
55 Indiana bat (*M. sodalis*)
45 Eastern small-footed bat (*M. leibii*)
11 Tricolored (Eastern Pipistrelle) bat (*Perimyotis subflavus*)
7 Little brown bat (*M. lucifugus*)
4 Seminole bat (*L. seminolus*)
2 Northern long-eared bat (*M. septentrionalis*)
1 Hoary bat (*L. cinereus*)
1 Unidentified

603 Total Individuals Captured

The data collected during this SBDN bat blitz provide a contrast to the results from an intensive summer bat inventory conducted at MACA in 2004/05 prior to the arrival of the devastating bat disease white-nose syndrome. For example, during the earlier inventory, the 1st, 4th and 6th most-frequently captured species were the northern long-eared bat, tricolored (Eastern Pipistrelle) bat and little brown bat, respectively. While, the 10th most-frequently captured species in 2004/05 was the evening bat. Similar shifts in species frequency distribution have been observed in recent summer bat research on the park.

Hair and non-lethal tissue samples were collected during the 2017 bat blitz in support of genetic research projects on gray and Rafinesque's big-eared bats. The first eastern small-footed bat maternity colony at MACA was documented during the blitz, as well as the first placement of radio transmitters on post-lactating females of this species.

The bat blitz was preceded by a public outreach event at the park visitor center on July 23rd. Bat researcher Dr. Tim Carter (Ball State University) lead an activity for kids in the afternoon called "Be a Bat Scientist". This was followed in the evening by a presentation on the "Bats of Mammoth Cave National Park" by Dr. Carter.

Several media articles resulted from the blitz and can be found, along with photos and other information, at the following links:

<https://www.facebook.com/groups/2017BLITZ/>

http://www.glasgowdailytimes.com/news/scientists-blitz-bats-at-mammoth-cave/article_5d59614e-7252-11e7-b2dd-377266a47205.html

http://www.bgdailynews.com/news/mammoth-cave-hosts-bat-study/article_854528de-2e95-58a8-b427-7d7270ba5d99.html

<https://www.kentuckyliving.com/explore/bat-blitz>

https://www.nps.gov/macaca/learn/news/bat-programs_july.htm

Committee Reports cont.

BAT BLITZ COMMITTEE Cont.:

The 2018 Bat Blitz will be held July 23-27 in Sewanne, Tennessee.

The blitz will be open to approximately 100 participants. Anyone interested in being a team leader should contact Michael Whitby at michael.whitby@gmail.com.

The committee is also soliciting proposals for the 2019 bat blitz. Instructions can be found on the SBDN website and questions should be directed to Michael Whitby at michael.whitby@gmail.com.

WEBSITE COMMITTEE:

The website continues to operate as a source for SBDN announcements and news and has taken on an increased role with the various state working groups by providing registration and payment options. We have also added Jason Robinson to the committee. He has been a great help posting new content and filling in missing information from past events.

Committee Reports cont.

WNS COMMITTEE

As biologists around the Southeast prepare for annual white-nose syndrome (WNS) monitoring this winter, a few WNS treatments are progressing to expanded trials and/or modeling this year. The Bats for the Future Fund, a collaborative grant program between U.S. Fish and Wildlife Service, U.S. Forest Service, National Fish and Wildlife Foundation, Shell Oil, and Southern Company, proposes to test a number of treatment types this year, including: (1) Polyethylene glycol 8000 in Pennsylvania (Lock Haven University); (2) chitosan in Midwest and TX (Western Michigan University, Ball State University, and Bat Conservation International); (3) habitat and micro-climate selection by tri-colored bats, modeling, biomarkers, and disease response (Texas Technological University, Southern Illinois University, Bat Conservation International); (4) probiotics and feasibility of altering a bat's wing microbiome (Thompson Rivers University); (5) feasibility of using ultraviolet light to alter wing microbiome and antagonize *Pseudogymnoascus destructans* (U.S. Forest Service); and (6) vaccine development and exposure to antigens to elicit a protective immune response (U.S. Geological Survey). Additionally, Kennesaw State University, Georgia Department of Natural Resources, and U.S. Fish and Wildlife Service enter year two of delivering volatile compounds (B23) and assessing disease response in a historic train tunnel in Georgia.

As WNS marches south, surveillance of southeastern myotis (*Myotis austroriparius*) is of paramount importance, since clinical signs of the disease were observed by Dottie Brown (Ecological Solutions) and Nick Sharp (AL DCNR) in Alabama during the winter of 2016/2017. The largest, known cave sites for this species (numbering in the tens or hundreds of thousands), located in extreme southern parts of Alabama, Georgia, and epicenter of abundance in Florida, are believed to still be negative for *Pseudogymnoascus destructans*.

New county records and range expansions for northern myotis (*Myotis septentrionalis*) and little brown myotis (*Myotis lucifugus*) continue in the respective coastal plain provinces in South Carolina and North Carolina, giving some hope that these species may persist in low densities in areas potentially less likely to severe WNS infection.

USFWS awaits publication of its 90-day finding for tri-colored bat. This wide-ranging species that's distribution extends to Mexico experienced 90+ declines in WNS endemic areas. The Southeast had some of the most abundant winter sites for tri-colored bat and a number of state biologists are expanding their surveillance efforts to culverts and other sites in areas outside of WNS endemic zones.



Parting shot: Tim Carter, Ball State University and Maarten VonHof, Western Michigan University in a mine in southern Illinois, testing chitosan as a WNS treatment.

State Updates

Submit Your State Updates

Thank you for your submissions! We love reading about all of the research and outreach you are conducting in your regions. From those regions that didn't contribute this year, we look forward to hearing from you for next year's state updates.

Send in your reports and photos anytime from the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

Send summaries and photos to nightwingnews@gmail.com

Alabama



Alabama Survey Finds First Southeastern Bat with White-nose Syndrome

Nick Sharp, ADCNR
Marisa Luback, USGS
Catherine Hibbard, FWS

A press release was issued on June 1, 2017 on the confirmation of the first finding of WNS in the southeastern bat. From section of press release:

The diseased bat was found in Shelby County, Alabama, at Lake Purdy Corkscrew Cave, by surveyors from the Alabama Department of Conservation and Natural Resources (ADCNR) Nongame Program; U.S. Fish and Wildlife Service-Alabama Ecological Services Field Office; Ecological Solutions, Inc.; and the Southeastern Cave Conservancy, Inc. The cave is owned by the Birmingham Water Works and managed by the Southeastern Cave Conservancy, Inc., a nonprofit organization dedicated to protecting cave and karst environments across the Southeast through conservation, education and recreation. WNS in the southeastern bat was confirmed in the laboratory by the U.S. Geological Survey.

Each winter the Alabama Bat Working Group (ABWG) surveys areas to inventory bat populations, discover important bat hibernation areas and document the advance of WNS. This year biologists from the ABWG surveyed 50 sites in 14 counties and found that numbers of tricolored bats and endangered Indiana bats had substantially declined.

Nick Sharp, a member of the ABWG and nongame biologist with the Alabama Division of Wildlife and Freshwater Fisheries, says the decline of tricolored bats has experts concerned. "Tricolored bats were once common in Alabama, but now seem to be disappearing due to WNS. We are troubled by the potential loss of the important ecosystem function this species provides in Alabama," he said.

"Ongoing surveillance for the Pd fungus and white-nose syndrome provides critical information to resource managers about the occurrence of this disease in North American bats," said David Blehert, a scientist with the USGS National Wildlife Health Center. "This information is essential to inform future response efforts."

WNS was first documented in Alabama in 2012 in Jackson County, and since has been confirmed in bats in Jackson, Lawrence, Limestone, Marshall, Morgan and, now, Shelby counties. In addition to finding the diseased southeastern bat this season, the ABWG swabbed more than 100 bats statewide, adding Blount, Bibb and Madison to the list of counties where WNS fungus has been documented. Calhoun, Colbert and Lauderdale tested Pd-positive in previous years. For more information, visit whitenosesyndrome.org



Arkansas

Updates for Arkansas

Blake Sassee, AR Game and Fish Commission

Stacy Scherman, is conducting her second field season as a grad student under Dr. Virginie Rolland at Arkansas State University, researching the fall and winter roosting ecology of Rafinesque's and Southeastern bats in the Cache River National Wildlife Refuge, Arkansas. She has caught several bats (mostly Rafs so far) and has tracked them back to summer roosts identified by former ASU grad student, Sam Schratz, as well as roosts identified last year and to new trees too. We're expecting a shift in their behavior and preferences anytime now that the temperatures have dropped. However, bats may use water levels (rather than temperature alone) as their cue to make their switch and the bottomlands are currently at their driest. Stacy has two undergraduate interns and one regular undergraduate volunteer in addition to a hired field technician.

Cristina Blanco, graduate student under Dr. Jorista van der Merwe at Arkansas Tech University, has been conducting field work on the Ozark National Forest examining the effects of prescribed burning on bat foraging behavior and occupancy. Tyler Porter recently completed his thesis at the University of Louisiana, Monroe on the inventory and abundance of bats on the Felsenthal National Wildlife Refuge in southern Arkansas.

Blake Sassee has continued his work examining survival of eastern small-footed bats at sites in the Ozarks of northern Arkansas. Blake, as well as Mitigation Surveying Services, have been conducting general bat inventory work on Wildlife Management Areas and Natural Areas across the state.



Florida

Bat with White-nose Syndrome

Lorraine Ketzler, USFWS

Eglin Air Force Base constructed 12 bat boxes for National Public Lands Day and BatWeek this year. Volunteers consisted of Cub Scouts, Boy Scouts (including 1 Eagle Scout), Girl Scouts, and a Niceville High School student. Bat boxes were installed in Recreation Areas and Conservation Lands on Eglin AFB that are publicly accessible. This is the second year that we have done the project with DIY kits purchased from the Organization for Bat Conservation, and the project was funded by the NPLD DoD Legacy Award. Our volunteers had a blast putting together the kits for NPLD and installing them during BatWeek.





Georgia DNR Katrina Morris

Anabat Routes

Georgia had many acoustic routes being run this year across the state; continuing work started years ago for many of these routes (<http://georgiawildlife.com/AnabatProject>). Most of the routes were completed during the 2017 season, but analysis is just beginning for this season. Results from 2014 and 2015 are available on the website listed above. We are working on finishing our 2016 analysis, and those results will be posted on our website when they are complete. Some of our analysis done thus far includes looking at species presence over time on some of our north Georgia routes. Our findings from this are showing a severe decline in the number of *Perimyotis subflavus* being detected over time.

NA Bat

Georgia continued to run NABat routes that began in 2016, and they are currently developing four more routes of high priority sampling areas to be added to the sites for yearly sampling starting in 2018. The four new sites will be on state owned lands; three Wildlife Management Areas and one state park.



Bat associate, Maggie Hunt, preparing to run a NABat route on Cumberland Island National Seashore. Photo by Emily Ferrall

Summer 2017 Grad Student

UGA PhD student Jack Grider completed the field work for his joint project between UGA and GA DNR. He focused on re-sampling areas in north Georgia with historic capture records of northern long-eared bats. He sampled 20 sites where northern long-eared bats were previously captured, but only managed to capture a single non-reproductive female. Data from this summer will be used to determine the change in distribution for this species since white-nose syndrome has entered the state. Jack is spending the next few months finishing his analysis to get his final results, with a refined Georgia specific range map for *Myotis septentrionalis* being created from his results.

Bats in Bridges

The Georgia Department of Natural Resources organized three bats in bridges training classes for GDOT and private consultants. The purpose of these classes was to teach individuals how to detect and properly survey for bats in bridges to obtain accurate information on these roosts. These classes were a huge success, and we have already gotten requests for further similar trainings, so this is something GA DNR will be continuing in the years to come.



GA DNR biologists Laci Coleman and Trina Morris explain the details of looking for signs of bats on bridges during a training class. Photo by GA DNR



Georgia DNR...continued

White-nose Syndrome Winter Monitoring and Surveillance

As with previous years, we do not have the manpower with our biologists throughout the state to monitor every cave in the state every year. We are continuing to ask for caver volunteers from around the state to assist with WNS winter monitoring and surveillance. We ask these volunteers to submit a survey form, even if bats are not present. If there are bats present, then we ask those volunteers with swab kits to collect samples for us. More information on this project can be found here: <http://georgiawildlife.com/WNS>. We could not conduct the monitoring that we do without the help of these vital volunteers!

This year, total bat numbers are down 94% from their highest previous counts. For the 2017 year, no *Myotis* bats were observed in caves besides *Myotis grisescens*. *Myotis* bats have had lower numbers in Georgia caves compared to our most abundant cave species, *Perimyotis subflavus*, but we are now seeing declines in both of these groups. This decline in tri-colored bats is in concurrence with declines for this species that we are seeing in summer mist-net surveys and acoustic monitoring work. The GA DNR social media staff has worked hard to create an interactive page for the public to view regarding WNS, and this also contains the link to our yearly cave report. That page can be found here: <https://gadnrwrld.maps.arcgis.com/apps/MapSeries/index.html?appid=03857793d92d4b1eb197b0adc62ec130>



GA DNR biologists Tom Patrick and Trina Morris standing in an underground cavern during a cave survey. Photo by Alan Cressler

TAG Fall Cave-In

Education about bats and WNS continues to be a focus for GA DNR. We attended the Fall TAG Cave-In once again this year to provide information about WNS and decontamination protocols. We had crafts for kids related to bats; which was a huge success! This booth is a popular stop for event attendees, and it allows us to spread the most current knowledge we have on bats and WNS in the southeast.



GA DNR's Emily Ferrall standing in the DNR booth at the TAG Fall Cave-In. Photo by Trina Morris



Georgia Bat Working Group

Bat Blitz 2017

The Georgia Bat Working Group organized its 4th annual bat blitz this past May at Vogel State Park in Blairsville, GA. There were almost 50 participants at the blitz, with a variety of agencies, consulting firms, and universities being represented. A total of 62 bats were caught; 25 Eastern Red Bats (*Lasiurus borealis*), 24 Big Brown bats (*Eptesicus fuscus*), 10 Silver-haired bats (*Lasionycteris noctivagans*), 1 Seminole Bat (*Lasiurus seminolus*), and 2 Small-footed Bats (*Myotis leibii*). A very successful education event was held during the blitz, and this event was met with great interest! The education event had kids activities, a Georgia Bats presentation, and a mist-netting and Anabat demonstration to teach the public all about bats and how to study them.



The check in area for the Georgia 2017 bat blitz at Vogel State Park.



Ecological Solution's Kristi Confortin educating some young guest about mist nets and how to capture bats.

Education Committee

The Education Committee of the Georgia Bat Working Group organized and presented a half day educational event in conjunction with the GBWG's Bat Blitz held at Vogel State Park. During this 1st Annual Bat Day Event there were several formal presentations given featuring live Egyptian Fruit Bats from A-Z ANIMALS, presentations on echolocation explaining how bats navigate at night by a member of the GDOT and Bats of Georgia and a mist netting demonstration given by GA DNR. Also as part of the event Sharon Elementary School's Science club was on hand to present their bat related projects. There were booths for crafts, face painting, bat house building, tattoos, poster presentations from several college students, interactive games about bats and mist netting as well as informational booths and a display from UGA featuring Georgia's 16 species of bats. Several hundred people attended the afternoon event and enjoyed the activities and presentations. Organizations participating in the event and making it a huge success were GA DNR, GDOT, Habitat for Bats, Kennesaw University, Clemson University, A-Z ANIMALS, Sharon Elementary School Science club, UGA's Natural History Museum, Cochran Mill Nature Center, Ecological Solutions and US Forest Service.

GBWG Election Results

Laci Coleman, GA DNR- Chair
Emily Ferrall, GA DNR- Secretary
Kristi Confortin, Ecological Solutions- Treasurer
Pete Pattavina USFWS- Board
Chris Cornelison, Kennesaw State University- Board
Trina Morris GA DNR- Board
Maggie Hunt GA DNR- Board
Nikki Castleberry, GA Museum of Natural History- Board/Social Media Liaison
Dottie Brown, Ecological Solutions- Immediate Past Chair

Kentucky

Cumberland Gap National Historic Park

James Cox, III, Indiana State University

Indiana State University Master's student James Cox is preparing for a 2018 summer field season in Cumberland Gap National Historic Park, a park which spans across Tennessee, Kentucky, and Virginia. This project, funded by the National Park Service, aims to collect occurrence and ecological data on bats across the park to inform management and conservation efforts. James will sample the park with acoustics, mist netting, and radio telemetry, focusing on tracking WNS-affected bats such as *Myotis* species and *Perimyotis*. Combining occurrence data for focal species, James aims to develop probability of presence layers for WNS-affected bats in this Park. Our lab conducted a bat blitz in the park in August 2017. We captured 2 big brown bats, 8 eastern red bats, 2 eastern small-footed bats, and 1 tri-colored bats.



Mississippi

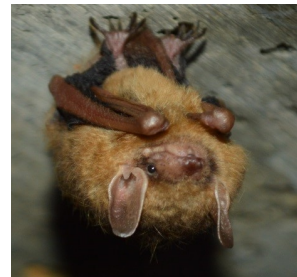
Mississippi Bat Working Group

Becky Rosamond

First Annual Culvert Blitz

In an effort to begin monitoring winter populations of bats in Mississippi, the Working Group held the first annual culvert blitz January 14, 2017. Culverts were primarily associated with interstate highways and major (4-lane) state highways, with routes (typically consisting of 8–12 culverts) spread across the state.

Thirty volunteers ran 14 routes and checked 134 culverts. Sixty-four of the inspected culverts had bats present. Over 989 bats were found representing four species with the tri-colored bat accounting for about two-thirds of the observations (630 individuals). Other species detected (in order of abundance) include southeastern *Myotis*, big brown bat, and Rafinesque's big-eared bat. The group plans to continue this blitz annually and is working to refine protocol and provide more formal training for the volunteers. Dates for the 2018 blitz are January 5–7. Contact the Mississippi Bat Working Group (msbats@hotmail.com) for more information.



Left to right, top/bottom volunteers measure culvert dimensions; southeastern bats in crevice; Rafinesque's big-eared bat; tri-colored bat.

Mississippi



Mississippi Bat Working Group....continued

Annual Meeting and Mist Net Event

The MBWG met for their 15th Annual Meeting at the Mississippi Museum of Natural Science in Jackson Mississippi on February 9. The morning was devoted to presentations on current research occurring in the state and updates on various monitoring activities. The afternoon agenda included a business meeting and discussion of upcoming events. Amber Floyd received the MBWG Service Award for her work setting up and maintaining the Group's website.

The 14th Annual Mist Net Event was held in Amite and Pike counties in south Mississippi. Twenty participants representing Mississippi, Alabama, and Louisiana gathered at Percy Quin State Park in McComb, Mississippi for two nights of mist netting. The group netted eight sites and captured twenty-one bats of three species. Species captured included evening bats, eastern red bats, and big brown bats. Thanks to all those who made this event possible, including our event sponsors, the Smith Family of Natchez and Chester Martin of Vicksburg. An extra "thank you" goes out to Chester Martin for providing artwork for the event t-shirt.

Bat Conservation Plan

Members of the MBWG, working with state biologists, began development of a "Bat Conservation Plan." When completed, the plan will identify information gaps and hopefully be used to guide funding to fill these gaps. Appendices within the plan will summarize life history information for each species within the state and provide county range maps.

Outreach and Education

Members of the group presented educational programs and invited talks throughout the state at schools, festivals and to various civic organizations, reaching over 1,000 individuals across the state. Additionally, the MBWG staffed booths at NatureFest (Jackson), Trace Wildlife Festival (Tupelo), the Choctaw Wildlife Festival (Philadelphia), and Park after Dark (Jackson). Some highlights from 2017 include:

- Development of a presentation on bats for use by any MBWG member with the goal of increasing the number of people available to present programs to groups.
- Construction of 5 single chamber bat houses by member Deb Waz available for use by the Museum of Natural Science Educators to increase their ability to provide bat programs to schools.
- Incorporation of a session on bats into the Human/Wildlife Conflicts class at Mississippi State University.

Members involved in education and outreach include: Tami Hataway, Nicole Hodges, Jackie Kerr, Chester Martin, Becky Rosamond, Jason Ross, Kathy Shelton, Shea Staten, and Deb Waz.

Other Items of Note

Chester Martin was inducted into the Hall of Fame of the National Military Fish and Wildlife Association (NMFWA) in Spokane, WA on 9 March 2017. He was part of the NMFWA founding body in 1983, served 5 terms on the NMFWA Board of Directors, was NMFWA President in 2003-2004, and founded the NMFWA Bat Working Group in 2001.

Mississippi State University is assisting The Birmingham Zoo (Birmingham, AL), in its efforts to better understand and inform the public about the ecology of bats within the greater Birmingham area. This project includes surveillance and habitat management for bats foraging and roosting on zoo grounds. Educational programs explaining ecological benefits of bats and their conservation in the southeastern United States are also key elements of this work.

State nongame biologist Kathy Shelton is working with a private landowner and other state and federal partners to gate Pitts Cave. Pitts Cave is home to the largest known maternal roost of southeastern bats in the state and provides wintering habitat for large numbers of tri-colored bats. This is the first gating project in recent history in the state.

Watch website (msbats.org) for updated information and follow on Facebook.



North Carolina

Gray Myotis Using Culvert Roost

Heather Wallace, CALYX

In August 2017, during routine checks of bridges and culverts for a proposed transportation project, CALYX Engineers and Consultants, Inc. biologists discovered bats roosting in a large box culvert in Buncombe County, NC. Further investigation over the following month revealed at least two hundred individuals using the culvert as a roost site. A portion of those bats have been determined to be gray bats (*Myotis grisescens*). Acoustic surveys, emergence counts, portal surveys, and potential telemetry studies are planned over the next year to further categorize the species, number of individuals, seasonal occupancy, and reproductive status of the bats using this culvert. This discovery marks the first known occurrence of gray bats using a culvert as a roost site in North Carolina.

Mexican Free-Tailed Bats

Mary Frazer, Three Oaks Engineering

The NC Bat Working Group built harp traps to survey a bridge-roosting colony of big brown bats and Mexican free-tailed bats, which they have been monitoring since 2010. Fifty-three big brown bats and 10 free-tails were captured in total, within a span of ~20 minutes. Netting this particular bridge with harp traps was found to be more effective than extracting bats from framed nets. The bridge is in central NC, on the edge of suburbia. Although the bridge is home to a maternity colony, adult male bats were also captured there.

At the annual meeting of the NC Bat Working Group, presentations were given about wildlife rehabilitation as it pertains to bats, followed up by a panel discussion. Currently, bats cannot be rehabilitated in North Carolina.



Oklahoma

Demographic Characteristics of Bats during Spring Emergence and Fall Swarming at a Cave in Eastern Oklahoma

Tyler J. Remick, Kory M. Armstrong, Richard Stark, and Lynn W. Robbins

Three federally listed species, threatened Northern long-eared bats (*Myotis septentrionalis*), endangered Gray bats (*M. grisescens*), and endangered Ozark Big-Eared bats (*Corynorhinus townsendii ingens*), have been documented in the Ozark Plateau National Wildlife Refuge (OPNWR). Due to the presence of these species, Environmental Solutions and Innovations (ESI) in conjunction with the U.S. Fish and Wildlife Service and the Oklahoma Department of Wildlife Conservation is in the process of conducting a study to assess demographic characteristics of bats during spring emergence and fall swarming as well as provide population estimates of northern long-eared bats by banding. These estimates are especially useful since this cave system was found positive for the fungus that causes White-Nose Syndrome (WNS) during 2016. Harp traps and mist nets were placed at three openings of a single cave system during five sampling periods from fall 2015 – fall 2017 (three fall swarming and two spring emergence periods). Demographic data, including sex, age, reproductive condition and mass was recorded for every individual. These results also were compared to summer data collected during the 2013 Bat Blitz in the same area.

Overall 2,431 bats were captured; including 976 northern long-eared bats, 524 gray bats, and 40 Ozark big-eared bats. Species captured that are not federally listed included 805 tri-colored bats (*Perimyotis subflavus*), 12 big brown bats (*Eptesicus fuscus*), 10 eastern red bats (*Lasiurus borealis*), 3 evening bats (*Nycticeius humeralis*), and 1 Eastern small-footed bat (*Myotis leibii*), which was a new county record. Differences in mass were shown between fall swarming and spring emergence as well as fall swarming and summer mass for both tri-colored bats and northern long-eared bats. Gray bats did not show a difference in mass among any of the sampling periods. This indicated that both tri-colored bats and northern long-eared bats were putting on fat in preparation for hibernation, and likely use these caves for hibernacula, whereas gray bats are either in transit or have not departed to the hibernacula. Over the course of the five periods, 10 northern long-eared bats were recaptured. Based on these data and observations, we estimate over 1,000 individuals of Northern Long Eared Bats during each survey. These data not only provide physical responses of these bats during these seasonal periods, but can also be used as a basis to determine population and community changes associated with WNS.

Check out these great video summaries!

OPNWR Research: https://www.youtube.com/watch?v=i_NgwVdbubQ&t=9s

Northern long-eared Bat: <https://www.youtube.com/watch?v=8164skd9YRQ>

Eastern Red Bat: <https://www.youtube.com/watch?v=in7WY7VPPIA>



NABCA Update

A request from the North American Bat Conservation Alliance:

Dear Bat Conservation Colleagues,

Do you have information on how to address threats to bats that you can share with the conservation community?

The North American Bat Conservation Alliance has developed a special Wiki for sharing information on bat conservation.

batconservationalliance.wikidot.com

Anybody with information on ways to address particular threats facing bats in North America is invited to sign in to the Wiki and contribute their information. The Wiki was developed to allow experts to share information on approaches for mitigating these threats with other experts and conservation practitioners. Ideally, you would post a brief summary of approaches that you have tried, with information on whether they worked (or didn't work) and links to resources with more details.

The site is organized based on the various threats that face bats in North America. The wiki launch was announced at the North American Symposium on Bat Research in October (Knoxville, TN). Some information has already been posted, but we are looking to folks with on-the-ground experience in bat conservation to share their knowledge and build up this site.

I hope you will participate by reviewing/editing and adding data to the wiki. We have provided some simple instructions on how to do this, which are posted on the wiki.

If you have questions, feel free to reach out to me or any members of the NABCA Steering Committee.



Awards and Recognition

SBDN SERVICE AWARD

Purpose: To recognize outstanding service and contributions to the Southeastern Bat Diversity Network.

Nomination Procedure: The SBDN awards committee will call for nominations in September or October of each year through the SBDN mailing list. Nominations will be submitted to the committee by December 1. Nominations can be submitted by any SBDN member, including members of the Executive Committee and the Awards Committee. Nominations will consist of a letter that describes the nominee's service to SBDN. The committee will review the nominations and evaluate them based on significance of the contributions to SBDN. One name will be forwarded to the SBDN Executive Committee for final approval by January 1. If no worthy nominees have been submitted for consideration, no name will be forwarded to the Executive Committee.

Award Process: The awardee will be announced at the SBDN annual meeting, usually held in February. A plaque will be presented to the awardee by the previous recipient or the SBDN president. The Awards committee will be responsible for obtaining the plaque and funds will be provided by SBDN. A copy of the nomination letter and pictures of the award presentation will be deposited in the SBDN archive.

SBDN LIFETIME ACHIEVEMENT AWARD

Purpose: To recognize individuals who have made significant contributions to the conservation of southeastern bats through research, education, or management efforts. The intent of this award is to recognize more senior individuals who have amassed a variety of accomplishments throughout their careers. The award is SBDN's highest honor. The award may not be given every year.

Nomination Procedure: The SBDN awards committee will call for nominations in September or October of each year through the SBDN mailing list. Nominations can be submitted by any SBDN member, including members of the Executive Committee and the Awards Committee. Nominations will be submitted to the committee by December 1. Nominations will consist of: 1) a letter that describes the nominee's accomplishments and how they have impacted bat conservation in the southeast, and 2) the nominee's Curriculum Vitae. The committee will review the nominations and evaluate them based on the totality of the accomplishments and their impact on bat conservation and/or our understanding of bat ecology. The committee will forward one name to the SBDN Executive Committee for final approval by January 1. If no worthy nominees have been submitted for consideration, no name will be forwarded to the Executive Committee.

Award Process: The awardee will be announced at the SBDN annual meeting, usually held in February. A plaque will be presented to the awardee by the previous recipient or the SBDN president. The Awards committee will be responsible for obtaining the plaque and funds will be provided by SBDN. A copy of the nomination letter, the awardees' CV, and pictures of the award presentation will be deposited in the SBDN archive.

History of the Mammal Colloquium and SBDN Meetings

COLLOQUIUM	SBDN	YEAR	LOCATION
28 th	23 rd	2018	Roanoke, VA
27 th	22 nd	2017	Asheville, NC
26 th	21 st	2016	Guntersville, AL
25 th	20 th	2015	St. Louis, MO
24 th	19 th	2014	Nacogdoches, TX
23 rd	18 th	2013	Fall Creek Falls, TN
22 nd	17 th	2012	Louisville, MS
21 st	16 th	2011	Louisville, KY
20 th	15 th	2010	Asheville, NC
19 th	14 th	2009	Jonesboro, AR
18 th	13 th	2008	Blacksburg, VA
17 th	12 th	2007	Destin, FL
16 th	11 th	2006	Chattanooga, TN
15 th	10 th	2005	Paris Landing, TN
14 th	9 th	2004	Helen, GA
13 th	8 th	2003	Mississippi State, MS
12 th	7 th	2002	Clemson, SC
11 th	6 th	2001	Memphis, TN
10 th	5 th	2000	Guntersville, AL
9 th	4 th	1999	Wytheville, VA
8 th	3 rd	1998	Hot Springs, AR
7 th	2 nd	1997	Black Mountain, NC
6 th	1 st	1996	Somerset, KY
5 th		1995	Cookeville, TN
4 th		1994	Athens, GA
3 rd		1993	Mountain View, AR
2 nd		1992	Guntersville, AL
1 st		1991	Memphis, TN

Upcoming Events



**North American Joint Bat Working Group Meeting
&
28th Annual Colloquium on the Conservation of Mammals
in the Southeastern United States**

**March 27 - 29, 2018
Hotel Roanoke, Roanoke, VA**

Register online at: <https://donate.batconservation.org/roanoke/events/north-american-joint-bat-working-group-meeting/e147967>.

Annual Meeting
of the
American Society of
MAMMALOGISTS
»» 2018 ««
— MANHATTAN, KANSAS —



Kansas State University, Manhattan, Kansas
June 25 - 29 2018



25th Annual Conference of the Wildlife Society
October 7 - 11, 2018
Cleveland, Ohio



Mississippi Bat Working Group
February TBA 2017
Mississippi Museum of Natural Science, MS

48th North American Symposium on Bat Research

Jorge Ortega Reyes, Instituto Politécnico Nacional

October 24 - 27 2018

The Westin Resort and Spa, Puerto Vallarta, México

Editors Closing Comments



I know I keep saying it, but its true,
“Another great Newsletter!”
None of this is possible without all of you!



Thank You! Thank You! Thank You!



It is my hope that you all had a truly Merry Christmas,
and as Dewey has said
an extremely bright and prosperous New Year!!

As always: Be safe and take good notes!

