Volume 105, Number 2

Fall/Winter 2015

PRESIDENT'S ADDRESS Brian Carver

Letter from President

It seems that the world of conservation and management is constantly providing rewards, challenges, new discoveries, and unexpected surprises. In October and again in early December our state wildlife agency confirmed the first verifiable sightings of wild mountain lions in Tennessee since they were extirpated from the state in 1930. Black bear populations in Tennessee are growing and the species continues to expand its range in the state. Successful management of game populations (especially white-tailed deer and wild turkey) and better land management practices have made the return of these large predators possible (although it is too early to determine if mountain lions have established breeding populations here). Conservation success stories should be a source of pride for all of us who work with natural resources.

At the same time, challenges remain. White-nose syndrome continues its westward march. News from mid-November revealed that the causative fungus was documented in a mine in eastern Nebraska in early 2015. Many states are preparing to begin winter bat surveys and biologists are genuinely concerned about what those surveys will reveal. Yet contrary to what many of us may have believed, hibernating bats do mount an (incomplete) immune response to white-nose syndrome, as described in October in PLOS Pathogens by scientists from Bucknell University, providing hope that we may be able to formulate ways to enhance this immune response. Research focused on possible mechanisms for treating the disease continue.

One recent surprise to many of us was the paper published in September in the Journal of Mammalogy (http://jmammal.oxfordjournals.org/content/96/6/1255.full) that suggested (based on molecular evidence) that the genus *Lasiurus*, which contains the red, yellow, and hoary bats, be split into 3 genera. This research revealed that there may yet be important discoveries to be made even for species that are relatively well-known.

Most of us work with bats because we are passionate about nature and conservation. Stay passionate, share your passion, and keep up the good work!

Happy Holidays!

Brian

In This Issue

President's Address	1
Executive Committee Meeting	3
Contact Info – Executive Committee	24
Contact Info – Committees	25
Bat Blitz	6
State Working Group Reports	8
Awards and Recognition	19
Bats and Pools Survey	21
Items of Interest	22
Upcoming Meetings	26
Editors Closing Comments	28

Executive Committee Meeting

Southeastern Bat Diversity Network
Executive Committee
Minutes of the Annual Board Meeting
November 4, 2015

Via conference call

Attendees

Executive Committee Brian Carver, President Tim Carter, Treasurer Piper Roby, Secretary

Luke Dodd, Member at Large Joy O'Keefe, Past President

Trina Morris, President Elect - absent

Action Items

AII: Carver will contact the chair of the Awards Committee, Steven Burnett, to edit the awards criteria to say students can only win an award one time.

AI2: O'Keefe will write up blurb about Susan Loeb's Lifetime Achievement Award for Website Chair, Steve Samoray, to put on the website.

AI3: Samoray make sure that www.rafbat.org does not automatically renew next year so it will not be supported by SBDN anymore.

<u>AI4:</u> Ideally, a website committee would keep SBDN current on social media by identifying objectives of what to add to the website/Facebook page every week, e.g., add a photo of a bat that lives in the southeast each week, then add a fun fact about bats, etc. The EC could contribute to this.

AIS: Samoray provide access to the website to the Treasurer for keeping up with payments and the Secretary for communication.

A16: Carver provide Samoray with meeting and bat blitz host packages to put on the website.

AI7: Carter call the Awards Committee Chair, Steven Burnett, to make sure it's ok to change the wording of the awards to reflect a student bat talk award (out of SBDN funds) and a student non-bat talk award (out of Colloquium funds).

<u>AI8:</u> Carver will find out how much food we have to order to get free meeting space for the 2016 meeting to see if it's worth it or if we should get cheaper food and pay for meeting space.

AI9: Carver compose a list of topics for the 2016 meeting host, Holly LeGrand, for guidance about what the plenary should be about.

AI10: Carver will talk to Morris about getting ideas for the location of the 2017 SBDN meeting.

AII1: Carter will work with Sybill Amelon to finalize the budget from the 2015 North American Joint Bat Working Group meeting.

AI12: Carver will talk to Samoray about changing the website and setting up an ad-hoc website committee.

<u>AI13:</u> Carver will write a summary of recent North American Bat Conservation Alliance (NABCA) actions for the next edition of the Nightwing Newsletter.

Call to Order: 2:04PM CST, President Carver

General Discussion

February 2015 Executive Committee meeting action items:

- Roby received lists of past award winners from various people, compiled them in one place, and sent them to the Executive Committee. All: Carver will contact the chair of the Awards Committee, Steven Burnett, to edit the awards criteria to say students can only win an award one time.
- Roby sent the list of past awards winners to Samoray to be placed on the website.
- Not complete. <u>AI2:</u> O'Keefe will write up blurb about Susan Loeb's Lifetime Achievement Award for Website Chair, Steve Samoray, to put on the website.
- Done. O'Keefe talked to Tom Risch who prefers to keep auditing on paper rather than electronically. Blake Sasse helps when he can but Tom could possibly involve a PhD student to help him.

- Done. The CORA/MYAU Conservation Strategy is on the website.
- Done. <u>AI3:</u> Samoray make sure that www.rafbat.org does not automatically renew next year so it will not be supported by SBDN anymore.
- Nothing has been updated on the website lately so nothing has been linked to Facebook. A14: Ideally, a website committee would keep SBDN current on social media by identifying objectives of what to add to the website/Facebook page every week, e.g., add a photo of a bat that lives in the southeast each week, then add a fun fact about bats, etc. The EC could contribute to this.
- Samoray has a list of domain names but hasn't sent it to Carver. Runningducks does an auto backup of our website and
 Samoray has it backed up. The whole Executive Committee does not need access to the website. <u>AI5:</u> Samoray provide
 access to the website to the Treasurer for keeping up with payments and the Secretary for communication.
- Dodd has a list of people to contact about non-bat talks for the 2016 meeting, but hasn't contacted anyone. He didn't want to contact people that had possibly already been contact by the meeting host, Holly LeGrand. Nikki Castleberry is going to send an email to see if anyone is interested in having their students give non-bat talks. Roby gave Dodd state and federal contacts for some southern states to get names of people working on endangered mammals in the south. Need to get 6 8 talks together and Dodd has about 10 leads so he will check with Nikki and Holly to make sure everyone is on the same page.
- Used to have a package on the website for meeting and blitz hosts. <u>AI6:</u> Carver provide Samoray with meeting and bat blitz host packages to put on the website.
- Discussion about bat and non-bat awards being separate. Agree that the best bat talk will come out of SBDN funds and the best non-bat talk will come out of the colloquium funds (previously the Best Overall talk). AIT: Carter call the Awards Committee Chair, Steven Burnett, to make sure it's ok to change the wording of the awards to reflect a student bat talk award (out of SBDN funds) and a student non-bat talk award (out of Colloquium funds).

New Business:

2016 SBDN Meeting

- Budget how to reduce? Ordering a set amount of food gets us meeting space for free. AI8: Carver will find out how much food we have to order to get free meeting space for the 2016 meeting to see if it's worth it or if we should get cheaper food and pay for meeting space. Carter suggested to have the abstracts online so that we won't have the print cost. The program for the meeting can just be the list of talks, map of the rooms, etc. Carver can print the programs at TN Tech. Final charges for registration = \$75/professional, \$50/student. Charge \$15 for t-shirts.
- Plenary topics need to relate to bats. The Colloquium is where non-bat topics are presented. The President gives topics that are important to SBDN to the meeting hosts for guidance for who to invite to the plenary session. Carter reminded us that people need a good reason to come so they can get approval for travel budgets. For example, regulatory topics are valid for most, such as why should we survey for tri-colored bats, how do you survey for northern long-eared bats, etc. In the past, some meeting hosts have designated an ad hoc committee to decide on the plenary program. A19: Carver compose a list of topics for the 2016 meeting host, Holly LeGrand, for guidance about what the plenary should be about.
- Mike Kennedy is going to give a 10-15 minute talk as a tribute to Dr. Michael "Mick" Harvey. Others will likely share stories.

2017 SBDN Meeting Location

Would like to announce the location for the 2017 meeting at the 2016 February meeting. Anyone with ideas will let Carver know. Carter suggested going through the list of the last several meetings and see who hasn't hosted one in a while. O'Keefe reminded us that it is the President Elect's job to select meeting locations. AII0: Carver will talk to Morris about getting ideas for the location of the 2017 SBDN meeting.

Archiving Dr. Michael "Mick" Harvey's items

The archiving of Dr. Harvey's items is on hold. His widow needs to find time to deal with archiving and moving his things from his home. Carver is working with the SBDN Historian, David Saugey, on this issue.

2015 Joint Bat Meeting Wrap-Up

St Louis meeting wrap-up is finished, however the budget has not been finalized with the meeting host, Sybill Amelon. <u>AI11:</u> Carter will work with Sybill Amelon to finalize the budget from the 2015 North American Joint Bat Working Group meeting.

Website Overhaul

The switch from the old website to the new one was hurried. It functions but needs improvement. Need a new/different logo. Al12: Carver talk to Samoray about changing the website and setting up an ad-hoc website committee. Carver asked EC members to send comments/suggestions about changes to the website.

Other

The president of SBDN is the liaison for the North American Bat Conservation Alliance (NABCA); he will report to the Executive Committee when things happen. <u>AI13:</u> Carver will write a summary of recent North American Bat Conservation Alliance (NABCA) actions for the next edition of the Nightwing Newsletter.

Meeting adjourned at 3:11PM CST.

Contact Information for Executive Committee

EXECUTIVE COMMITTEE

President:

Brian Carver
Assistant Professor of Biology
Tennessee Technological University
Cookeville, TN 38505
(931) 372-3127
bcarver@tntech.edu

President Elect:

Trina Morris
Wildlife Biologist
Georgia Department of Natural Resources
Nongame Conservation Section
2065 U.S. Hwy. 278 S.E.
Social Circle, GA 30025-4743
Office: 706-557-3220

Cell: 678-836-5769 Fax: 706-557-3580 katrina.morris@dnr.ga.gov

Past President:

Joy O'Keefe Assistant Professor Department of Biology Indiana State University 600 Chestnut Street Terre Haute, IN 47809 (812)2373-4520 joyokeefe@gmail.com

Treasurer:

Timothy Carter Associate Professor Department of Biology Ball State University Muncie, IN 47306-0440 Office: 765.285.8842 tccarter@bsu.edu

Secretary:

Piper Roby
Wildlife Biologist
Copperhead Environmental Consulting, Inc.
PO Box 73
Paint Lick, KY 40461
(859) 925-9012
plroby@copperheadconsulting.com

Board Member at Large:

Luke Dodd Assistant Professor Department of Biological Sciences Eastern Kentucky University Office: Memorial #183

Phone: 859-622-2523 Email: <u>luke.dodd@eku.edu</u>

Contact Information for Committees

BAT BLITZ COMMITTEE

Member	Affiliation	E-Mail
Michael Whitby (Chair)	University of Nebraska-Lincoln	michael.whitby@gmail.com
Leanne Burns	Clemson University	lkburns@clemson.edu
Tim Carter	Ball State University	tccarter@bsu.edu
Nikki Castleberry	University of Georgia	neotoma@uga.edu
Dennis Krusac	US Forest Service	dkrusac@fs.fed.us
Bree McMurray	MO DOT	mobatgirl1@yahoo.com
Katrina Morris	Georgia DNR	Katrina.morris@dnr.state.ga.us
Joy O'Keefe	Indiana State University	joyokeefe@gmail.com
Gary Libby	Skybax Ecological Services, LLC	garylibby@windstream.net
Jason Robinson	Biological Systems Consultants, Inc	jason@biologicalsystemsconsultants.com

AWARDS COMMITTEE

Member	Affiliation	E-Mail
Steven Burnett (Chair)	Clayton College & State University	StephenBurnett@mail.clayton.edu
Nikki Castleberry	Georgia Museum of Natural History	neotoma@uga.edu
Chris Comer	Stephen F. Austin State University	comerce@sfasu.edu
Lisa Gatens	NC Museum of Natural Sciences	lisa.gatens@naturalsciences.org

MEMBERSHIP COMMITTEE

Member	Affiliation	E-Mail
Chris Comer (co-chair)	Stephen F. Austin State University	comerce@sfasu.edu
Scott Bergeson (co-chair)	Indiana State University	sbergeson@gmail.com
Steve Thomas	Mammoth Cave National Park	steve thomas@nps.gov
Blake Sasse	Arkansas Game and Fish Commission	dbsasse@agfc.state.ar.us

WHITE-NOSE SYNDROME COMMITTEE

Member	Affiliation	E-Mail
Luke Dodd (Chair)	University of Kentucky	luke.dodd@eku.edu
Katie Gillies	Bat Conservation International	kgillies@batcon.org
Katherine Caldwell	NC Wildlife Resources Commission	katherine.caldwell@ncwildlife.org
Tom Risch	Arkansas State University	trisch@astate.edu
Piper Roby	Copperhead Consulting	plroby@copperheadconsulting.com
Emma Willcox	University of Tennessee	ewillcox@utk.edu

BYLAWS COMMITTEE

Member	Affiliation	E-Mail
Nikki Castleberry (Chair)	Georgia Museum of Natural History	neotoma@uga.edu
Tim Carter	Ball State University	tccarter@bsu.edu
Brian Carver	Tennessee Technological University	bcarver@tntech.edu

WEBSITE COMMITTEE

Member	Affiliation	E-Mail
Steve Samoray (Chair)	Copperhead Consulting	ssamoray@copperheadconsulting.com
Kristina Hammond	WEST, Inc.	khammond68@yahoo.com
Sara Samoray	BDY Environmental	sara.samoray@gmail.com

BAT BLITZ

The 2015 bat blitz was held in the low country of North Carolina from July 26- 30. The event began with an excellent southern seafood buffet before the 96 participants surveyed 45 sites. We captured 296 bats across 7 species, including a few Northern yellow bats (*Lasiurus intermedius*). A great thanks to the local committee, especially the Palmetto Bluff conservancy for sponsoring and Mary Socci for organizing the event. Jason Robinson won the David Saugey most bats captured awards after he recaptured a banded big brown from Tim Carter who got skunked on the third night and lost by 1. Mark Yates won the highest diversity award and Gary Libby got the MVP award. Jackie Beck and Trina Morris earned the Best Dressed award for participating in the costume

competition every night. Brian Dustin and Blake Ellet won the corn hole tournament and took home the golden bags. T-shirts for the event are being made; look for the order form soon! The 2016 Bat blitz will be July 24th-28th at the Talladega National Forest in Northeast Alabama.

The data from the 2015 bat blitz is currently being aggregated and will be summarized in a poster for the SBDN annual conference in February. There were 52 events registered for this year's blitz across 24 states. This is up slightly from last year's efforts (40 events and 22 states). We hope to do a better job advertising and preparing for next year's effort and increase participation across the country.

We are revising guidelines for running the bat blitz. If you have any comments or suggestions, please send them to Michael.whitby@gmail.com. We would particularly like feedback from general participants, especially first timers.



Northern Yellow Bat (photo by Jeff Jackson)

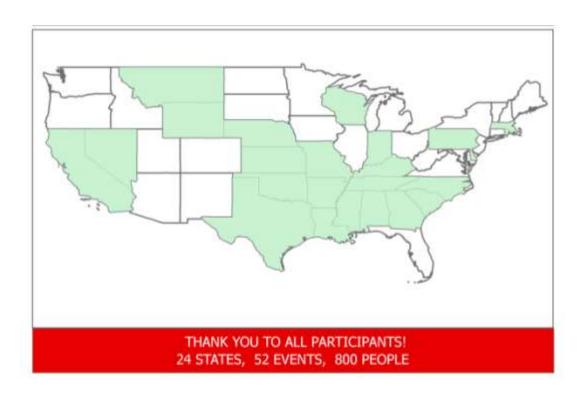


Spanish moss hammock at Net site (photo by Jeff Jackson)



Sunday night social with seafood buffet (photo by Justin Hardy)

August 27th – September 3rd



Additional Committee Reports

MEMBERSHIP COMMITTEE

The membership committee is working on identifying barriers to SBDN Meeting and Mammal Colloquium attendance by southeastern United States mammalogists/bat biologists. We also want to identify the characteristics of membership that current/past members find appealing. With this information, we hope to start increasing SBDN membership and annual meeting attendance.

We are currently collaborating with annual meeting hosts (and others) to promote attendance to the annual mammal colloquium by non-bat mammalogists, as attendance by this demographic has been lacking.

If you have ideas on how to promote membership/attendance or want to help out with the membership committee, don't hesitate to contact us (smbergeson@gmail.com).

Hopefully we can start cajoling more great people into joining our SBDN family!

WHITE-NOSE SYNDROME COMMITTEE

The WNS committee is looking for new membership. If interested, please email the committee chair (<u>luke.dodd@eku.edu</u>), or contact committee members at the upcoming SBDN meeting (February 18-19, Lake Guntersville State Park, AL).

STATE WORKING GROUP REPORTS

Talladega National Forest

Jonathan Stober

Since Indiana bats were discovered migrating from caves in Tennessee to the Shoal Creek Ranger District on the Talladega National Forest in 2011, a collaboration between the USFS,



University of West Georgia, and Bucknell University has developed to further our understanding of the bat community and northern long-eared bats and Indiana bats in particular. The Shoal Creek Ranger District has been managing for the recovery of montane longleaf pine community and its endemic wildlife which includes the red-cockaded woodpecker. Due to this management goal, effort has focused on restoration of the community through timber and intensive fire management. The fire management gradient across the Shoal Creek ranges from frequent fire ~2-4 year fire return interval (historic interval) to moderate fire management 5-8 year fire return interval to infrequent-no fire management. We monitored these areas using ultra sonic detectors, vegetation plots and sampled the insect community. Results are still preliminary but bat abundance and diversity of calls appears to be greatest in the areas with intermediate frequency closely followed by the areas with frequency fire regime. The insect community also appears to be more abundant in the areas under fire management. Areas without any fire management and the lowest number of calls had the least species diversity. We plan on furthering this work in the 2016 field season by collecting calls, vegetation and insect data as well as capture and radio telemetry work to further our understanding of bat community habitat use in relation to fire management and identify roost trees for Indiana and Northern-long-eared bats. This work is a collaboration of Andrew Edelman, University of West Georgia, Joe Johnson Bucknell University and Jonathan Stober USFS.

Place on your calendars the SBDN- 2016 Bat Blitz will be July 24-28, 2016 on the Shoal Creek Ranger District of the Talladega National Forest located near Anniston, AL. We look forward to seeing you all in July 2016.

Arkansas State University

Blake Sassee

The Arkansas State University bat crew has been active again this year, with Sam Schratz conducting Rafinesque's big-eared bat and



southeastern bat roosting ecology studies on the Cache River National Wildlife Refuge and Patrick Moore concluding the second year of a gray bat aerial radiotelemetry study in northwestern Arkansas. Blake Sasse at the Arkansas Game and Fish Commission has been continuing his work studying small-footed bat use of bridges in the Ozarks, partnering this summer with Oklahoma State University to examine their diet. Ron Redman continued monitoring gray bat summer population trends, a project he originally started with as the assistant to Dr. Mick Harvey, who recently passed away.

Article Published

Thomas Risch

Our article, Glycerophospholipid Profiles of Bats with White-Nose Syndrome was published in *Physiological and Biochemical Zoology*, May 2015. The work was done by Evan Pannkuk and me from Arkansas State University in collaboration with our colleagues at the University of Winnipeg.

Please submit your updates for the next newsletter in Spring 2016.



Georgia Department of Natural Resources Updates

Anabat Routes

Anabat Routes were completed again this season by volunteers across the state (georgiawildlife.com/AnabatProject). All the calls have been run through the call identification software program, Echoclass. Currently, Jackie Beck is working on reviewing and compiling results as well as quality control checks from the software results. This year's results should prove to be especially worthwhile because we are now able to create detailed maps from our call files.

2014 Anabat route results can be found at the following link: http://georgiawildlife.com/sites/default/files/uploads/wildlife/nongame/text/html/maps/bat ids from anabat routes 2014.html



Jackie Beck happily performing an aquatic Anabat route with National Park Service staff on the Chattahoochee River. Photo by Trina Morris.

Summer 2015 Interns and Grad Students

UGA PhD student Jack Grider recently concluded the first summer of field work on his joint project between UGA and GA DNR with the help of UGA technicians Pallavi Sirajuddin, Garret Roper, Sarah Sherburne, and Kelly Lutsch, and GA DNR research coordinator Jackie Beck and technician Rebekah (Ratty) Tuck. The crew sampled at 44 sites on public lands across north Georgia. The objectives are to determine the distribution and habitat use of declining cavedwelling bat species and build landscape scale models to predict habitat across north Georgia. Myotis septentrionalis were fitted with a radio transmitter and tracked to diurnal roosts in subsequent days. Mist netting effort resulted in the capture of 234 individuals consisting of seven species including: Eptesicus fuscus, Lasiurus borealis, L. seminolus, M. leibii, M. septentrionalis, Nycticeius humeralis, and Perimyotis subflavus. M. septentrionalis.

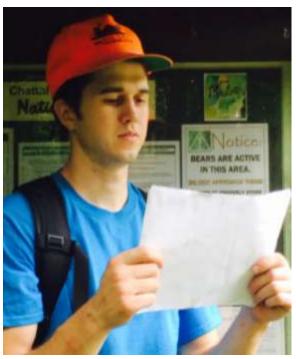
The calls have been analyzed using the program EchoClass to identify species of interest. Of the 42 sites sampled, 23 sites contained a *Myotis* echolocation pulse sequence. Jack is in the process of building preliminary habitat models from these results. Additional field seasons are planned for 2016-2017 and will increase the data available to build and refine spatially explicit habitat models for bats in northern Georgia.



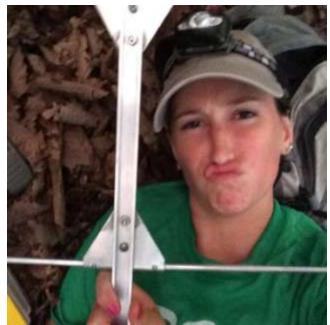
Pallavi Sirajuddin flexing her telemetry skills. Photo by Ratty Tuck.



Garret Roper working up an eastern red bat. Photo by Trina Morris.



Jack Grider reads a map of the land before tracking. Photo by Ratty Tuck.



Ratty Tuck, living the life while waiting to do an emergence count. Photo by Ratty Tuck.

National Park Service Project

During the summer, every GA DNR and UGA bat technician spent three to four weeks at the Ocmulgee National Monument in search of Rafinesque's Big-eared bats. Anabat units were set up throughout the park, and interns ran Anabat routes through the park. Occasional netting nights were set up throughout the summer at Ocmulgee.

Grant Blankenship accompanied GA DNR research coordinator Jackie Beck, GA DNR technician Rebekah Tuck, and UGA technician Sarah Sherburne while netting on night this summer in Ocmulgee National Monument. Mr. Blankenship created an NPR show called "You Might Miss Bats One Day" based on his experience netting and his conversations with Jackie Beck. He also published an article in the Macon, GA newspaper about bats and their numbers declining in Georgia. An electronic copy of the article and the NPR link can be found at:

 $\frac{http://www.gpb.org/news/2015/07/06/keeping-eye-on-bats-their-numbers-drop.}{}$

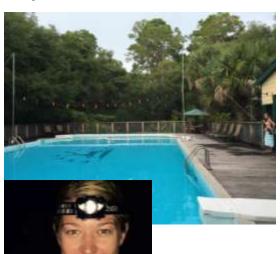


Previous Photo: Sarah Sherburne checking Bald Cypress trees for Rafinesque's Big-eared bats at Ocmulgee WMA. Photo by Trina Morris. Below: Garret Roper poses as an Ocmulgee Siren at Ocmulgee National Monument. Photo by Ratty Tuck.



Little St. Simon's Island

We have continued long-term monitoring over the pool at Little St. Simon's Island in 2015. Trina Morris, Jackie Beck and Eric Winters from the US Forest Service netted the most productive site on the island, the guest pool! Trina gave a presentation early in the evening about Bat Conservation in Georgia and the participants were able to watch the netting at night. After all the guests retired for the evening, the crew caught a Northern yellow bat, a lifer for Eric. This site is a long-term monitoring site on the coast and continues to provide an opportunity for research and education on the Georgia Coast.



Above: Net set up over pool with Jackie Beck getting ready for bats. Left: Jackie Beck posing with a Northern Yellow bat. Photos by Trina Morris.

Web-based Volunteer Project

Roost Monitoring

Volunteers have been recruited from around the state to help monitor summer bat roosts. Volunteers who know of bat roosts in their home, personal bat boxes, bridges, mines, barns, or other structures, or in nearby trees or caves are asked count bats as they emerge and to fill out a counting form. More information on this citizen science project can be found here: http://www.georgiawildlife.com/Bat-Roost-Monitoring. We greatly appreciate all the work our volunteers do to help support bat conservation in Georgia!

Bats in Bridges

Biologists continue to survey bridges for roosting bats, focusing on those that are scheduled for repairs. Bats with bridges are being monitored to determine seasonal usage. US Fish and Wildlife Service and DNR are working with DOT to develop plans for bat exclusion and mitigation where bats are present year-round. Volunteers are asked to fill out bridge survey forms. To submit a bridge survey please visit this link: https://n3mgq.enketo.kobotoolbox.org/webform

Below: Carrie Straight with USFWS counts big brown bats in a bridge crevice. Photo by Trina Morris.

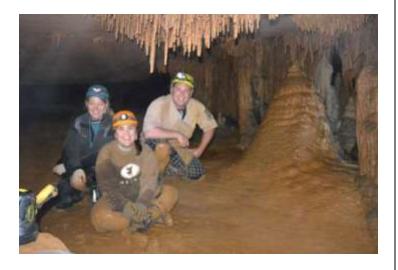


White-Nose Syndrome Winter Monitoring and Surveillance

Biologists in Georgia are unable to visit most of the caves in Georgia with small bat populations. We continue to ask for caver volunteers from around the state to help with White Nose Syndrome Winter Monitoring and Surveillance. Volunteers who are visiting caves are asked to submit a survey form regarding the data collected from the caves even if bats

are not present. If bats are present and volunteer as a swab kit, volunteers are asked to collect samples for *Pseudogymnoascus destructans*, the fungus that causes WNS. Volunteers are already visiting caves and collecting swab samples. More information on this project can be found here: http://www.georgiawildlife.org/node/2403/. We greatly appreciate all the work our volunteers do to help support bat conservation in Georgia!

Biologists continue to survey the hibernacula these imperiled bat species inhabit and have noted drastic declines in most sites. This year, total bat numbers are down 82% from previous winter counts. Georgia secured a WNS Grant to continue work in the state for winter 2016, and will continue visiting cave sites this winter.



From left to right: Jackie Beck, Trina Morris, and Pete Pattavina staying positive and chipper while performing a cave survey in Anderson Springs Cave. Photos by Trina Morris.



Trina Morris and Jackie Beck ready to go with their bat blasters. Photos by Trina Morris.

TAG Fall Cave-In

We continue to prioritize education efforts related to WNS in GA. We attended the Fall TAG Cave-In again this October. GA DNR and the GA Museum of Natural History had a booth at the event and passed out information about WNS and decontamination protocols. We also had crafts for kids related to bats and bat conservation. The booth always attracts attention and is an important way for us to spread the most current knowledge about bats and WNS in the southeast.



Nikki Castleberry and Trina Morris show off their bats proudly.



Nikki Castleberry and a very enthusiastic TAG participant.



Kids Craft Area where children made their own bat to take home. Photos by Trina Morris.

Georgia Bat Working Group Bat Blitz 2015

The 2nd annual Georgia Bat Working Bat Blitz, held May 14-17 at FDR State Park, was a great success! Many participants helped to sample 19 different sites over three nights. We caught 68 bats from six species: little brown, Seminole, eastern red, big brown, tri-colored, and evening bat. Thanks to everyone who made this blitz a success.



Jack Grider accepting an award at the 2015 Bat Blitz



A net set up at the 2015 Bat Blitz in FDR State Park.

Kentucky Bat Working Group Update Brooke Hines

The KBWG held its 9th annual meeting at Natural Bridge State Park this past November. It was decided at the meeting to vote in a Board and to



nominate a President and Secretary. The Board reflects the interests of the group and is comprised of the following representatives: Student, Federal Agency, State Agency, Caver, Consultant, and Researcher and will have two year terms. A Past President was also nominated.

A Primary goal or Objective of the group was identified as bringing researchers, agency representatives, consultants, and others together for information dissemination. Bat blitzes and website development were identified as two ways to accomplish this, in addition to the annual meeting. The Mission Statement has yet to be determined.

Nominations were taken for President and Secretary. However, the Board will be sending out an email to the KBWG taking additional nominations.

Fort Knox

Ashleigh Cable

Copperhead Environmental Consulting, Inc.

Copperhead Environmental Consulting, Inc. has monitored the Indiana Bat colony at Fort Knox since 2005. This year our project was conducted from 12 – 26 June and 20 – 29 July. In June on the east side of Fort Knox, we radio-tagged 8 *Myotis sodalis*, 4 *Myotis lucifugus*, and 1 *Perimyotis subflavus*. Although we were prepared to track *M. septentrionalis*, we did not catch any. This was the first time at Ft. Knox that we tracked *P. subflavus* and we collected roost tree data every day. *M. sodalis* continue to roost by the hundreds in the BrandenBarkTM artificial roost structures developed and installed by Copperhead. We found that reproductive female

M. sodalis and *M. lucifugus* were sometimes using the same artificial roost at the same time. The largest emergence count from a single roost was 169 bats and the largest count for one night was 402 bats emerging from 4 roosts.

In July, our project focused on the west side of Fort Knox. We radio-tagged 1 *M. sodalis* and 1 *P. subflavus* that were captured on the landscape, as well as 7 *M. sodalis* that were captured by mist netting around a BrandenBarkTM roost tree. No *M. septentrionalis* were captured on this side, either. Among the larger emergence counts were 291 individuals exiting from a natural roost and 339 from a BrandenBarkTM roost—both roosts counted in the same evening. We collected foraging data on *M. sodalis* and *P. subflavus* using aerial telemetry. Using the plane, we found that the juvenile male *M. sodalis* was foraging on the other side of the river in Indiana, and in fact roosted there too. This is the first time we have tracked a bat across the Ohio River from Ft. Knox.



A Copperhead Crew set up mist nets to catch Indiana Bats on the landscape at Fort Knox.



Indiana Bat captured on the landscape at Fort Knox.



A BrandenBark $^{\text{TM}}$ artificial roost tree at sunset before emergence.

Ballard Wildlife Management Area Acoustic Lure Steve Samoray, Copperhead Environmental Consulting, Inc.

During Copperhead's testing of an acoustic lure at the Ballard WMA in Western Kentucky, we captured an impressive variety of species including *Myotis sodalis*, *M. septentrionalis*, *M. austroriparius*, *M. lucifugus*, *Lasiurus borealis*, *Nycticeius humeralis*, *Perimyotis subflavus*, and *Corynorhinus rafinesquii*.



Corynorhinus rafinesquii captured at Ballard WMA.

Please submit your updates for the next newsletter in Spring 2016.

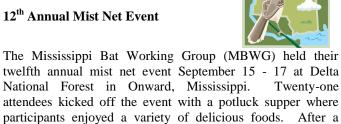


Mississippi Bat Working Group **Update**

Becky Rosamond

night of netting.

12th Annual Mist Net Event



On Wednesday, participants met for a short business meeting to discuss upcoming projects then adjourned to lunch at the Onward Restaurant to enjoy some local fare. Wednesday evening the group again divided into four groups for a second night of netting.

safety briefing, the group divided into four teams for the first

In all, the group caught a total of 54 bats representing 6 species. The distinction of most bats caught was held by the team led by Alison McCartney, who accounted for 40 of the 59 bats captured. Species captured included Nycticeius humeralis (39), Lasiurus borealis (4), Myotis austroriparius (4), Eptescius fuscus (3) and Perimyotis subflavus (1). The group followed the national protocol for handling bats to avoid spreading white-nose syndrome, wearing nitrile gloves, cleaning equipment between uses, and boiling nets between uses. No equipment was used that had previously been used in a white-nose positive state. Additionally, the wings of captured bats were examined for damage, using the "Wing-Damage Index" developed by Jonathan Reichard. significant damage was observed.

The group would like to thank the following individuals: sponsor Chester Martin; Kathy Shelton and Alison McCartney who helped with site selection; Amber Floyd for handling onsite registration; Rick Lance, Alison McCartney, and Kathy Shelton who served as group leaders; Fred Miller, Jackie Henne-Kerr, and Kelly Perry who provided lodging; and Delta National Forest. Thank you to everyone who attended – we wouldn't have these events without you!



MBWG mist net event attendees – featuring Nonie Maines as the bat.

Thank you Chili's!!

The Chili's restaurants in Oxford and Batesville hosted the Mississippi Bat Working Group in a "Give Back" Event in October. Working Group members Amber Floyd and Shea Staten staffed booths at each location and patrons of the restaurants were invited to request that 10% of what they paid be given to the Group. Money raised through this event will be used for habitat restoration. Thank you to the Oxford and Batesville, MS Chili's restaurants and everyone who participated!





Outreach and Education

- Shea Staten continued his work with the bat house program, including working with the City of Greenwood to promote bat conservation, and with an Eagle Scout to construct bat boxes.
- Kathy Shelton staffed a booth at "Park After Dark" at the Mississippi Museum of Natural Science.
- Deb Waz presented programs on bats to several summer camps, at libraries and in schools, reaching approximately 550 people.
- Shea Staten conducted several outreach activities the largest being Oxford & Lafayette Summer Camp with 100 kids and Arkabutla Lake Eagle Fest with approximately 600 contacts on the day.
- Becky Rosamond staffed a booth for the MBWG at the Choctaw Wildlife Festival on the Choctaw Reservation near Philadelphia and at the Wildlife Outdoor Learning Festival (WOLF) at Noxubee National Wildlife Refuge.
- Becky and Shea conducted a mist netting event for scounts near Hernando.

Upcoming Annual Meeting

The next meeting of the Mississippi Bat Working Group will be held February 2, 2016 from 9 a.m. – 4 p.m. at the Mississippi Museum of Natural Science. Please contact the group at msbats@hotmail.com for more information or check us out on Facebook.

Mark Twain National Forest Megan York-Harris

This year bat surveys were conducted on the Mark Twain National Forest, Poplar Bluff Ranger District, from June 1-12 and July 21-23. No information was collected



regarding the documented Indiana bat maternity site, but work was conducted to learn more about the movements and use of roost trees by Northern long-eared bats on the Forest. Numbers of captures were notably lower this year than in previous years.

Three lactating females were transmittered on June 12. Only one bat was located during tracking efforts. This female roosted alone in a live, 14 inch scarlet oak the first night. She was in a small, dead limb on the tree. The following night she roosted with 12 other bats in a 14 inch dead shortleaf pine. These bats were under a loose flap of bark on the northwest side of the tree, and the tree was situated along a two-lane paved road. Heavy rains and strong winds were common during this timeframe, and the flap of bark was blown off the tree. All bats moved to another maternity tree. This tree was also a dead, 14 inch shortleaf pine tree approximately 200 yards from the first primary tree. By June 20 all activity from the tree ceased, and the transmitter was dead. See pictures below of primary trees.

Primary Tree #1



Primary Tree #2



Interesting points from this year's work include 1) all trees were less than a mile from the capture site, situated in high basal area timber stands, and the primary trees had between 80-95% bark remaining; 2) there are several suitable maternity trees picked out on the landscape that can be used in a pinch; 3) it appears pups can easily be carried from one tree to another, at least for relatively short distances; and 4) all documented trees were within timber sale improvement units that were cut in the spring of 2015 (all trees less than nine inches in diameter were cut and left).

Work will continue next season to determine if any Northern long-eared bats remain on the landscape in light of white-nose syndrome and to gather additional information regarding their movements and use of various trees across the District.

Fort Bragg Janice Patten

We have continued to use multiple survey techniques to collect information about the bats found on



Fort Bragg. We use Sonabat to record echolocation calls along 4 transects. Some transects were being monitored in 2004-2007 and they have been monitored each year since 2010. This work is conducted April-Sept. In Aug, we set out stationary Anabat detectors at 27 locations. These detectors were each set out for 1 night. This data has been collected since 2009. In June, a mist net survey was conducted over the

course of 8 nights. As part of Eric Britzke and Carl Herzog's large scale acoustic survey, we drove a 30 mile transect on 2 nights to collect mobile Anabat data. We also coordinated to set up a driving transect and stationary points on Fort Bragg as part of the NABat Survey that was started this summer. Recently we set up two Anabat detectors to collect data over the winter months. This will be the 1st attempt to collect data on Fort Bragg's winter bat activity.

NCBWG Update

Lisa Gatens

In conjunction with the SBDN multi-state bat blitz in early September, members of the NC Bat Working Group netted a colony of bats as it emerged from a bridge in central NC. This bridge has been monitored for ten years, with emergence counts being conducted primarily during summers and occupancy noted during other seasons. For this endeavor specially made PVC framed nets and a harp trap were suspended over the side of the bridge at the expansion joints. The PVC framed nets were ~ five feet in diameter, with repurposed mist nets tied securely around the perimeter. The harp trap worked especially well in this setting, snagging the majority of the bats. Thirty-seven big brown bats, Eptesicus fuscus, (20 female/17 male) and six Mexican free-tailed bats, Tadarida brasiliensis, (4 female/2 male) were captured in a half hour. All bats were banded except for one big brown who had been previously banded at the same site five years prior. Nearly 20 volunteers attended, many enjoying their first upclose view of a bat.



One of each of the species captured during the emergence.



Captures awaiting processing.



Banding a free-tailed bat.



There was a flurry of activity. Reflective safety vests were a necessity in this setting.

Northern Long-eared Bat Research Project in Eastern NCDottie Brown

Ecological Solutions, Inc. in Roswell, Georgia

For 2015/2016 Ecological Solutions is surveying and tracking northern long-eared bats (NLEB) in eastern North Carolina. The North Carolina Department of Transportation and USFWS are focusing research on an eastern NC coastal plain NLEB population that was originally documented by Matina Kalcounis-Rueppell, PhD and her students from the University of North Carolina at Greensboro. Recently, Ecological Solutions captured several NLEB and is now tracking them. So far, tracked NLEB have remained on the coast and are active during November. If this population is overwintering in eastern NC and not migrating to caves for the winter, it is hopeful that they may escape the negative effects of Whitenose Syndrome.



Northern long-eared bat captured on Thanksgiving 11-26-15.

Please submit your updates for the next newsletter in Spring 2016.



SC DNR

SC DNR hopes to post an opening for a Temporary Grant Biologist II (one-year position) to work on bat surveys. It will include winter bat counts and summer mist net surveys,



while also requiring some outreach work with Nuisance Wildlife Control professionals and cavers. Keep a look out for the post!

Photo Summary Christopher Fill

Photos from working as a technician along with Sam Freeze for Clemson University/US Forest Service with Susan Loeb, Eric Winters and Leanne Burns.



Eastern small-footed resting after attaching transmitter and ID tag.



Eastern small-footed tracked to its hideout.



Eric Winters (left) and Sam Freeze (right) by small-footed's hideout.



Eastern small-footed bat in harp trap.



Leanne Burns taking small-footed hair samples while Patrick Cunningham holds.

Arnold Air Force Base
Steve Samoray, Copperhead
Environmental Consulting, Inc.

A total of 311 bats were captured during the survey period at AAFB during a summer survey: 269 during standard mist-netting surveys and 42 during a onenight, large-scale netting effort at the Bethpage Bridge near Estill Springs, TN. Bat captures included 96 evening bats (Nycticeius humeralis), 94 red bats (Lasiurus borealis), 59 gray bats (Myotis grisescens), 29 little brown bats (Myotis lucifugus), 28 big brown bats (Eptesicus fuscus), and 4 tricolored bats (Perimyotis subflavus). Of the 4 tri-colored bats captured, three were fitted with radio transmitters, tracked to diurnal roosts, and followed during foraging bouts. Of the 29 little brown bats captured, 15 were fitted with radio transmitters, tracked to diurnal roosts, and followed during foraging bouts. A total of 9 roost trees were found for the 3 radio-tagged tri-colored bats, and a total of 3 diurnal roosts were found for 13 of the 15 radio-tagged little brown bats. One of the roosts was an abandoned house, one was the bridge at which they were caught, and one was a bat box in a citizen's yard!

Foraging data were collected for 7 nights and showed that the tri-colored bats traveled relatively quickly from roost trees to open water and were most often found feeding over or near the edge of these large water bodies. Similarly, the majority of foraging points collected from radio-tagged little brown bats were also over open water or along the shorelines. Individual tri-colored bats returned to their own distinct foraging areas each night while some little brown bats showed movement between foraging areas. However, once established in a foraging area for the night, individual little brown bats tended to stay in those areas and very little, if any, overlap was found among the individual foraging areas of this species.

Indiana Bat Spring Migration (Tennessee)

Theresa Wetzel and Ashleigh Cable Copperhead Environmental Consulting, Inc.

This year we once again worked with TWRA on the Indiana Bat Spring Migration project that we have been doing since 2009. We put unique frequency radio-transmitters on 4 female Myotis sodalis and same frequency "coded" tags on 26 female M. sodalis from Hubbard's Cave. Two of the four unique frequency bats from Hubbard's Cave were found at a previously known maternity site in Wilson County, TN. The third unique frequency bat was tracked west from the cave approximately 108 km to Marshall County, TN over 2 nights of migration (April 8th & 9th). On April 15th, we lost the signal completely. Plane and ground searches came up with nothing and we suspect that the transmitter died. We do not think that this is a new maternity site as she was not roosting with any other bats during the entire time we tracked her. The fourth unique frequency bat was never heard after the first night. Ten of the coded frequency bats were located at previously known maternity colonies: 4 in Wilson County, TN and 6 in the Talladega National Forest, Al. These were all new cave connections to these maternity colonies as this was the first time we tracked bats from Hubbard's Cave. However, the maternity colonies were discovered by our previous spring migration work from Rose Cave.

On April 2nd, we went to Rose Cave, TN. We put radiotransmitters on 34 female *M. sodalis* with same frequency "coded" tags and one female *M. sodalis* with a unique frequency transmitter. The unique frequency bat from this cave was found in McNairy County, TN. We located 13 of the coded frequency bats: 5 in Wilson County, TN, 1 in McNairy County, TN, 1 in Holly Springs National Forest, MS, and 6 in the Talladega National Forest, AL. All of these connections were ones we had made in previous years.

Using temperature sensitive transmitters and an ATS box from the plane, we were able to monitor individuals coming in and out of torpor. One bat was able to raise her body temperature by 20°F in a short period of just nine minutes. Although we did not accomplish our main goal to follow a bat the whole way to her maternity grounds, we were still able to collect important data and make new maternity connections from a cave we had not sampled for this project before.



Aerial view of antennae attached to plane while tracking M. sodalis.



ATS receiver showing the inter-pulse period that is used to calculate the bat's temperature.



Night crew ready to track M. sodalis migration.



Myotis sodalis captured on our Indiana Bat Spring Migration project.

Surveys in Cherokee National Forest Vanessa Rojas

Vanessa Rojas, Ph.D. student at Indiana State University in Dr. Joy O'Keefe's Lab, conducted her third field season in the northern portion of the Cherokee National Forest (CNF) in northeast Tennessee during May – Auguest 2015. She and her crew surveyed sites with mist net and acoustics. They also conducted their second year of 9 driving acoustic transects. Big brown and eastern red bats were the most abundant on the landscape and sadly, they only captured one northern longeared bat this past summer. Northern long-eared bat captures and acoustic detections have decreased each year since her research began in 2013.

Please submit your updates for the next newsletter in Spring 2016.



Please submit your updates for the next newsletter in Spring 2016.



Please submit your updates for the next newsletter in Spring 2016.



Submit Your State Updates!

Thank you to everyone that submitted your updates and photos. It's great to see all of the amazing bat work happening in the area. For those regions that didn't contribute this year we look forward to hearing from you for next year's state reports.

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

Send photos and summaries to nightwingnews@gmail.com

AWARDS AND RECOGNITION

We awarded our annual student travel award for travel to the NASBR meeting to Patrick Moore from Arkansas State University for "Home Range and Habitat Use of Foraging Gray Bats (Myotis Grisescens) From Five Maternity Sites in Northern Arkansas". The study looked at the feasibility of using aerial tracking to follow adult female gray bats and determine landscape usage, home range size, and primary food source. We will be issuing the call for applications for student awards for 2016 at the beginning of the year.

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.

North American Bat Conservation Alliance

The North American Bat Conservation Alliance (NABCA) is an informal alliance among various federal and state/provincial agencies, regional bat working groups, non-governmental organizations, and others interested in bat conservation across North America. The NABCA has its roots in discussions among individual bat biologists several years ago, but the impetus behind the formal creation of this group really took hold in 2014. The organization's mission statement is to: "promote the conservation of bats in North America by facilitating cooperation, coordinating priorities, and elevating awareness of bats, for the benefit of bats, people, and their ecosystems." The organization currently has a coordinator (Rob Mies of the Organization for Bat Conservation) and a steering committee of 12 members. The steering committee members include three co-chairs (one each from Canada, the United States, and Mexico), representatives from the various working groups (including SBDN President Brian Carver), and three at-large members.

The NABCA steering committee has been meeting approximately monthly, including at the North American Joint Bat Working Group last March in St. Louis, at NASBR in October in Monterey, CA, and by telephone. The group adopted a formal charter in July of this year and continues to move forward with efforts to prioritize threats to North American bats and to develop information on priorities and potential actions that would benefit bats. The group is also currently forming an electronic survey that will be distributed to relevant parties in 2016 to help prioritize threats.

Currently NABCA has a presence on Facebook as well as a (recently created and still developing) website (http://www.batconservationalliance.org). One other development of note was the signing of a "Letter of Intent" between agencies from all three countries at the Canada/Mexico/US Trilateral Committee for Wildlife and Ecosystem Conservation and Management meeting in April 2015. This agreement allows official coordination among the three countries to help conserve North American bats.

Items of Interest

BAT VS ANT: THE STRUGGLE CONTINUES!



While netting in Wayne County, Ohio, we caught an adult male big brown bat (*Eptesicus fuscus*) with a carpenter ant (*Camponotus nearcticus*) head attached to its lower eyelid.

The ant was removed and photographs were taken.

Personnel from Jackson Group plan on presenting these findings and subsequent research on bat vs ant encounters at the upcoming 21st Annual Meeting of the Southeastern Bat Diversity Network in 2016.



Rafinesque's big-eared bats near London, KY photographed by Price Sewell with assistance from Eric Smith.





In Memoriam

Dr. Mick Harvey, 1934-2015



Dr. Michael (Mick) Joseph Harvey, 80, of Cookeville, TN died June 30, 2015 at Cookeville Regional Medical Center. He was born September 23, 1934 in Chicago, IL to the late Wallie John and Pearl Kathryn Klupa Harvey. Dr. Harvey was Professor Emeritus and former Chairman in the Department of Biology at Tennessee Technological University. He also served at the University of Memphis as Biology faculty. His graduate work was Zoology/Animal Biology, in which he received a Ph.D. degree (University of Kentucky, 1967) and a M.A. degree (Stephen F. Austin State University, 1962). His B.S. degree (Botany/Plant Biology) was received in 1958 from Eastern Illinois University.

Dr. Harvey had many interests in his field, particularly endangered bats. Along with research on bats, he studied reptiles, amphibians, and mammals, as well as various aspects of biospeleology. He authored or coauthored numerous publications, including "Arkansas Bats: A Valuable Resource (1986), "Bats of the Eastern United States" (1992), and "Bats of the United States and Canada" (2011). Prior to university service, he taught and coached at the high school and junior high school levels.

He was a member of St. Thomas Aquinas Catholic Church, the Knights of Columbus, and numerous professional organizations. He is survived by his wife of 54 years, Lora Conley Harvey (whom he married June 2, 1961 in Flora, IL); two sons and daughters-in-law, Doug and Ami Harvey, Rick and Julie Harvey, all of Franklin, TN.



Climbing over a cave fence in 2003.

In 2003, Dr. Michael J. "Mick" Harvey was recognized by the Southeastern Bat Diversity Network for his lifetime commitment to bat research and conservation activities in the Southeastern United States. The award was presented during the 8th annual SBDN and 13th annual Colloquium on the Conservation of Mammals. He received his B.S. in 1958 from Eastern Illinois University. Dr. Harvey attended Stephen F. Austin State University for his M.A. under Dr. Robert Packard. In 1966, he joined the faculty of Memphis State University and was awarded his Ph.D. in 1967 from the University of Kentucky where he worked under Dr. Roger Barbour. Dr. Harvey became Professor of Biology at Memphis State in 1975 and in 1985 moved to Tennessee Tech University as Biology Department Chair. He retired in 2000 and was appointed Professor Emeritus.

I am fortunate enough to have known and worked with Mick for several years; he is one of the people that influenced me to work with bats. I can't express how much his mentorship meant to me.

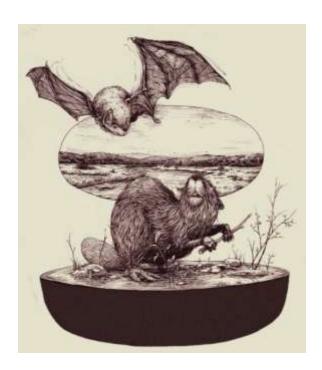
Mick, you will be missed!!!!

UPCOMING MEETINGS



Annual Meeting of the NORTHEAST BAT WORKING GROUP

January 11-13, 2016 Lord Baltimore Hotel in Baltimore, MD



21st Annual Meeting of the Southeastern Bat Diversity Network & 26th Annual Colloquium on the Conservation of Mammals in the Southeastern U.S. February 18-19, 2016

Lake Guntersville State Park, 1155 Lodge Drive, Guntersville, Alabama 35976

96th Annual Meeting of the American Society of Mammalogists

24 - 28 June 2016 University of Minnesota, Minneapolis



23rd Annual Conference of The Wildlife Society

Raleigh, North Carolina 15 - 19 October 2016

46th North American Symposium of Bat Research

Annual meeting 12 - 15 October 2016 San Antonio, Texas



EDITORS CLOSING COMMENTS



YOU DID IT AGAIN!! ANOTHER GREAT NEWSLETTER!!!



Thank You! Thank You! Thank You!

Send all your interesting bits to our newsletter e-mail:

NightwingNewsletter@gmail.com



It is my hope that everyone had a truly Merry Christmas

and

That 2016 shines so bright for you that you need shades!!!



