



Midwest Bat Working Group

6th Annual Meeting

Meeting Notes (Katrina Schultes)

Terre Haute, IN

3 April 2014

**CONGRATULATIONS to our student award winner!! He received \$100 for each award:
Best Student Oral & Poster Presentations: SCOTT BERGESON (ISU)**

Rob Mies, President – Welcome and Introduction to MWBWG

- The website has been re-designed and updated. www.mwbwg.org
 - We would really like to get the list of state contacts together to add to the website.
 - Events and other info can be submitted to Rob or website committee for posting (Scott Johnson & Paul White).
 - Please visit website and submit content!
- Become a Midwest Bat Working Group member! We're facilitating communication between bat groups and advocating bat priorities. Mission statement is on the website.
- Thanks to our host: ISU Center for Bat Research, Outreach, and Conservation, especially Brianne Walters!
- Rob shared OBC's newly launched VampCam – newly launched live vampire bat webcam available from OBC's website – take a look!

Summary of Invited Speakers

2014 Indiana Bat Summer Survey Guidelines (Andy King): Bookmark the Indiana Bat webpage for all updates and new releases:

(<http://www.fws.gov/midwest/Endangered/mammals/inba/index.html>).

USFWS wrote a peer-reviewed paper calculating the level of effort required to have high (90%) confidence in negative survey results. Detection probabilities came from scientific literature and occupancy estimates (data from NY, KY, MO, WV, OH, and IN) to develop Level of Effort. Based on this modelling, they are recommending different requirements for WNS affected and non-affected recovery units: 42 nights of netting vs. 9 per 123 acres. For linear projects, it would be 4 (non-affected) and 5 (affected) net nights per kilometer habitat. They are continuing to accept surveys for northern long-eared bat using Indiana bat guidance this year and will re-evaluate results to determine if NLEB-specific guidance is needed. USFWS and USGS are developing a standardized third party test for software and testing is planned for spring on BCID, Echo Class, Kaleidoscope Pro and Sonobat. Also, Kentucky Field office is doing a study to test using acoustic lures to attract bats to mist nets. Preliminary results are positive. The KY field office is also testing the use of a Wildlife Detection Dog (i.e., guano-sniffing dog). "Otis" can



detect small (3-4 pellet) guano samples. A lab is looking at whether guano VOC's can be used to differentiate between bat species, age, and reproductive status.

NLEB Listing Status (Jill Utrup-USFWS): Reviewed two models regarding WNS spread – both agreed that it would spread throughout the range. Critical habitat – they found designation is prudent but not determinable, so they have one year to gather information to inform a decision. Received 37,360 comments on proposed listing (~400 original/not form letters). All are available online: type in NLE bat on www.regulations.gov (docket ID: FWS-R5-ES-2011-0024).

NLEB Interim Conference and Conservation Planning Guidance (Jessica Hogrefe – USFWS R3): Working on template language for communicating with USFWS regarding conferencing. Also putting together consultation guidance for effects analysis and jeopardy determinations. Beginning to work on a recovery outline, which would be the framework for a recovery plan and consultation guidance (conservation measures, jeopardy/effects analysis guidelines). Visit the website for all updates and documents:
<http://www.fws.gov/Midwest/endangered/mammals/nlba/index.html>.

MYLU/PESU/MYLE Status Update (John Reichard – USFWS, Asst. National WNS coordinator): Little brown bat (LBB) – conducting internal review in coordination with Boston University status review. Developing a demographic model in partnership with USGS and working on status assessment. Considering taxonomy (subspecies), abundance and distribution, and winter behavior and how it relates to WNS. Karl Tinsley is the lead (612-713-5330). Tri-colored bat (TCB) – Put out data call in 2011, still processing. TCB and NLEB tend to be first species affected at new WNS sites. Jon Reichard and Christina Kocer are co-leaders.

WNS: current status of disease and collaborative response (Rich Geboy – USFWS): USFWS is working on National WNS Response Implementation Plan. Starting to see declines in Midwest and Southeast that mirror the declines seen in Northeast. Capture rates are declining. Big-eared bats appear to be faring well. Gray bats are stable-to-increasing across range, but are observing large-scale movement of hibernating populations. Indiana bats – seeing large scale movements and behavioral changes in some populations, 30-50% declines in Midwest states. NLEB status is difficult to assess due to hibernation strategy, but numbers are considerably down in WNS+ sites. Rich is looking for info on capture rates. LBB: 90% declines in IN, IL & OH (mirrors NE declines). Did brief analysis of population change by species. For 19 hibernacula in IL, OH, and IN with 2+ years of WNS. Found average 86% decline (LBB 87%, NLEB 97%, TCB 72%), which is very similar to declines documented in Northeast. Media coverage about “stabilizing” populations is overstated. This has been observed only in LBB in three hibernacula, and could be explained by movement between sites. General population continues to decline.

Bats and Wind Energy (Michael Schirmacher – BCD): Bats and Wind Energy Cooperative is a cooperative between non-governmental organizations and state and federal agencies, established in 2004. www.batsandwind.org. They publish articles, put together science meetings, etc.



Research has shown 21 species affected, 200,000-400,000 bats killed per year by wind energy, estimated 840,000 to 1.7 million bats killed between 2000 and 2011. Mostly tree roosting bats, but NLEB and LBB account for 5-6% of mortalities. They are working on developing a model to predict risk of bat fatality prior to wind development to site them accordingly. Some options for reducing risk: (1) orientation of wind farms (having a narrow profile aligned with bat movement); (2) cut-in speeds (turbines do not spin at low wind speeds; studies found 44-93% fewer bats killed at 3.5 vs. 5-6 mph cut-in speeds, with only 0.3-1% reduction in energy produced); (3) seasonal adjustments - most fatalities occur mid-summer to fall during migration and mating. They are working on incorporating other weather variables, such as temperature into model. Also testing bat acoustic deterrents on turbine blades that do not require operational minimization. In R&D stage, but initial tests showed significant reductions in mortality.

Bats and Forestry Symposium

Myotis bats need forests: an eastern perspective (Joy O'Keefe): Gave overview of bat interactions with forests in North America. There are conflicts between bats and forest management; however, it is generally accepted that it is alright to harvest during winter, but that has ecological effects, such as soil erosion. Discussed how NLEB is very strongly tied to forests (more than Ibat) and its adaptation to cluttered forests (high frequency, low intensity calls; low wing-loading for short-distance, agile flight; small body size; long ears and tragus for gleaning small insects; small feet; and keeled calcar for extra lift in flight). Study found that NLEBs flew along forested corridors and avoided crossing even small openings. O'Keefe found NLEBs forage over roads much more than openings. However, did find that they foraged and roosted in recent cuts (young forest) and old forest, but interim was too cluttered. Roost fidelity is lower in heavily forested areas. She concluded that mixed-age forested landscapes can provide foraging and roosting habitat, and management should focus at landscape scale on providing diversity of age classes and desired forest types, not on protection of individual roosts, especially in high-density forest areas.

Forest management and private woodlands in Indiana (Paul Meyers, Superior Hardwoods): Described contribution of timber industry to economy in IN. Went through the management guidelines for bats provided by USFWS (snags, 60% canopy cover, retain shagbark hickory, species/diameter requirements, stream buffers, seasonal harvest restrictions) and described impacts on management & markets. He emphasized the risks of having too many limitations on private forest management (particularly seasonal restrictions), such as conversion of timber land to agriculture/industry/residential and loss of timber markets.

Bat habitat conservation & management in Indiana State Forests (Scott Haulton, IDNR): Described Habitat Conservation Plan (HCP) that IDNR has been working for 10 years. It will cover Indiana State Forests (156,000 acres) and will result in Incidental Take Statement. They are hoping to have final draft ready by December 2014, and it will cover Indiana bat, gray bat and NLEB for 20 year timeframe. IDNR felt it had to pursue an HCP because choice was either follow USFWS guidance outright (potentially longer seasonal restrictions) or develop HCP and



get an incidental take permit. Seasonal harvest: currently applying standard in all areas within 5 miles of summer records (~28% of land). Where applied, these have seen bids reduced by 10-15%. One state forest found that seasonal restrictions were costing \$62,000 per year in mitigations, follow-up, gravel and lower bids.

Features of HCP (1) retain all snags, (2) retain some large trees for future roosts, (3) retain hickories, (4) riparian buffers, (5) no harvest around hibernacula, (6) seasonal restrictions - no harvest during highest risk of take (narrower window). Next step: statewide HCP for private forest land. KY and PA are both also starting HCPs.

There was an Acoustics Seminar in which David Riggs (Wildlife Acoustics) presented *Bat species identification from zero crossing and full spectrum echolocation calls using HMMs, Fisher Scores, unsupervised clustering and balanced winnow pairwise classifiers: What Bat is That?* He gave a demonstration of the Kaleidoscope software program. Ryan Allen (Bat Call Identification, Inc.) followed up and presented *BCID: Overview to a realistic approach for automated acoustic identification*. He then gave a demonstration of the Bat Call Identification software program.

Lastly, Rob Mies introduced the North American Bat Conservation Alliance (NABCA): a federation of bat working groups. Their mission statement is to be an alliance of regional bat conservation working groups including regional BWGs, agencies, tribes, NGOs, and private industry. NABCA formalizes a network of collaboration for bat conservation. This group does not replace other local/regional groups, rather it is an over-arching umbrella to promote, facilitate, and assist these groups in addressing bat conservation at national- and continent-wide scale. It brings regional groups together; looking for common priorities and gaps in conservation; find overlapping themes and issues of scale (not replicating regional work). Rob Mies (Organization for Bat Conservation / current president of MWBWG) and Mylea Bayless (Bat Conservation International) are leading the organizational efforts. Presidents/leaders of regional bat work groups and bat specialist groups had conference calls this winter to discuss collaboration. We will be hearing more from this group.

Meeting Summary

Day one of the meeting started out with a board meeting and breakfast followed by a welcome by president, Rob Mies. He announced the newly elected board members: VP – Scott Johnson, Secretary – Katrina Schultes, Directors – Kari Kirschbaum, Kevin Murray, Jennifer Norris, Marne Titchenell, and J. Paul White, and Student Board Member – Vanessa Rojas. They join current board members: President – Rob Mies, Treasurer – Brianne Walters, and Directors – Gerda Nordquist and Tim Carter. The day followed with talks and updates covering Indiana bat and northern long-eared bat protocols along with updates on other species, white-nose syndrome, impacts of wind developments, and a bats and forests symposium. The day rounded out with an evening social and poster session. Everyone enjoyed great food and posters (including 8 student posters).



Day two began with breakfast, oral presentations (including 5 student presentations), state reports, and a business meeting. Scott Bergeson (from ISU) took home all the glory by winning both the student poster and the student oral presentations. He received \$100 cash and a certificate for each award.

Thanks went to our host, the Center for Bat Research, Outreach, and Conservation at Indiana State University. Thanks also went to our sponsors and vendors, including AllStar Ecology LLC, Bat Conservation and Management, Cardno JFNew, Civil & Environmental Consultants, EcoTech, GAI Consultants, Organization for Bat Conservation, Titley Scientific, WEST, Wildlife Acoustics, and the Indiana State University Center for Bat Research, Outreach, and Conservation.

Announcements

Annual Meeting

2015 Host: Sybill Amelon - Joint Regional Bat Working Group meeting with southeast and western groups in Missouri.

2016 Host: Ohio Bat Working Group, Columbus, OH

2017 Host: (Wisconsin)

Student Awards

Best Student Oral Presentation: SCOTT BERGESON, Indiana State University, “Don't forget the guys! Male Indiana bat roost selection in a managed forest”.

Best Student Poster Presentation: SCOTT BERGESON, University of Illinois, “Effectiveness of ambient temperature sensitive transmitters in measuring bat roost temperature”.



Midwest Bat Working Group
6th Annual Business Meeting Minutes
Muncie, IN
4 April 2014

Called to order at 11:45 PM by Rob Mies, President.

Board of Directors Update

Rob introduced the Board members and explained how the terms work. Newly elected board members are: VP – Scott Johnson, Secretary – Katrina Schultes, Directors – Kari Kirschbaum, Kevin Murray, Jennifer Norris, Marne Titchenell, and J. Paul White, and our first ever Student Board Member – Vanessa Rojas. They join current board members: President – Rob Mies, Treasurer – Brianne Walters, and Directors – Gerda Nordquist and Tim Carter.

Membership Report

This is the largest meeting yet with 133 registrations (21 students and 112 professionals). The break-down of members is 27% academic, 36% consultants, 28% state/federal agencies, and 8 private organizations.

Treasurer Report

Thanks sponsors!!! We stayed within our budget, in part thanks to sponsors, and were able to add about \$500 to the account balance! The Registration Account has a current balance of \$2482.83. Savings can be used for emergencies, to pay travel for key speakers, etc. Let us know about ideas you have. Our Dues Account has a balance of \$7051.72. Money spent in 2013 was \$129 for website annual fee and domain registration and \$899 for new website creation and design.

Committees

*****We have various committees and would like more member participation!*****

More about committees can be found on our website: <http://www.mwbwg.org/about-us/committees>. We specifically need additional help on the Awards, Website, and Membership committees.

If you would like to be added to the list-serv, send emails to (Brianne.Walters at indstate.edu) or (tccarter at bsu.edu).

Thanks again to our host, and especially Brianne, and thanks to judges who helped with student presentations!!