



## Midwest Bat Working Group

### 4<sup>th</sup> Annual Meeting Notes

Terre Haute, IN

5 April 2012

CONGRATULATIONS to our student award winners!! They each received \$100:

**Best Student Oral Presentation: EVAN PANNKUK**

**Best Student Poster Presentation: LISA POWERS**

#### **Rob Mies – Welcome and Introduction to MWBWG**

- Gave a brief background on self.
- **Thanks to all the sponsors!**
- Background on group: been around for a while but was inactive for years. John Whitaker and ISU Bat Center reinitiated the group 4 years ago.
- Mission statement is posted online. We provide structure, coordinate people working together, and facilitate communication.
- Join the list-serv: contact Tim Carter (tccarter at bsu.edu)
- Most presentations will be videotaped and available for viewing via a weblink on [www.MWBWG.org](http://www.MWBWG.org).

WNS has raised a lot of interest with the public in bats. Here are some public venues occurring this year:

- Year of the Bat.
- 4 bat festivals in Midwest region this year:
  - Missouri Bat Festival 4/21 (Leasburg, MO)
  - Wisconsin Bat Festival 5/12 (Madison, WI)
  - 6<sup>th</sup> Annual Indiana Bat Festival 9/15/12 (Terre Haute, IN)
  - Great Lakes Bat Festival 9/29 (Southfield, MI)
- BatsLIVE A distance learning adventure sponsored by the USFS
  - ([www.BatsLIVE.pwnet.org](http://www.BatsLIVE.pwnet.org))
  - Includes webinars and webcasts for educators.
- U-Haul is highlighting Onondaga Cave State Park in MO with a Red Bat supergraphic on some of their smaller moving trucks. Their supergraphics all have accompanying educational material on-line. There are about 200 trucks so far but expect 2000 or so.

**Rob offered, on behalf of himself and the membership, a big thanks to our local host: Indiana State University's Center for North American Bat Research and Conservation!**

## **Election Results for New Board Members** (6 of 11 positions)

VP: **Dave Redell** (WDNR)

Secretary: **Katrina Schultes** (USFS)

Board Members (2-year terms): **Joe Kath** (ILDNR), **Bree McMurray** (MODOT), **Justin Boyles** (Southern Illinois University), and **Amy Russell** (Grand Valley State University)

Next year, we will be voting on all 3-year term positions, including President and 3 Board Members. (The Treasurer must remain an ISU employee for our non-profit status with them to continue.)

Current Membership: 49 **Please consider becoming a paid member!!**

Looking for committee members from the general membership to help spread out the work (see Business Meeting Notes below).

## **Invited Speakers**

**ANN FROSCHAUER** National WNS Communications Leader, USFWS

*National perspective on current status of knowledge and management of White-Nose Syndrome in bats*

Trying to get a handle on individual bats that are surviving multiple years of infection.

### **Documented Declines in NE:**

- MYLU/little brown bat 91%
- MYSE/northern (long-eared) bat 98%
- PESU/Tri-colored bat 75%
- MYSO/Indiana bat 72%
- MYLE/eastern small-footed bat 12%
- EPFU/big brown bat 41%

**Across the board, about 88% decline in all affected bat species.**

### **Since 2011 meeting, new WNS developments:**

- Finalized National Plan (May 2011)
- WNS Congressional hearing and briefings
- *Geomyces destructans* (Gd) demonstrated as cause of WNS
- WNS infection identified in European bats
- FWS and 20 bat biologists estimate mortality to be at least 5.7-6.7 million bats
- WNS confirmed in AL and MO (Gd or disease now confirmed in 20 states, 4 provinces)

### **Other items of interest:**

- FY2012 grants for \$1.4M for WNS research and \$950,000 in state supported grants.
- Agency-wide Decontamination Protocol due out in April 2012.
- FWS Cave Advisory – looking to BWGs to help update these advisories. Look forward to engaging interested parties in this update.

- ESA Listing Petitions: assessments initiated in 2010 on ESF, NLE, LBB. Decisions expected by end of FY2013
- National WNS Plan established 7 working groups. Interested individuals with technical experience are invited to participate in groups.
- [www.WNS.org](http://www.WNS.org) – will be unveiled soon. This is more of a partner endeavor. If you have content to contribute, contact Ann. Also using social media and outreach products, including brochures, fact sheets, video/photos, presentations, and engaging the media. Battle for Bats translated in Spanish. Flickr images are public domain for media & education. Ann is available to assist partners in disseminating information/announcements, info-sharing through WNS website and social media outlets, and also in finding subject-experts to help you.

Answers to audience questions:

- State RFP went out over email and will be posted to USFWS website soon.
- Species-specific rankings for captive management – working group is hoping to release their report in the next couple of months.

**RICH GEBOY** Midwest WNS Coordinator, USFWS

*Regional WNS Update*

- Facilitate discussion among MWBWG participants in WNS Surveillance & Monitoring, Planning, and Research.
- Michigan, Minnesota, Iowa, and Illinois are considered as-yet **uninfected**.
- Ohio, Indiana, Missouri have **confirmed** WNS.
- Comparison of mid-winter (1/19/12) and mid-March (3/16/12) of bat numbers in mine in southern Ohio on Wayne National Forest showed overall 78.8% decline, but warm winter weather is a confounding factor. Some dead bats were found inside the mine.

State Summaries:

**Michigan:** 63 hibernacula visited in 2012. MDNRE WNS Response Plan done in 2010.

**Wisconsin:** 120 sites visited in 2012. Decon using local professional cleaner. Acoustic work with citizens. WI DNR WNS implementation strategy done in 2011. Listed 4 bat species. Working with tourist caves and mines to reduce risk of spread.

**Minnesota:** 3 sites visited in 2012, 8-12 will be surveyed every other year.

**Iowa:** 1 site monitored on public land.

**Illinois:** 10 hibernacula visited (7 caves and 3 mines)

**Ohio:** 2 sites visited. 2011 confirmed at 1 location. 5 more sites with WNS in 2012.

**Indiana:** 33 sites visited 2011/2012. 23/33 have shown visible signs of WNS. Citizen science acoustic monitoring project launched in 2011.

**Missouri:** 38 hibernacula visited. 1 confirmed site with WNS (LB & Tri). Summer thermal infrared video monitoring at gray bat summer sites. 2012 MDC WNS Response Plan on state land.

Question:

Are we including Canada in our Midwest efforts? Should they be included in our MWBWG?

- FWS is trying to figure out how to better partner with them. Not a lot of communication occurring at Midwest regional level. Rich can find out who contacts are, if needed.

**MICHAEL SHIRMACHER** Bat Conservation International (BCI)

*A review of bats and wind energy issues in the U.S.*

- 2003 began the concern for bats and wind farm fatalities.
- 21 of 45 bat species north of Mexico have experienced wind turbine mortality. 80% migratory tree bats.
- Some species already thought to be experiencing population-level mortality, e.g., red bats.
- As turbines get taller and larger, bat mortality increases. Forested ridge areas have high kills. Fatalities highest in mid-summer to fall (migration). Regional patterns detected.
- Lack of data for many areas/species, esp. Southwest (e.g., nectar-feeding bats in Mexico).
- Highest fatalities during low wind nights and passage of weather fronts.
- Challenge: migratory patterns, population impact, behavior around turbines, barotrauma; Are bats attracted to the site or individual turbine? Solutions: pre-activity and post-fatality data will help determine best siting.
- Some studies have found that raising the cut-in speeds (from the standard 3.5 m/s up to 5.5-6 m/s) reduces bat mortality dramatically. This is called curtailment. (Examples: Cassleman, PA (Arnett et al. 2011) 44-93% fewer bats killed at turbines with cut-in speed raised between 5 & 6.5 m/s. Other studies showed 40-60% lower kills at 4 m/s cut-in speed. Fowler, IN showed 50% reduction at 5 m/s but 80%? reduction at 6.5 m/s. )
- Many projects considering “operational mitigation,” including curtailment. One of Canada’s largest wind energy companies mitigates (curtails in low wind speeds) as standard practice. Ontario has established a fatality rate that, if exceeded, triggers operational mitigation.
- U.S. companies are somewhat less willing to use curtailment as a mitigation, though.
- Next steps: conduct replicate studies, further investigate “partial” feathering, and complete a synthesis of current research.
- Possible development of acoustic deterrents. Currently being tested. More effective with bats echolocating at lower frequencies (e.g., hoary bats). May be more effective in drier climates. Still need R&D, to examine study design options, and to compare cost to curtailment. 8 devices per turbine (over \$7,000). Reduced kills up to 64%.
- Bat detectors placed on turbines. 26% were hoary bats. Kills were mostly hoary, red, and silver-haired.
- Emerging issues: engage in international wind energy partnerships, engage in offshore wind project planning, change attitudes. Data collected over several years at wind sites

continues to show high mortality rates, even after the site has been operating for 3-4 years.

### **ANDY KING** USFWS

*Proposed Revisions to the 2007 Indiana bat summer survey protocols*

6 FWS and 6 State Biologists worked to revise the Indiana Bat Protocol.

Phased Approach: 1. Habitat assessment (if yes, move on) 2. Acoustic survey (if yes, move on) 3. Mist-net survey (if yes, move on). 4. Radio-track and emergence survey.

#### **Why Revise Now?**

- Standardize protocols rangewide/ improve consistency
- Advances in acoustic technology and automated ID
- Increases in large-scale projects (e.g., wind energy)
- WNS-related issues (improve detection; reduce possible transmission from handling; less invasive method)

Peer review: 57 individual/organizations submitted comments. Many thanks for all the thoughtful comments.

Acoustic analysis software from Britzke et al. is federally-funded and will be free for download when available: [www.fws.gov/midwest/Endangered/mammals/inba/index.html](http://www.fws.gov/midwest/Endangered/mammals/inba/index.html)

#### **Moving Forward:**

The team is reviewing comments and incorporating recommended revisions received during the peer review period (ongoing – summer 2012).

- Conduct pilot testing of acoustics.
- Incorporate results from pilot studies in 9/2012.
- Formally request comments via Federal Register.
- Issue final guidance in Jan/Feb 2013.

The current guidance is to **use existing mist-netting guidelines in Appendix 5 of 2007 draft Recovery Plan for summer 2012.**

#### Questions

**When all lit suggests tandem mistnetting and acoustics is better, why are we going for all acoustics?**

- Efficiency issue – greater efficiency using acoustics as a filter of where to mistnet.
- It was a frequently asked question; the guidance may or may not stay the same after team gets back together.

**Moving forward, is there any plan to incorporate a more rounded definition of “suitable habitat,” rather than just specifying size of trees, etc.**

- Nuanced and complex, so will likely require more thought and discussion in team.

**Permit not required for acoustic detector, so anyone can go out and collect acoustic data and use the software program to determine there are no Indiana bats present.**

**Theoretically, a company could determine on its own, without the benefit of a professional biologist, that there are no Indiana bats present and that they do not need to consult with USFWS. With no requirement for credentials/permits for such surveys, how does USFWS deal with that?**

- FWS is open to ideas on how to address this, like developing lists of “qualified” surveyors.

### **M. SCHIRMACHER** BCI

#### *Comparison of acoustic bat detectors*

Many different types and brands of detectors are available. Consider your objective, cost, expertise, etc. Species identification can be unclear. Need peer-reviewed scientific studies. User’s responsibility to understand, remember, and test limitations of each detector system.

### **KEVIN MURRAY** Western EcoSystems Technology, Inc.

#### *Current methodology for the acoustic identification of bat echolocation calls*

#### Practical Limitations of acoustic systems:

- Call Quality – must record high-quality calls to analyze or data analysis will be full of errors.
- Call Library – good one is necessary to get good results. The more species, the more complex.
- Species Composition expected in any given area must be accounted for in any analysis software. Different modules needed for different regions.
- False Positives are a concern.

#### Questions

Could you undermine the use of acoustics by going to western states and recording bats and potentially identifying them as MYSO, where they do not occur.

- One of the keys is to use appropriate call libraries and regional species lists during analysis.

Midwest Bat Working Group  
**4<sup>th</sup> Annual Business Meeting Minutes**  
Terre Haute, IN  
6 April 2012

**Called to order at 1:45 PM by Rob Mies, President.**

**Annual meeting**

What do people think about holding meetings on weekends?

- Not good for agency folks, but potentially better for students.
- **General consensus:** leave as is – a Thursday/Friday meeting.

**Membership**

**Reminder for members:** 10% discount at Organization for Bat Conservation (OBC) and ISU Bat Center.

**Why become a member?** We want to increase our membership; we can use membership funds for awards or projects. What do we need to do to achieve this? Ideas from Board and members:

- You can become more actively engaged as a members:
  - Assist on committees.
  - Need to find more ways to involve members.
- Knowledge that your money is going to a conservation or other worthwhile project or student awards.
  - General agreement.
- Newsletter or other incentive.
  - Board already discussed this and determined we do not want to produce a newsletter at this time.
- Look into discount with BCI, Speleobooks, and others as incentives.
  - Joy O'Keefe will contact Speleobooks.
  - Another member will contact BCI.

**Future Meetings**

**2013 – April 4-5** in Muncie, IN at Ball State University at Alumni Center (free use of center; keeps meeting costs down). Tim Carter is host.

- There will be posters and oral presentations.
- Tim will work on tightening up the schedule to get us out a little earlier on Friday PM.

**2014 April** – Joe Kath in Illinois will host, possibly at a southern IL state park facility. Let Joe know if you have specific ideas for a location, and he will look into suggestions.

**We would like to keep improving the experience members have at annual meetings. Name things that you liked at this meeting or give suggestions for improvements:**

- We are ending awfully late on Friday, resulting in a late night arrival at home for folks that have 5+ hours to drive. A Wednesday afternoon start time with 1<sup>st</sup> part of day to drive to meeting could give us an earlier end time on Friday.
  - This would make it necessary to stay a minimum of 2 nights, even if you live close.
  - Students/faculty would lose an extra day of classes (Wed in addition to Fri).
  - Earlier Friday start time (8 or 9 instead of 10). Tie poster session into social to reduce time on Fri AM or other time-saving measures would solve problem without starting on Wed.
    - **General consensus** to keep MWBWG to a 2-day meeting (Th/F) for now and make appropriate changes to allow for an earlier Friday end time.
  - Could have board meeting on Wed PM, so that it does not take up time from regular meeting (no decision).
- State reports have been taking a bit longer than we'd like, but the information is good.
  - Change the way we present these updates. For instance, we could have state reports as posters or handouts; then could have a round-table discussion during meeting on specific issues, like wind, WNS, etc., that are pertinent to members.
    - **General consensus** to try poster updates in 2013 and consider round-table discussion in time slot.
  - Continue to solicit state summaries to post on website.
- Leave plenty of time for interaction – throughout the meeting, e.g., longer breaks, long lunch.
- Put posters up throughout meeting in the social area to allow more time to read/ discuss.
  - Potentially move the poster session to the 1<sup>st</sup> hour of the Thursday social (no decision).

**Vote on Bylaws**

Rob Mies: Everyone was sent a notice and link to review the proposed bylaws. Discussion was prompted but none was needed.

Tim Carter: motion to accept the bylaws.

Brianne Walters: 2<sup>nd</sup> the motion.

**MOTION PASSED.**

**Committees**

Rob is encouraging members to get involved with committee activities. **Please contact a committee chair to offer your assistance!** Feel free to talk to committee chairs and/or send your ideas to Rob directly (rmies at batconservation.org). Here is the list of committees and current members (chair is listed first):



**Annual Meeting Committee** to assist annual host with organizing, creating a program, and schedule presentations.

- Brianne Walters, Treasurer
- Tim Carter, Board Member
- Al Kurta, Board Member

**Nomination and Election Committee** to announce, collect, and organize nominations and run elections for Board of Directors.

- Dave Redell, Vice President
- Rob Mies, President

**Awards Committee** announce and accept nominations and organize judges.

- Joe Kath, Board Member
- John Whitaker, Board Member

**Bylaw / History Committee** to give an annual report about the bylaws and keep an accurate history of the working group.

- Katrina Schultes, Secretary

**Website Committee** to maintain and improve the website - requires a quarterly report on the state of the website including progress and plans.

- Bree McMurray, Board Member
- Paul White from WI

**Membership Committee** to keep an accurate member list and promote to new membership.

- Justin Boyles, Board Member
- Amy Russell, Board Member
- Brianne Walters, Treasurer

### **Website Improvements**

Quick, informal poll: everyone in the room has been on the website.

How/Why are you using it?

- To find Annual Meeting info/registration.
- To find past meeting minutes, state reports, link to videos of meetings.
- Would a Job board be useful?
  - Would be an on-going list that would have updates added at the top, preferably with an expiration date for reference.
  - Could be a one-stop shop, especially for students.
    - **General consensus** – good idea to start a job board.
- Member's area that is password-protected to provide member contacts and other members-only content (if developed).
  - Could use membership money to hire webmaster, if needed.
  - Board needs to check feasibility/technology required to do this.

- Wind Power page is empty. Are we replicating what everyone else is doing or do we have a role to play?
  - Wind and WNS could just be a links page, since so many other agencies already do this.
  - Could include pertinent contacts.
- Create a Current Research page with contacts.
  - Could link to research webpages.
  - Links by topic.

### **OTHER TOPICS**

**Suggestion:** MWBWG could sponsor workshops (1-2 per year) outside of our annual meeting, covering any topic to provide education to ourselves and the public. Could be offered in conjunction with meeting but before or after.

- Technical workshops for bat biologists.
- Educational workshops for the public.
- Etc...

**Suggestion:** Create a travelling exhibit/poster/booth about MWBWG to put up at other meetings to inform people about our group and to encourage membership.

**Meeting adjourned at 2:30 PM by Rob Mies.**