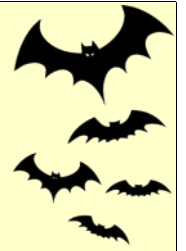




Nightwing News

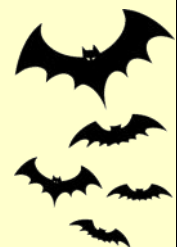


The Newsletter of the Southeastern Bat Diversity Network



Volume 110, Number 2

Fall/Winter 2020





Nightwing News



The Newsletter of the Southeastern Bat Diversity Network

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Cover Photo: by Price Sewell, Copperhead Consulting

Big brown bat on released, captured during a bat migration study in Iowa, Fall 2019.

President's Address:

Like most of you, I really can't say where the last six months have gone, so the idea that this is my last letter from the president has come much sooner than I expected. In my first letter I emphasized how important the "Network" part of the SBDN was to me, and I closed my previous letter in the spring with a comment on the effects of the pandemic, hoping we would be returning to field work and bat blitzes soon. Unfortunately, that was not the case. The SBDN and most, if not all, state blitzes and meetings were either canceled or will be conducted virtually this year making networking more challenging than ever. We've all adapted, but I look forward to the days when we can all get back together and swap field stories of interesting captures, great restaurants, rainouts, net sites, and maybe not so great lodging accommodations.

I would like to thank the SBDN Executive Committee for all their help over the last 2 years, especially for enduring far more conference calls than I may have originally promised (Holly). I would also like to thank all the committees and especially J. D. Wilhide, editor of Nightwing News, for keeping the SBDN on track during challenging times. I look forward to continuing to work with our incoming president Dr. Holly Ober and the rest of the Executive Committee as past-president for the next two years, and I want to extend a special thanks to Trina Morris, who will complete her 6-year run on the Executive Committee in February. I'd say that Trina's common sense and sense of humor will be missed, but I suspect she will continue to be a leader of bat conservation and involved in SBDN for a long time to come.

The SBDN WILL meet in person again in 2022, and when we do, I think we will all remember how lucky we are to be a part of this community. Thank you all for the opportunity to serve as president. Please stay safe this winter, and I hope to be able see everyone sometime really soon.

Steve Samoray

Executive Committee Contact Information

President:

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Board Member at Large:

Scott Bergeson
Indiana State University
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Executive Committee Meeting

**Southeastern Bat Diversity Network
Executive Committee
Minutes of the Mid-Year Board Meeting
October 6th, 2020**

Attendees

Steve Samoray, President

Trina Morris, Past President

Holly Ober, Incoming President

Luke Dodd, Treasurer

Katherine Etchison, Secretary

Scott Bergeson, Member at Large

Action Items:

AI1: Morris, Burns, and Pattavina revise Bat Blitz host package.

AI2: Morris contact NABCA about potentially creating a Bats of North America poster to go along with the State of North American Bats assessment.

AI3: Samoray ask Robinson to add 2020 Lifetime Achievement Award Winner, John MacGregor, to website.

AI4: Samoray ask Robinson to talk to website hosts about making outputs from transactions more streamlined ahead of 2022 annual meeting.

AI5: Dodd calculate the percentage of transactions that use PayPal to decide whether to keep this payment option on the website.

AI6: Samoray alert Awards Committee of change in student travel award.

Call to order: 12:33 PM EST, President Samoray

February 2020 Executive Committee Meeting Action Items:

AI1: Complete. Morris and 2020 SBDN Meeting Hosts revise meeting host package while planning 2020 meeting.

AI2: Not complete. Morris, Burns, and Pattavina revise Bat Blitz host package.

AI3: Complete. Morris and 2020 SBDN Meeting Hosts revise meeting host package when 2020 meeting concludes.

AI4: Complete. Morris send final hotel room numbers from 2020 meeting to Risch for next year's meeting planning.

AI5: Not complete. Morris contact NABCA about potentially creating a Bats of North America poster to go along with the State of North American Bats assessment.

AI6: Complete. Samoray ask Robinson to add 2017 Lifetime Achievement Award Winner, Dennis Krusac, to website.

A17: Not complete. Samoray ask Robinson to talk to website hosts about making outputs from transactions more streamlined.

A18: Not complete. Dodd calculate the percentage of transactions that use PayPal to decide whether to keep this payment option on the website.

New Business

Bats and Mines Meeting

The Bats and Mines meeting was scheduled for October 6-7, 2020 in Louisville, KY but was postponed until October 2021 because of COVID-19.

2021 SBDN Meeting

The EC is planning a virtual meeting to occur in February and the details will be worked out over the next several months. Bergeson is using Gather for a poster symposium in November and will report on its functionality to the EC.

2022 SBDN Meeting

The 2022 SBDN Meeting and Mammal Colloquium will be held in Jonesboro, Arkansas at the new Embassy Suites Red Wolf Convention Center, dates to be determined.

2023 SBDN Meeting

The 2023 SBDN Meeting and Mammal Colloquium will be held in Hilton Head, South Carolina. Lydia Moore from the Palmetto Bluff Conservancy is working on assembling a host committee.

Elections

Elections for the SBDN Secretary, President Elect, and Member at Large will be held in November. Morris will send out a nomination announcement to the email list by the end of October.

Treasurer's Report (Dodd):

As of 6 Oct 2020, a total of \$82,125.41 was distributed across SBDN accounts (Table 1). Of that, \$3289.99 was in our general account. Membership dues remain our primary source of operating income. The largest expenses to be incurred this past year are related to tax preparation (\$600, awaiting invoice) and website maintenance (\$2,100 in 2018, \$350 in 2019, \$523.12 in 2020 to date). The inflow of funds for the year to date totaled \$ 38,731.96, whereas outflows totaled \$40,718.32. The inflow of funds reported in the Fall 2019 meeting (for the year to date) totaled \$59,466.04, whereas outflows totaled \$56,770.89. This year-to-year variation illustrates the impact COVID-19 has had on the overall financial activity of our organization. Even so, we serve as a bank for 5 different state bat working groups (AL, GA, KY, NC, and 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, there have been 67 transactions from 2020 to date.

Respectfully submitted: 6 Oct 2020 – By Luke Dodd – SBDN Treasurer.

⚡ Banking	\$82,125.41
Bat Blitz Funds	15,062.19
Big Eared Bat Symposium	2,659.25
Colloquium Surplus Funds	40,898.81
2020 Meeting	0.00
IB Reward Account	529.16
SBDN - General Account	3,289.99
SBDN - Student Travel Award	6,175.73
NC Bat Working Group	1,205.00
GA Bat Working Group	2,137.72
KY Bat Working Group	2,913.11
AL Bat Working Group	6,157.34
TN BWG	1,097.11
<i>More Accounts</i>	0.00
⚡ Separate ⓘ	\$0.00
<i>More Accounts</i>	0.00

Awards

The EC voted to give two \$500 Student Travel Awards to students presenting at the North American Symposium on Bat Research instead of one in the future. Recent silent auction proceeds have made this funding opportunity possible. The possibility of awarding small research grants to students was discussed, but no decisions were made.

Committees

The EC discussed the idea of inviting committee chairs to provide an update at the EC Meetings and/or the Business meeting. This could increase interaction between the EC and committee chairs and encourage membership involvement in committees.

COMMITTEE UPDATES

Website Committee (Robinson): No updates, but Robinson is willing to help with the virtual meeting.

Blitz Committee (Pattavina/Burns): Bat Blitz 2021 will be August 2-6 at Camp McDowell, Alabama.

Membership Committee (Bergeson): A membership survey will be sent out in October or November to evaluate membership satisfaction and to ask for suggestions. This survey will include questions about the virtual meeting. The EC discussed making the virtual meeting a members-only event to increase membership and to avoid losing members in 2021 with no in-person meeting.

Awards Committee (Burnett): The student travel award was not given this year since NASBR was postponed to 2021. The EC voted to award two student travel awards in the future and to postpone giving a lifetime achievement award until 2022 since the 2021 meeting will be virtual.

NABCA Update (Morris): Species assessments for the State of the Bats report are ongoing. If anyone wants to provide input, please reach out to Morris. Bat Conservation International is also involved with this effort.

Meeting adjourned at 1:42PM EDT.

Committee Contact Information

BAT BLITZ COMMITTEE

Member

Pete Pattavina (Co-Chair)

Leanne Burns (Co-Chair)

Tim Carter

Nikki Castleberry

Michael Whitby

Bree McMurray

Katrina Morris

Joy O'Keefe

Gary Libby

Jason Robinson

Katie Teets

Affiliation

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Bat Biologist-Independent Biological Consultant

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Pallavi Sirajuddin

Kristina Hammond-Rendon

Lisa Gatens

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Blake Sasse

Indiana State University

Mammoth Cave National Park

Arkansas Game and Fish Commission

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Katie Gillies

Katherine Caldwell

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Dottie Brown

Caroline Byrne

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Bat Conservation International

NC Wildlife Resources Commission

UT-Knoxville

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Brian Carver

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WEBSITE COMMITTEE

Jason Robinson Chair)

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Committee Reports

BAT BLITZ COMMITTEE:

Bat Blitz 2021 will be August 2-6 at Camp McDowell, Alabama.

AWARDS COMMITTEE:

The student travel award was not given this year since NASBR was postponed to 2021. The EC voted to award two student travel awards in the future and to postpone giving a lifetime achievement award until 2022 since the 2021 meeting will be virtual.

MEMBERSHIP COMMITTEE:

A membership survey will be sent out in October or November to evaluate membership satisfaction and to ask for suggestions. This survey will include questions about the virtual meeting. The EC discussed making the virtual meeting a members-only event to increase membership and to avoid losing members in 2021 with no in-person meeting.

WEBSITE COMMITTEE:

No updates, but Robinson is willing to help with the virtual meeting.

NABCA UPDATE:

Species assessments for the State of the Bats report are ongoing. If anyone wants to provide input, please reach out to Morris. Bat Conservation International is also involved with this effort.

2020 SBDN BAT BLITZ

SBDN's postponed Annual Bat Blitz will now take place in 2021.

As planned for the original 2020 event, the 2021 Annual Bat Blitz will be hosted by the Alabama Bat Working Group at the Bankhead National Forest in northern Alabama, from August 2-6, 2021.

Details about the updated event will be available on our website shortly: <https://sbdn.org/bat-blitzes-2/>. Blitz headquarters will be at Camp McDowell in Nauvoo, Alabama, (<https://campmcdowell.com/conference-center/accommodations>).

The exact number of participants is yet to be determined, but we hope to again welcome a mix of bat biologists, wildlife professionals, and volunteers to attend.

The 2021 SBDN blitz aims to exactly replicate netting sites surveyed in 2008, six-years before the detection of white-nose syndrome.

Our local blitz hosts have begun revisiting the 2008 net locations to update sitemaps and ensure they are still reusable.

We plan to compare captures at our upcoming 2021 blitz (seven years after white-nose syndrome) to captures in 2008.

Special thanks to the U.S. Forest Service, our blitz hosts, for all their hard work.

We are continuing to monitor the COVID-19 situation and appropriate precautions, if necessary, will be determined closer to the event.

Stay tuned for registration information.

Forest Management and Bats Booklet

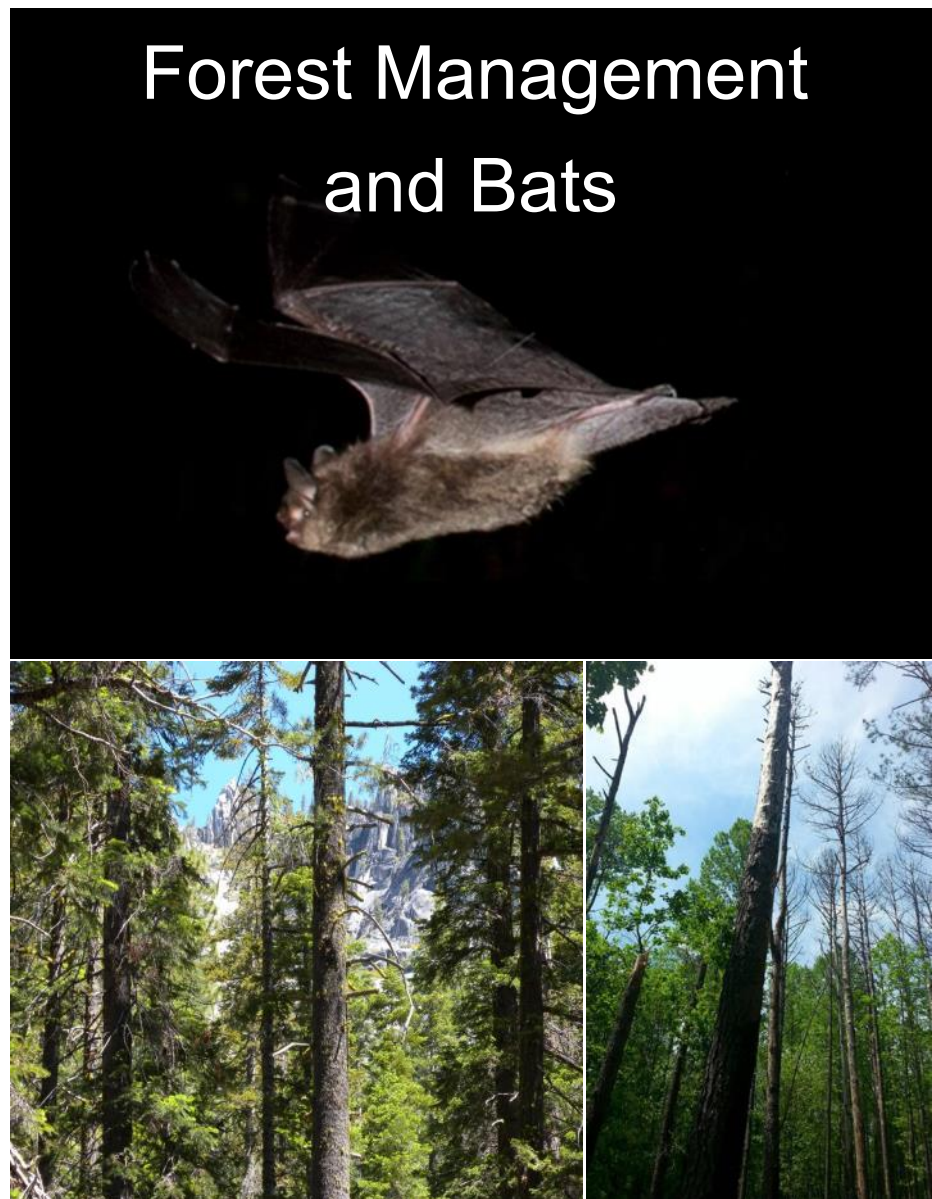
So the Forest Management and Bats booklet finally came out. USFWS will be publishing a few copies. When they do, I will get some and distribute. Below is the link to the booklet on the WNS page, along with a link directly to the document. Note, as I have found in the past, the WNS website does not work well with Internet Explorer, so I have to access their site using Chrome. Thanks for the help on this guys.

<https://www.whitenosesyndrome.org/static-page/management-practices>

or directly to the booklet:

<https://s3.us-west-2.amazonaws.com/prod-is-cms-assets/wns/prod/16cce6d0-13ce-11eb-8166-337c3d472ee8-Forest-Management-and-Bats-ASSEMBLED-final.pdf>

Roger W. Perry, PhD
Research Wildlife Biologist
U.S. Forest Service
Southern Research Station



SBDN 2021 VIRTUAL MEETING



**26th Annual Meeting of the
Southeastern Bat Diversity
Network and the 31st Annual
Colloquium on the Conserva-
tion of Mammals in the South-
eastern U.S**

**Thursday, February 25th,
2021
10 am – 6 pm EST**

MEETING ANNOUNCEMENT

We invite you to join us for the 26th Annual Meeting of the Southeastern Bat Diversity Network and 31st Annual Colloquium on the Conservation of Mammals in the Southeastern United States virtually on February 25th, 2021. This virtual meeting will bring together biologists, private and public land managers, private consultation organizations, educational institutions, and citizen scientists from across the Southeast.

Online Registration: <https://sbdn.org/shop/2021-virtual-sbdn-meeting-registration/>

Registration Cost:

Professional Meeting Registration and SBDN Membership = \$21

Meeting Registration Only = \$21

Student Meeting Registration and SBDN Membership = \$11

Student Meeting Registration Only = \$11

Program Overview: This one-day meeting will consist of a plenary session, poster sessions, SBDN Business Meeting and an informal social.

Plenary Session: General Topic - Cross-species virus transmission among mammals. Planning is still underway. Please contact [Holly Ober](#) if you have any suggestions or would like to assist with session planning.

SBDN 2021 VIRTUAL MEETING

Poster Sessions: We invite all interested parties with research and monitoring topics involving mammals to present findings during one of the poster sessions. See the Call for Poster Abstracts below for more information.

Virtual Platforms: We are planning to conduct the meeting through a combination of [Zoom](#) and [Gather.town](#) platforms.

CALL FOR POSTER ABSTRACTS

The 2021 meeting will provide a forum for student and professional poster presentations on any topic related to mammals. We encourage students, researchers, and policy-makers to share their knowledge. This is an excellent opportunity to present preliminary or final research findings before a large group of professional mammalogists that can provide feedback and insight into your studies and results. Please follow the instructions below for submitting abstracts and preparing poster presentations.

The deadline for abstract submittal is January 22, 2021.

Note: All presenters must register for the meeting. Registration information will be available soon at <https://sbdn.org/annual-meeting/>. Your poster session presentation time will be specified in the meeting agenda that will be sent to registrants prior to the meeting.

INSTRUCTIONS FOR PREPARING AND SUBMITTING ABSTRACTS

Abstract submittal deadline is January 22, 2021. Abstracts should be <300 words and include the name, organization, and address of authors, title, study justification, objectives, brief methods, summarized results, and discussion of results. Underline the name of the author that will be presenting the poster. Submit abstracts electronically in Microsoft Word format to [Katherine Etchison](#) and include "Abstract SBDN 2021" in the subject line.

Follow the format guidelines below when preparing your abstract. An example abstract is provided on the previous page.

- Title should be in all capital letters, bold and centered
- Include names and current addresses of authors after the title
- Italicize addresses of authors
- Underline the name of the presenter
- Indicate student presenters with an asterisk (*)
- Use 12-point Times New Roman font
- Use 1-inch margins on all sides
- Left justify only (everything except the title)

SBDN 2021 VIRTUAL MEETING

EXAMPLE ABSTRACT

Presentation Type: Poster

Presenter Status: Student

Presenter's E-mail: student@school.edu

HIGH-ELEVATION OBSERVATIONS OF LONG-TAILED WEASEL AND EASTERN CHIPMUNK IN THE SOUTHERN APPALACHIANS

A. M. Moser*, C. A. Diggins, and W. M. Ford

Department of Fish and Wildlife Conservation, Virginia Tech, Blacksburg, VA 24060 (AMM and CAD); Virginia Cooperative Fish and Wildlife Research Unit, USGS, Blacksburg, VA 24060 (WMF)

Observations of Long-tailed Weasel (*Mustela frenata*) are rare within the southern Appalachians, while observations of Eastern Chipmunk (*Tamias striatus*) in high-elevation spruce-fir forests are uncommon. We conducted camera trap surveys at Roan Mountain Highlands in Red Spruce (*Picea rubens*) – Fraser Fir (*Abies fraseri*) forest during summer 2016. During the survey, we observed a Long-tailed Weasel at 1893 m in elevation and an Eastern Chipmunk at 1703 m in elevation. These are the highest elevation records for both species in the eastern United States outside of Great Smoky Mountains National Park, and the highest elevation record for Long-tailed Weasel in North Carolina.

Follow the guidelines below for preparing posters

- Overall size should be 12x9 inches
- Title should be capitalized with lettering around 32-point font
- Authors and affiliations should be in upper- and lower-case around 20-point font
- Text lettering should be at least 14-point font
- Most posters should include the following sections: Abstract, Introduction, Materials and Methods, Results and Discussion, Conclusions, Literature Cited
- Keep written text to a minimum. "Bullets" and short phrases are most effective

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

Arkansas

Blake Sasse
Nongame Mammal/Furbearer
Program Leader, Arkansas Game and Fish Commission

Arkansas Game and Fish Commission

This spring the Commission added the Little brown bat to the state endangered species list due to declines associated with White-nose Syndrome. Blake Sasse continued his research on the summer roosting ecology of bridges by the small-footed bat and has partnered with Dr. Don White of the University of Arkansas Monticello in analyzing habitat at these sites. After best practices for bat handling during the COVID-19 pandemic were developed he spent a significant amount of time mist netting at the Scott Henderson Gulf Mountain WMA in north-central Arkansas. In September, Blake was honored with the Commission's Wildlife Biologist of the Year Award for 2020. This winter he will again be conducting searches for caves on several WMAs. The Commission contracted with Mitigation Surveying Services, LLC to mist net a number of WMAs in the Ozarks and they captured a male Indiana bat at an WMA at which they hadn't previously been found.

U.S. Fish and Wildlife Service

Pedro Ardapple-Kindberg, with the Arkansas Ecological Services Field Office, has been actively seeking funding for gating caves used by the Ozark Big-Eared Bat and numerous gates, including at several important sites at Devil's Den State Park, are planned to be built in the summer of 2021. Tommy Inebnit organized the annual Arkansas Karst and Bat Conservation meeting which was hosted virtually by The Nature Conservancy on October 29th.

Arkansas

Arkansas State University

Heather Custer, M.S. Graduate student of Biological Sciences in Dr. Tom Risch's lab, completed her third field season researching the spring migration and summer habitat of Indiana bats (*Myotis sodalis*) in Arkansas. Heather monitored an active Indiana bat maternity colony in the Arkansas Delta region that was located during this project in 2019. Artificial BrandenBark roosts were placed in September 2019 to provide stable habitat for the colony, especially in an area where timber is inundated for long periods throughout the year. Heather and team constructed guano collectors that were installed onto the artificial roosts to assist with passive monitoring of the colony throughout the season. Heather observed guano present on the collectors in spring and further efforts (emergence counts and mist-netting) confirmed that the maternity colony was using the newly placed artificial roosts. The average size of this colony is estimated to be 34 individuals, similar to the size from 2019 (averaged 36 individuals) and were still present at the maternity site into early October. With one field season left in this project, we hope to locate additional maternity colonies in Arkansas and develop a better understanding of the migration patterns of the species that overwinter in Arkansas. As part of the same project Arin Vann recently defended her thesis on the migration ecology of Indiana bats. Her work focused on the timing and distance of spring migration of female Indiana bats and the roosts used during staging and migration.

In Dr. Virginie Rolland's lab, Valerie Kearny completed her field season studying the ecology of small-footed bats in the Ouachita National Forest and successfully located numerous roosts in talus slopes. Anneka Lamb will be starting her research on the use of road culverts by tricolored bats in southern Arkansas this winter.



Florida

Florida bonneted bats and

Everglades restoration

By Elizabeth Braun de Torrez

FWRI, in conjunction with University of Florida, has completed the first year of a multi-year project assessing the effects of hydrological restoration on the endangered Florida bonneted bat, *Eumops floridanus* in south-west Florida. The Picayune Strand Restoration Project (PSRP) is the first project of the Comprehensive Everglades Restoration Plan (CERP), which is deemed to be the largest ecosystem restoration program in the world. The PSRP is designed to restore water flow to natural conditions by plugging 48 miles of canals, removing 260 miles of roads, and constructing three pump stations in an area previously slated for a housing development. This restoration effort will directly restore more than 55,000 acres of natural wetland habitat and indirectly affect over 2.5 million acres of surrounding public lands and estuaries. Our research project takes place in Picayune Strand State Forest, Collier-Seminole State Park, Fakahatchee Strand Preserve State Park, Florida Panther National Wildlife Refuge, Ten Thousand Islands National Wildlife Refuge, and Big Cypress National Preserve. Our primary objectives are to determine how hydrological restoration efforts are affecting foraging and roosting habitat selection of Florida bonneted bats. To address these objectives, we are conducting comprehensive acoustic surveys and searching for roosts across a restoration gradient to develop predictions of how bats may respond to future changes in vegetation and water availability. At each acoustic survey site and roost location, we are collecting vegetation structure and hydrological data and will relate these data to metrics of habitat use by Florida bonneted bats. The data we are collecting will also serve as a baseline for comparison to post-restoration monitoring efforts in areas currently undergoing restoration. During this past field season (January – August), we conducted four rounds of acoustic surveys at 97 locations and conducted roost location efforts spread across the PSRP. Along the way, we experienced many challenges and setbacks due to COVID-19, interactions with wildlife (FWC biologist Katie Piccora was bit by a 6-foot gator!), pesky bears messing with our equipment, and difficulty accessing remote sites, but were amazingly able to pull off a successful year in good spirits!!



From left to right: Florida bonneted bat captured with mist net; FWC biologist Jonas Borkholder using radio-telemetry to search for a radio-transmitter signal from deep within Fakahatchee Strand Preserve State Park; Florida bonneted bat roost tree discovered in a royal palm snag during this project

Florida



Top left: Covid-19 precautions during FWC fieldwork (Liz Braun, Julie York, Katie Picora and Laura Nicholson). Top right: Black bear using our hydrostation as a head scratcher; Bottom left: FWC biologist Katie Picora remaining positive after getting bit by an alligator earlier in the season; Bottom right: big gator in the PSRP

Florida



Photos: Top left – ultrasonic bat detector deployed in mangroves of Collier-Seminole State Park, accessible by kayak when water levels are high from wet season; Bottom left – FWC biologist Katie Piccora struggling through mud to access same detector site when water has dried up in dry season; Bottom right – FWC regular service volunteer and UF master's student, Laura Nicholson, successfully using snow shoes to walk across mudflats to access the detector site!!



Florida

White-nose Syndrome Monitoring and Surveillance

Lisa Smith, Florida Fish and Wildlife Conservation Commission

FWC biologists surveyed 33 caves and 67 culverts last winter as part of continued population monitoring and swabbed bats for Pd at 5 caves, 2 bridges, and 1 culvert. All swabs came back negative for Pd and Florida appears to be safe from WNS for another year. In addition to monitoring for Pd, biologists are continuing research on cave microclimate and building on previous culvert research. Last winter biologists conducted repeat surveys at culverts to determine when bats are roosting in culverts and to evaluate within season variation in bat counts to inform future monitoring efforts and to begin to develop management guidelines for DOT.



Healthy tri-colored bat cluster roosting in a culvert.

Photo by Daniel Batie

Florida

Unusual find in a bat hibernaculum

Lisa Smith, Florida Fish and Wildlife Conservation Commission



During a routine cave bat hibernaculum survey in Jackson County, Florida, biologists conducting a survey for wintering bats incidentally encountered a river otter natal den consisting of three pups in a small passage within the cave. We estimate that the pups were likely born in late January to early February. The natal den occurred in an area of complete darkness, 9.6 m away from the nearest entrance. Caves may make ideal natal dens due to reduced disturbance by predators and a stable temperature and humidity protected from harsh weather so keep an eye out for these critters!

Florida

Pup counts at noncave roosts

Mike Gillikin, Florida Fish and Wildlife Conservation Commission

Beginning in April, FWC conducted a pilot project to survey non-cave maternity roosts in an effort to determine whether the bat maternity season dates that are established by rule are effectively protecting bats during one of their most vulnerable periods. Survey efforts for this pilot study were hampered due to COVID-19 impacts. In total, 10 occupied bat houses were surveyed from mid-April to mid-August. Seven of those houses had pups at some point during the survey period. No pups were observed before or after the established maternity season. Next year, the FWC intends to continue, and expand, these surveys, ensuring sufficient geographic representation.



Photos are from Storm Wittenberg, FWC



Florida

Lorraine "Rain" Ketzler, AWB

USFWS Wildlife Biologist/Liaison to Hurlburt Field, FL

USFWS initiated NABat Surveys on Hurlburt Field and Eglin AFB, in the Florida panhandle, in August and September 2020. We deployed stationary acoustic devices across 7 GRTS, spanning 3 counties and 2 military installations. This survey will follow FWC's Long-term Monitoring Protocol (quarterly surveys) while meeting the NABat requirements as we roll through the year and into 2021, and is a partnership project between the US Air Force and US Fish and Wildlife Service. Personnel followed CDC guidelines.



Photo (attached) by: Lorraine Ketzler (Pettersson d500x deployed in longleaf pine red-cockaded woodpecker cluster on Eglin AFB).



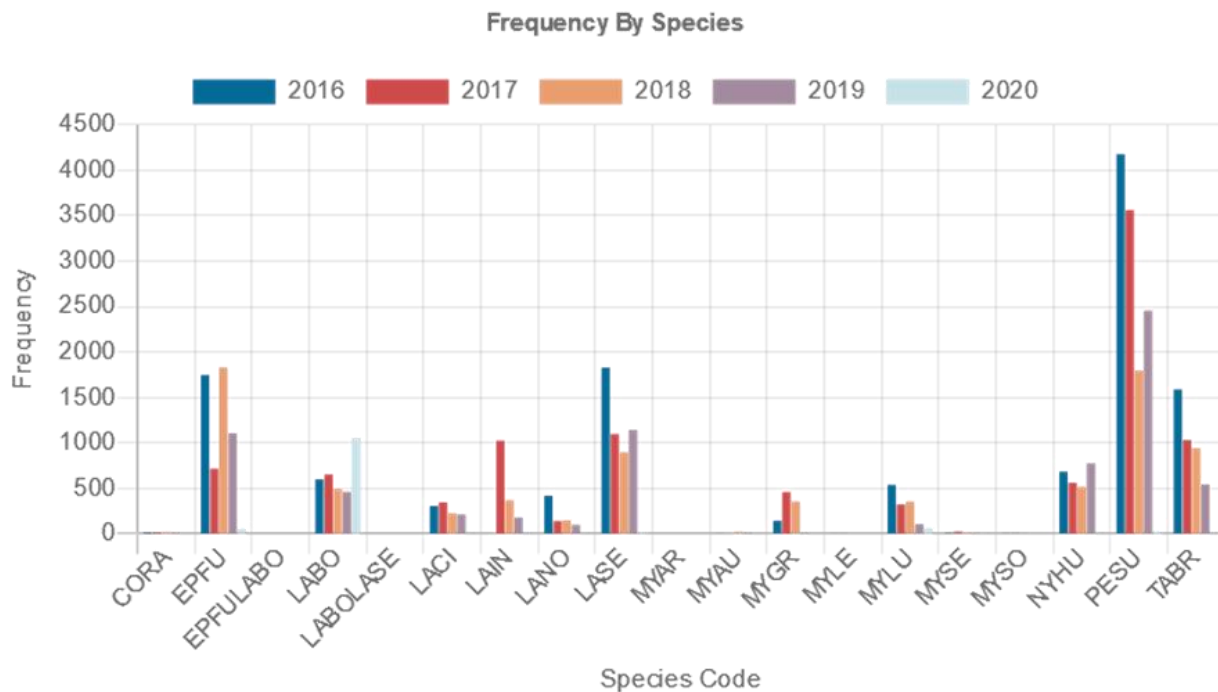
GA DNR

GA DNR Mobile Acoustic Routes

GA DNR volunteers have been collecting bat call data through our GA DNR Mobile Acoustic Project since 2014 (<http://georgiawildlife.com/AnabatProject>). The original national acoustic survey protocol provided guidelines for states to follow when starting monitoring programs. Most of the routes were completed during 2020, but analysis is just beginning for this season. Results from 2014-2017 are available on the website listed above. We have also begun a new project to submit the data on the NABat database and we will be continuing to collect and enter this acoustic data collected with the original protocols.

NA Bat

Georgia transitioned several old mobile routes to NA Bat routes this year and began an NA Bat volunteer program for the mobile routes. Led by DNR technician Emily Ferrall, two seasonal technicians, Scout Hogan and Catherine Marquez collected stationary and mobile calls, analyzed data and uploaded it to the NA Bat database. Most of the rest of the 30 samples were collected by US Forest Service employees and volunteers. The techs were able to get call data uploaded through the 2019 survey season and started on 2020.



Screenshot of frequency by species calls from the NABat website with data currently submitted.

GBWG board members:

Laci Pattavina, GA DNR, laci_pattavina@fws.gov - Chair

Emily Ferrall, GA DNR, emily.ferrall@dnr.ga.gov – Secretary

Maggie Hunt GA DNR, aduddell.ma@gmail.com- Treasurer

Pete Pattavina USFWS, pete_pattavina@fws.gov - Board

Chris Cornelison, Kennesaw State University, ccornel5@kennesaw.edu - Board

Trina Morris GA DNR, katrina.morris@dnr.ga.gov - Board

Nikki Castleberry, GA Museum of Natural History, neotoma@uga.edu – Board



White-nose Syndrome Winter Monitoring & Surveillance in Culverts

Unfortunately, this year three new counties were identified as positive for Pd, the first discovered in Georgia since 2015. The addition of Carroll, Clarke and Monroe counties marks the movement of Pd from caves in north Georgia to culverts in the state's Piedmont region. These new counties have culvert sites with large bat roosts. The sites were identified as positive during annual survey work conducted with the USGS National Wildlife Health Center. The Carroll County site tested negative for Pd in 2019, so the introduction of the fungus is new this year.

DNR surveyed 108 culverts last winter, 30 of which had at least one bat using the site. The most significant site surveyed had 128 tri-colored bats (*Perimyotis subflavus*), two big brown bats (*Eptesicus fuscus*), two gray bats (*Myotis grisescens*) and two Indiana bats (*Myotis sodalis*). This marked the first time DNR has documented an Indiana bat using culverts, and the first time agency staff have observed this species in the state since 2016. DNR is collaborating with Kennesaw State University on a project to survey culverts and swab bats using them for Pd. The species most typically encountered during these surveys are southeastern bats (*Myotis austroriparius*) and tri-colored bats. DNR hopes to use the data from this ongoing survey effort to identify which species are most commonly using these transportation structures, at what time of year, what structural components they prefer, and if Pd is spreading through these structures.

Southeastern Myotis in a south Georgia culvert.

Photo by Emily Ferrall.



Georgia



White-nose Syndrome Winter Monitoring and Surveillance in Caves

In 2020, total bat numbers at cave sites were down 93 percent from their highest previous counts. This percentage has held steady the past two years. This season marked the start of biennial surveys at sites. DNR conducted surveys at eight north Georgia and three south Georgia caves. In future survey seasons, monitored sites where neither WNS nor Pd has been detected will be checked each year, while most sites that have tested positive for the disease or the fungus will be surveyed every other year. Overall, it appears that bat numbers are stabilizing despite some variance from site to site. Some of the variation in cave counts this year can likely be explained by unusual weather patterns and extreme flooding events. DNR plans to use long-term data to monitor the health of bats in the state and their ability to persist.

Tri-colored bats have always been the most abundant bat in north Georgia caves, though low numbers of myotis bats were often observed before the arrival of WNS. This year was the first year since 2016 that a myotis bat other than a gray bat was observed during the surveys. Gray bats seem to be resistant to WNS and DNR researchers observe them returning to certain north Georgia winter sites every year. This year an Indiana bat also was seen at a survey site, the first observed using a Georgia cave since 2016. More information about WNS in Georgia, including an interactive story map can be found on our website here:

<http://georgiawildlife.com/WNS>.



GA DNR technicians swab bats in a south Georgia cave. Photo by Trina Morris



GA DNR Says Goodbye to Laci Pattavina



The DNR bat trio, Laci Pattavina, Emily Ferrall and Trina Morris. Photo by GA DNR.

After four years with GA DNR's Wildlife Conservation Section, Laci Pattavina is moving on. Laci worked as a Wildlife Biologist and completed environmental reviews across the state, working tirelessly to identify project impacts and assist with mitigation efforts to protect species and habitats across the state. Her work on transportation projects led her to develop the Georgia Bats in Bridges training program that has become a model for many other states across the country. Laci also worked on GA DNR's long-term bat monitoring projects, helped to establish ongoing spotted skunk camera trapping projects, and was an active member of the prescribed fire and DNR's Search and Rescue teams. It's hard to imagine bat work without the trio pictured above but the good news is Laci isn't really going anywhere. She started a new position with the U.S. Fish and Wildlife Service and will continue to work with bats in Georgia. Thanks for all you've done and will continue to do for Georgia's Natural Resources, Laci!

GA Bat Working Group (<http://www.gabats.org/>)

Bat Blitz 2020 postponed to 2021

Due to the ongoing COVID19 pandemic, the Georgia Bat Working Group 2020 Bat Blitz was postponed. The GBWG will have a blitz on the Georgia coast at Crooked River State Park October 14-17, 2021! Visit the GA Bat Working Group Webpage (<https://www.gabats.org/news-and-events/>) for more information.

Mississippi

Mississippi Bat Working Group

Fourth Annual Culvert Blitz

The fourth annual culvert blitz was held January 3 – 5, 2020. Surveyed 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-eight volunteers ran 18 routes and checked 208 culverts. Of the inspected culverts, 106 had bats present. A total of 1,939 bats were found representing five species, with the tri-colored bat accounting for approximately 69% of the observations (1,343 individuals). Other species detected (in order of abundance) include southeastern bats (226), Brazilian free-tailed bat (100), big brown bat (44), and Rafinesque's big-eared bat (2). Two hundred twenty-four bats were not identified. Dates for the 2021 blitz are January 8 – 10. Due to the ongoing coronavirus pandemic, additional precautions will be in place to limit potential risks to bats. Contact the Mississippi Bat Working Group (msbats@hotmail.com) for more information.



Annual Meeting

The Mississippi Bat Working Group held its 18th annual meeting at the Mississippi Museum of Natural Science in Jackson on February 6, 2020. Thirty-two people attended, representing a diversity of state and federal agencies from Mississippi and Louisiana. Participants included staff from the museum, U.S. Fish and Wildlife Service, U.S. Forest Service, MS Band of Choctaw Indians, Bureau of Land Management, MS Department of Transportation, U.S. Army Corps of Engineers, USDA Wildlife Services, University of Southern Mississippi, and the Louisiana Department of Wildlife and Fisheries. Several bat enthusiasts joined us to hear updates from Mississippi and Louisiana's efforts to monitor bat populations and white-nose syndrome. The BLM and USFS presented on their bat monitoring efforts in Mississippi and neighboring states, and a student from USM shared her research into the history of bat folklore and mythology.

Volunteers conducting culvert checks.
Photo by B. Latham

Elections were held for all positions, and we are happy to welcome our new vice chair and board members and thank them for their service.

Chair – Becky Rosamond

Vice Chair – Alison McCartney

Secretary/ Treasurer – Amber Floyd

Board: Katelin Cross, Nicole Hodges, Shea Staten

Mississippi

Mississippi Bat Working Group

The Outreach/Education Award was presented to Deb Davis (MMNS), Katelin Cross (MMNS), and Becky Rosamond (USFWS) for their development of a mist-netting simulation to teach the public about bat research through a hands-on activity. This program has been a hit at several public outreach events.



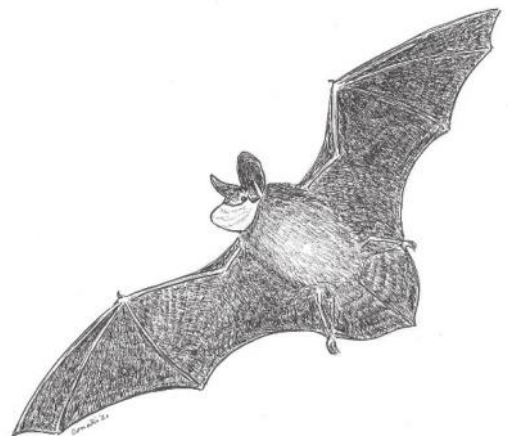
Attendees at the Mississippi Bat Working Group's annual meeting

Mist Net Event Goes Virtual

In response to concerns regarding COVID-19 and our native bat species, the Mississippi Bat Working Group held a virtual event October 24 – 31, corresponding with International Bat Week. Members of the group prepared videos on a variety of topics, including basic bat biology, adaptations, diseases, and highlighting several of our native species. Videos were posted to our web and Facebook pages throughout the week. The event was well-received and videos were viewed by over 400 individuals. We appreciate everyone who participated and shared our videos with others. Members preparing videos include: Katelin Cross, Deb Davis, Amber Floyd, Kris Godwin, Nicole Hodges, Chester Martin, Alison McCartney, Kelly Morris, and Becky Rosamond. Videos are still available for viewing on our website: <http://msbats.org/2020-virtual-mist-net-event/>.

Outreach and Education

Several members of the group presented educational programs and invited talks to groups throughout the state. However, outreach was greatly curtailed as a result of COVID-19 restrictions. Members involved in education and outreach include: Katelin Cross, Deb Davis, and Becky Rosamond



Artwork by Chester O. Martin

Mississippi

WNS Surveillance – Updates from the Mississippi Department of Wildlife, Fisheries, and Parks

White-nose syndrome (WNS) surveillance continued this year thanks to funding provided by the U.S. Fish and Wildlife Service. From December to March, MDWFP biologist, Katelin Cross, led surveys in caves, culverts, and a mine to test for *Pseudogymnoascus destructans* (*Pd*). Swabs were sent to National Wildlife Health Center and Northern Arizona University's Foster Lab. Two new locations tested positive this year bringing the total number of *Pd* positive counties in Mississippi to six. To date, there has not been a bat with WNS in the state.

Other Items of Note

Kathy Shelton was posthumously awarded the Mississippi Wildlife Federation's 2019 Conservationist of the Year Award.

The MBWG completed the Mississippi Bat Conservation Strategy which outlines the state of knowledge of bats in Mississippi and identifies research needs. The plan is available for download from the group's website: <https://msbats.org/wp-content/uploads/MSBatConservationStrategy20200810.pdf>

Fifteen bat drawings from MBWG founder Chester Martin will be featured in the forthcoming book titled "A Field Guide to the Mammals of Trans-Pecos, Texas" by F. W. Yancy, II, R. W. Manning, S. Kasper, and D. J. Schmidly, scheduled for publication by the Texas A&M Press in 2021.

The number of records for silver-haired bats in Mississippi tripled in 2020. Previously, this species was known from a single specimen collected in October 1986 in a residential area in Hinds County. In March 2020 a female was found dead in Harrison County. In October 2020, a live silver-haired bat was found on the campus of Mississippi State.



Silver-haired bat found on the campus of Mississippi State in October 2020.



[Mostly] Good News from Winter Bat Surveys in North Carolina

Katherine Etchison, Mary Frazer, and Olivia Munzer

Winter surveys kicked 2020 off to a promising start in North Carolina. North Carolina Wildlife Resources Commission biologists noted an encouraging change during long-term hibernacula surveys with an increase in counts of tricolored bats at six hibernacula in the Mountains. Some increases were minimal (2-6 bats), while others were more substantial (23-51 bats). Before white-nose syndrome (WNS) arrived in NC in 2011, tricolored bats were the most numerous hibernating species in the state with over 3,500 in a single hibernaculum; however, counts dropped to just 9 tricolored bats at this site by 2015. This hibernaculum is among those that showed increases in 2020 and is now up to 45 tricolored bats. While these counts are but a fraction of their pre-WNS counterparts, this is still a hopeful sign.

In addition to surveying long-term hibernacula, several new sites were also surveyed. An interesting observation came from one of these sites with the documentation of 12 tricolored bats hibernating in three neighboring root cellars. Swabs taken from these bats returned the first positive results for *Pseudogymnoascus destructans* (*Pd*) in Caldwell County, a county with only one other known hibernaculum. Bat surveys have not historically occurred in root cellars in NC, but this year's findings have prompted plans to request information from the public on root cellar access.

Other non-traditional winter roosts were surveyed during the North Carolina Bat Working Group's first Culvert Blitz. This effort targeted the Piedmont and Coastal Plain regions because knowledge of winter roosts in these areas is limited. The blitz resulted in 174 culvert surveys in 30 counties by 27 participants. A total of 65 bats were observed in 14 culverts in 4 Piedmont counties and 5 Coastal Plain counties. Bat counts ranged from 1 to 17 and species observed were tricolored (44), southeastern (18), big brown (2), and Rafinesque's big-eared bats (1). *Pd*-positive swabs were returned from Guilford County culverts, resulting in the sixth Piedmont county with *Pd* presence. A *Pd*-inconclusive result (weak *Pd*-positive) was found in a Coastal Plain culvert in Duplin County, prompting future effort to determine if this result was an anomaly or an early detection sign. The blitz served as a productive pilot effort and showed that bats are using culverts as winter roosts and that these surveys are a valuable *Pd* surveillance method, especially in Piedmont and Coastal Plain counties where caves are scarce.



Figure 1. A tricolored bat hibernating in a culvert. Photo credit: Katherine Etchison

North Carolina



Figure 2. David Allen inspects a tricolored bat in a culvert weep hole. Photo credit: Katherine Etchison.



Figure 3. The entrance to a root cellar used by tricolored bats. Photo credit: Katherine Etchison.

North Carolina



Figure 4. The entrance to a root cellar used by tricolored bats. Photo credit: Katherine Etchison.

Tennessee

Catherine Haase
Austin Peay State University

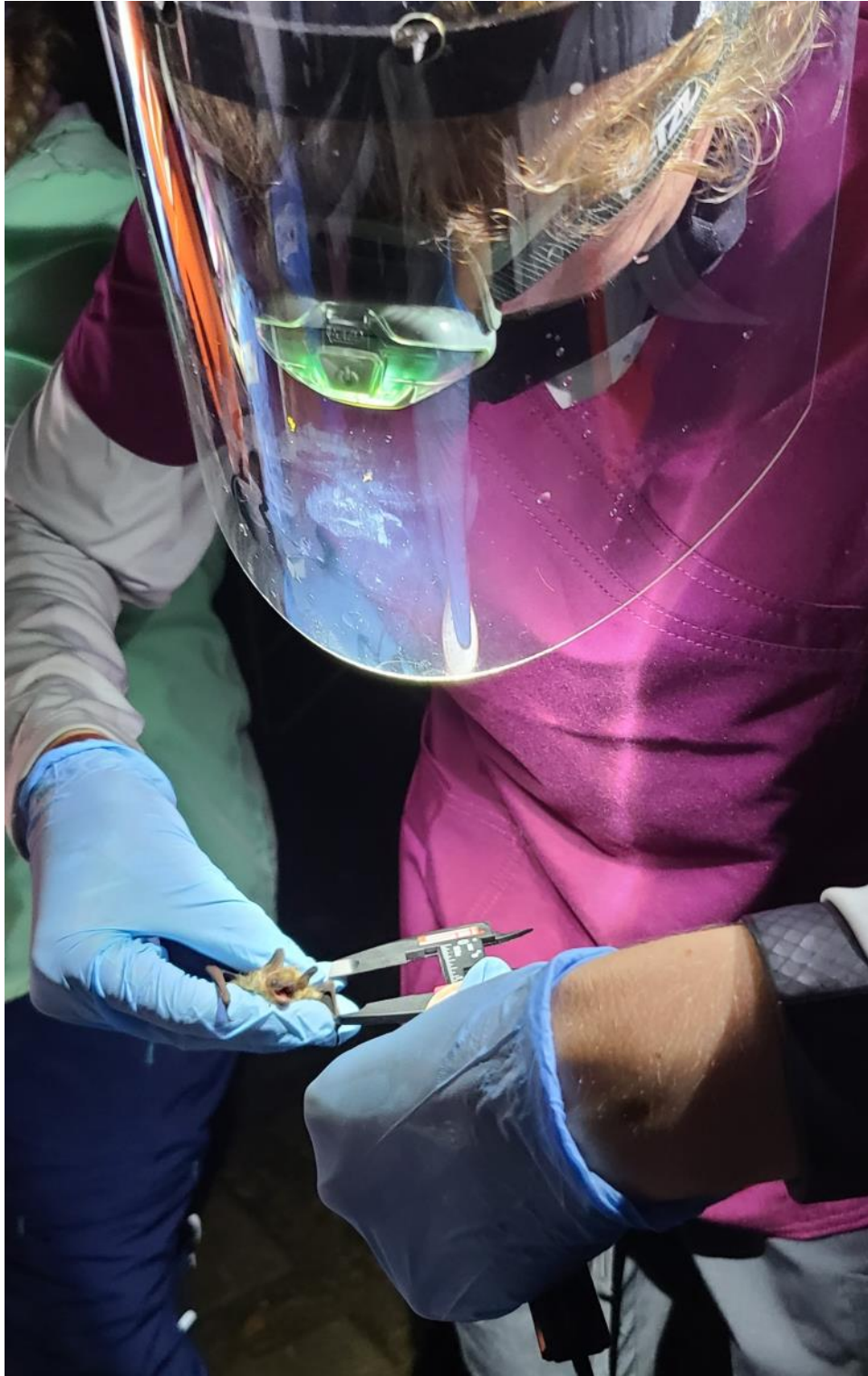
Masters in the Making

Dr. Haase has three graduate students, Sarah Krueger, Sarah Zirkle, and Trevor Walker, at Austin Peay State University in Clarksville, TN that just started their MS projects studying the overall impacts of WNS on the bat community on Fort Campbell Army Base installation in Kentucky. They spent the second half of the summer netting, tracking tri-colored bats, assessing habitat use of tracked bats, and sampling emergent forage insect biomass. They caught over 120 bats, tracked 6 of them, and measured habitat characteristics of over 70 potential roost trees.



The graduate students Sarah Krueger, Sarah Zirkle, Trevor Walker with three grey bats

Tennessee



Sarah Kruger measuring forearm of tri-colored bat.

Photo Credit Catherine G. Haase (APSU).

Tennessee



Sarah Zirkle with a tri-colored bat - the first bat captured in the project.

Photo Credit Catherine G. Haase (APSU).

Tennessee



Trevor Walker tracking our tagged bat .

Photo Credit Catherine G. Haase (APSU).

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	HOST
30 th	25 th	2020	Athens, GA	Georgia Department of Natural Resources
29 th	24 th	2019	Jacksonville, FL	Florida Fish & Wildlife Commission
28 th	23 rd	2018	Roanoke, VA	Joint Bat Working Group Meeting
27 th	22 nd	2017	Asheville, NC	Tim Carter, Mary Kay Clark, Katherine Caldwell
26 th	21 st	2016	Guntersville, AL	Tennessee Valley Authority
25 th	20 th	2015	St. Louis, MO	Joint Bat Working Group Meeting
24 th	19 th	2014	Nacogdoches, TX	Chris Comer
23 rd	18 th	2013	Fall Creek Falls, TN	Brian Carver
22 nd	17 th	2012	Louisville, MS	Darren Miller
21 st	16 th	2011	Louisville, KY	Tim Carter & Brooke Hines
20 th	15 th	2010	Asheville, NC	Mary Kay Clark
19 th	14 th	2009	Jonesboro, AR	Tom Risch & Blake Sasse
18 th	13 th	2008	Blacksburg, VA	Michael St. Germain
17 th	12 th	2007	Destin, FL	Jeff Gore
16 th	11 th	2006	Chattanooga, TN	Tim Carter & Troy Best
15 th	10 th	2005	Paris Landing, TN	John Nelson
14 th	9 th	2004	Helen, GA	Steven Castleberry
13 th	8 th	2003	Mississippi State, MS	Darren Miller
12 th	7 th	2002	Clemson, SC	Susan Loeb
11 th	6 th	2001	Memphis, TN	Michael Kennedy
10 th	5 th	2000	Guntersville, AL	Troy Best
9 th	4 th	1999	Wytheville, VA	Rick Reynolds
8 th	3 rd	1998	Hot Springs, AR	David Saugey
7 th	2 nd	1997	Black Mountain, NC	Mary Kay Clark
6 th	1 st	1996	Somerset, KY	Mike Lacki
5 th		1995	Cookeville, TN	Michael Harvey
4 th		1994	Athens, GA	Joshua Laerm
3 rd		1993	Mountain View, AR	Gary Heidt & Rick McDaniel
2 nd		1992	Guntersville, AL	Troy Best
1 st		1991	Memphis, TN	Mike Kennedy

Upcoming Events



**26th Annual Meeting of the
Southeastern Bat Diversity Network
and the
31st Annual Colloquium on the Conservation of
Mammals in the Southeastern U.S**

Thursday, February 25th, 2021

10 am – 6 pm EST

**2021 ANNUAL MEETING OF THE
NORTHEAST BAT WORKING GROUP (NEBWG)**

Manchester, NH

January 12-14, 2021.

The plans are to have a virtual meeting.

Please check the website for updates as they develop.



**MAKE PLANS NOW FOR THE
2022 ANNUAL MEETING OF THE MIDWEST BAT WORKING GROUP**

RUNGE NATURE CENTER, JEFFERSON CITY, MO

DATE: TBD, 2022

ALTHOUGH LOCATION AND DATES ARE STILL IN THE PLANNING STAGES

MWBWG HOPES TO PICK UP WHERE THEY LEFT OFF IN 2020

102nd ANNUAL MEETING OF THE AMERICAN SOCIETY OF MAMMALOGISTS.

July 14—20, 2023

Anchorage, Alaska

Due to the ongoing COVID-19 pandemic, the American Society of Mammalogists and the International Federation of Mammalogists have decided to postpone the jointly organized IMC-13 until July, 2023.

Please check the ASM website for updates as we get closer to the new meeting date.



28TH ANNUAL CONFERENCE OF THE WILDLIFE SOCIETY

As of 1 December 2020, this will be a virtual conference

Check The Wildlife Society website for dates and details.



Mississippi Bat Working Group

September 2021

Combination annual meeting and mist net event.
Tishomingo County, MS

NASBR

North American Society for Bat Research

Annual Meeting of the North American Symposium on Bat Research

Dates: TBD

Winnipeg, Manitoba Canada

Local Hosts:

Craig Willis, University of Winnipeg

Venue: TBD

Editors Closing Comments



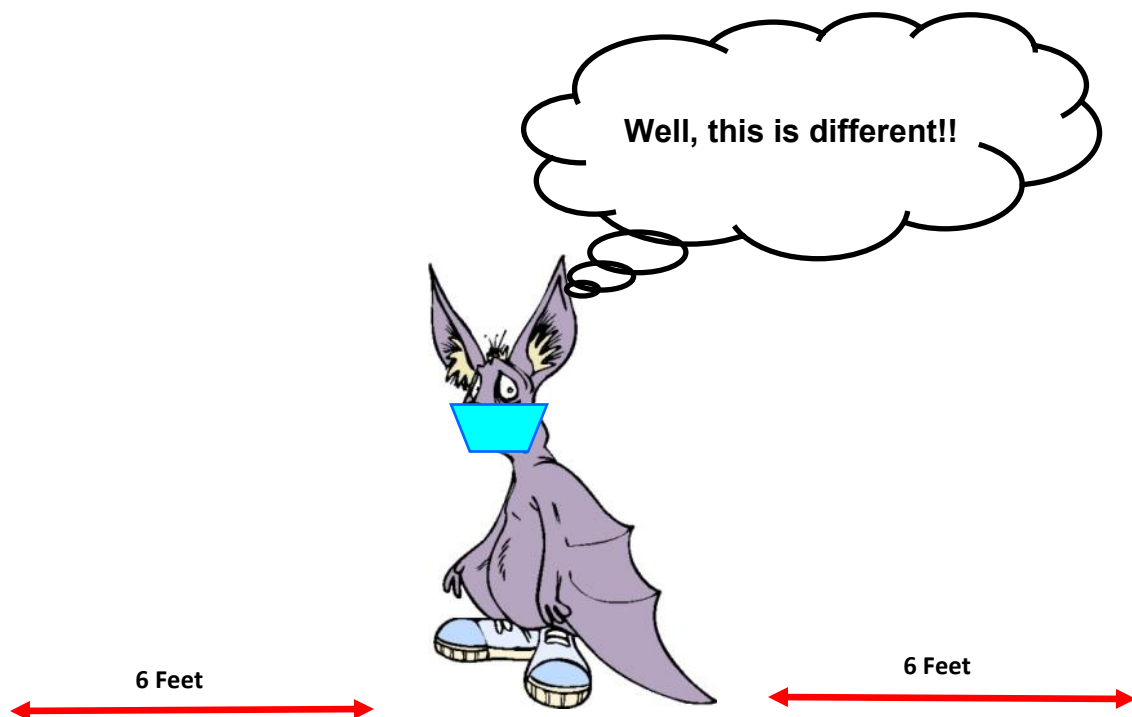
WOW! What a year!! Right!!!

I hope that you are all safe and taking care of yourselves and those around you.



As expected you all came through and we have another great newsletter.

Thank You! Thank You! Thank You!



We are all in this together, so be mindful of those around you,
keep your distance, and
“Yes, Wear those masks!”

As always, it is my wish that you all have
a very Merry Christmas
and that 2021 is the shiny new year
that we all hope and need it to be.

