



# The Echolocator

<http://wiatri.net/inventory/bats>

Volume 2, Issue 1

December 2012

**Bats swarm at the 2012 Maiden Rock Mine NRF Fieldtrip**  
Join a trip next year to experience fall swarm and support the WBPI!

## Dave Redell Receives Silver Eagle Award from USFWS

Wisconsin's bat ecologist, David Redell, recently received U.S. Fish and Wildlife Service's highest honor: the Silver Eagle award, for his life-long work with bats in Wisconsin. Rich Geboy, regional WNS coordinator, and Jeremy Coleman, national WNS coordinator presented the award in person at Dave's home on August 28th. After presenting the award, Redell, along with several of the bat crew accompanied Geboy and Coleman to Neda Mine, where they observed the spectacular fall swarm. As thousands of bats entered and exited the mine, Dave was once again "home".



Left to right: Dave receiving his award, Rich Geboy, Jeremy Coleman

### Inside this issue:

WPB Project Updates	2-3
Unimin Corp Gate	3
Acoustic Monitoring Summary	4
Kohler-Andrae State Park Bat Condo	4
2012 Bat Fest	5
WNS Update	6
Broad IT Changes	6
Volunteer Profile	7
2012 Volunteer Recognition	9
Featured Wisconsin Bat	10
Dave Redell's Obituary	11

## Annual White-nose Syndrome Symposium Held in Madison, WI

Madison WI— June 4th through June 6th brought bat and white-nose syndrome (WNS) experts from around the world to the annual white-nose syndrome symposium held in downtown Madison. On the agenda was everything from investigations into the fungus that causes the disease and methods to prevent its

transmission, to conservation and recovery efforts in areas already affected by WNS. Over 50 state, federal and non-governmental representatives met for four days to discuss advancement of WNS research and management. The symposium included both whole

group presentations and discussions as well as break-out sessions for more specialized collaboration. WDNR co-sponsored and organized the symposium.





## Acoustic Project Update

J. Paul White

Over 600 acoustic bat surveys were completed this year which more than doubled the surveys completed in 2011 (n=199). We had one or more surveys completed in 56 of Wisconsin's 72 counties, which was the highest percentage (78%) since 2010. The two

most active regions were the Fox River Valley (Lawrence University) and the Kickapoo River Valley (Kickapoo Valley Reserve). Not only did these groups survey areas that had never before been surveyed, they repeatedly monitored areas of special interest which helped us describe nightly and site variability among bat species.

As part of a State Wildlife Grant, the Western Great Lakes Bird and Bat Observatory (WGLBBO) in northeastern Ozaukee County received funding to expand the bat monitoring project's presence in eleven counties. Beyond acquiring new detection systems to focus on conservation opportunity areas, representatives from WGLBBO organized over 20



bat educational programs throughout the Lake Michigan coastal area. In addition to equipment purchases and bat education, this grant aided in the completion of all the BATLAS water routes in the Southeast Glacial Plains (36) and Northern Highland (28) ecological regions.

We hope you are enjoying our new map design. Besides revamping the look of our bat maps, GIS guru Anne Reis has made a concerted effort to automate the mapping portion to allow us to spend more time analyzing bat passes and collecting acoustic data ourselves. Due to these new improvements, we hope to maintain our two week commitment from data upload to map-in-hand. There were certainly periods this field season where we fell short of the goal, but with the help of Anne and others we are on-track to ensure quick results. There is no doubt that the effort put forth by volunteers and coordinators alike, has made this project successful and sustainable. The information compiled within a short few years has increased our knowledge of bat habitat use which has benefited both, public and private land managers, while also shaping important conservation actions on a state level. Know that each night spent in the field surveying for bats helps us to better define species abundance and range (see Eastern Pipistrelle map), which would not have been possible otherwise. •

**THANK YOU!**

J. Paul White

For more information regarding acoustic bat monitoring please contact J. Paul White. (Contact info on back.)



## Roost Project Update

Heather Kaarakka

Faithful volunteers and landowners continue to find new bat roosts around the state. A GIANT THANK

YOU to the volunteers and landowners who have continued to keep an eye on their furry residents and submit data over the spring, summer and fall. The 2012 roost monitoring project report was recently finished and is available on our website.

Currently, all known sites are roosts of little brown and big brown bats in bat houses, attics, barns and other buildings, but there remains the potential to investigate roosts from the other five species in the state as well; we just need to find them. Keep your eyes open and pointed up for furry bodies hanging from tree branches and along tree trunks.

New this year were four coordinated "bat blitzes" at large sites such as Yellowstone Lake State Park (32 bat houses) and Devil's Lake State Park (21 bat houses, one condo). We coordinated carpooling of 18 people to

conduct counts at Yellowstone Lake, and 12 people to Devil's Lake. In June volunteers counted 528 little brown bats from Devil's Lake, and 3238 bats from Yellowstone. In August, volunteers counted 762 from Devil's Lake and 3981 from Yellowstone! I'm sorry to say, the bat condo at Devil's Lake did not have bats during either count.

New also this year, is participation from school groups that offer credit for finding and monitoring bat roosts over the summer. There remains a large number of roosts that are not monitored yearly and these projects are a great way to not only get counts, but also involve students and citizens in ecology in their local area. If you would like to start a school project, please contact me.

We discovered several very large roosting sites this year, including a bridge that houses more than 3000 bats during the summer!

If you would like to participate in roost monitoring in any capacity (bat blitzes or other), or you know of bat roosts in your area, please feel free to contact me. (Contact info on back.) •



## Cave and Mine Update

Jennifer (Schehr) Redell

As winter rapidly approaches, most Wisconsin bats have returned to the caves and mines where they will spend the season and where our Wisconsin Bat Program (WBP) crew will search for signs of white-nose syndrome (WNS) in early 2013. After a busy year we are again in the midst of planning our winter field season.

Since our last newsletter, we completed the 2012 winter surveillance season, and fortunately did not find signs of WNS at the 115 sites visited in WI. However, in June, news arrived that the WNS fungus had been detected on a bat at a popular tourist cave in Iowa, just 30 miles from the corner of SW WI. We updated our hibernacula owners with the new information, urging them to continue their WNS prevention efforts to avoid potential human transmission of WNS. We have also partnered with researchers at the UW-Madison to produce a statewide population viability analysis. The preliminary results of this model will help guide our surveillance efforts this field season and will provide valuable information for disease management decision-making, should WNS be found in WI this winter. Additionally, we are continuing extensive WNS research involvement through cooperation in five different studies associated with two universities, the USGS National Wildlife Health Center, and USFWS. The studies will produce valuable

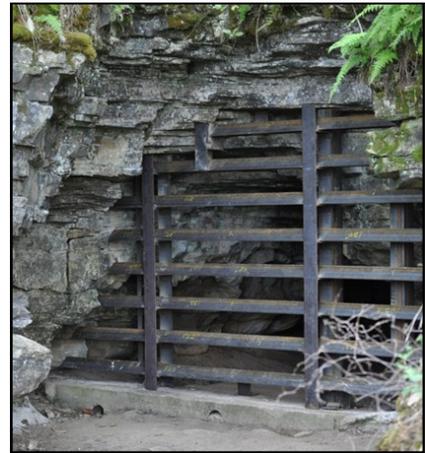
information about cause of death in WNS affected bats, effects of banding bats, effects of handling bats during hibernation, early detection of WNS, and microclimatic variation underground that may influence the growth of the WNS fungus. All of these results will help further knowledge of WNS control, management, and recovery options.

Over the summer we made repairs to a pre-existing cave gate at a state owned hibernaculum, and also stabilized and gated the entrance of a privately owned mine hibernaculum. We worked with Unimin Corporation to modify the entrance of and design a bat friendly gate for a hibernaculum entrance adjacent to an open pit sand mine.

A grant from the Coastal Management Program and partnership with Door County allowed us to replace a cave gate at Horseshoe Bay cave in Door County with a new gate modeled on current bat-friendly gate parameters. The cave, an important hibernaculum and one of the longest caves in the state, was recently acquired by Door County.

*Continued on page 8.*

*The new gate at Horseshoe Bay cave, installed in August, made use of the old concrete base and bedrock anchors from the original gate.*



## Unimin Protects Bat Tunnel

Jennifer Redell

Unimin Corporation informed the DNR about an abandoned rail tunnel near the new Tunnel City mine in 2011 as part of their project site review. No one knew if bats were using the site and in December the Wisconsin Bat Program (WBP) met with Unimin staff to investigate the tunnel. They found approximately 200 big brown bats (*Eptesicus fuscus*) hibernating inside. Due to concerns about vandalism and safety, Unimin had tentative plans to fill the tunnel and former rail grade with unusable material from the mine.

The former Chicago & North Western Rail line tunnel was constructed in 1910-1911. Though wide enough to allow for two sets of tracks, only one track was ever laid in it. A portion of the tunnel collapsed in 1972 and the entrances were sealed in 1975. A connector line was constructed the same year, allowing trains on the CNW line to access the nearby Milwaukee Road Tunnel. Vandals eventually broke through the cinderblock wall, leaving graffiti and trash in the site. Bats investigating multiple hibernation sites during the fall swarm period likely moved in

shortly thereafter. Most tunnels would be unsuitable for bat hibernation due to the location of large openings at each end which cause freezing air flow and widely fluctuating conditions during the hibernation season (October- May). The collapsed area filled one end of the tunnel, leaving only one entrance that created the buffered temperatures and high humidity bats require for hibernation. The site also provides safety from natural disturbance during this vulnerable time in the bats' annual cycle.

Over the past year WBP staff collaborated with Unimin on a plan to keep the Tunnel City tunnel open for bats. A portion of the tunnel entrance was filled with material excavated from the surface of the mine. However, instead of filling the tunnel the WBP supplied a bat-friendly gate design for the company. Unimin used its own resources to construct a heavy iron gate that prevents unauthorized human access while still allowing bats to fly through (see photo on page 8).

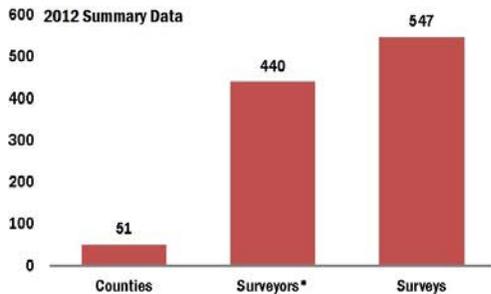
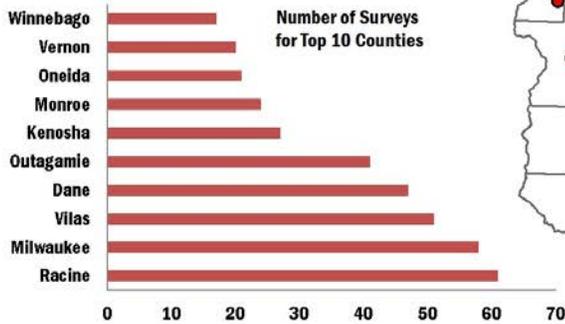
The filled rail bed adjacent to the tunnel was planted with native plants including prairie and wetland species to enhance habitat for other animals and insects. *Continued on page 8*

# 2012 Volunteer Acoustic Field Season Report

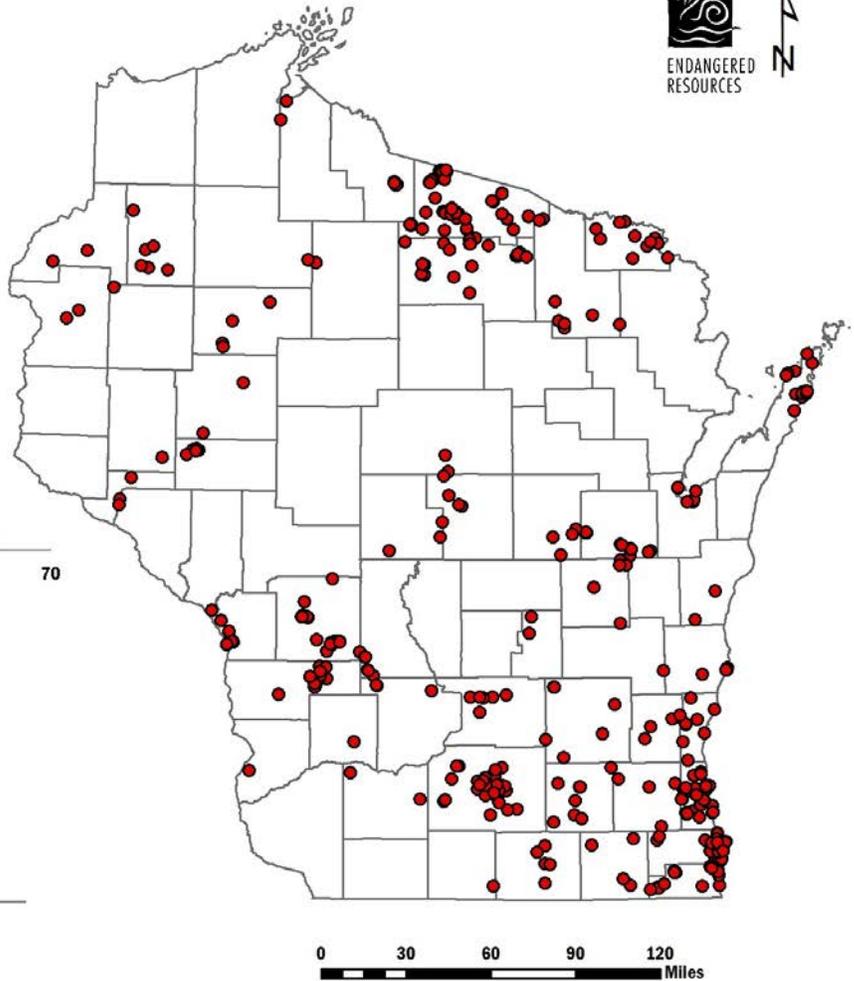
Anne Reis

## WISCONSIN BAT MONITORING PROGRAM

### ACOUSTIC BAT SURVEYS 2012



\* Does not include groups from Mauston HS, Unity HS, Grantsburg HS, and Northland College.

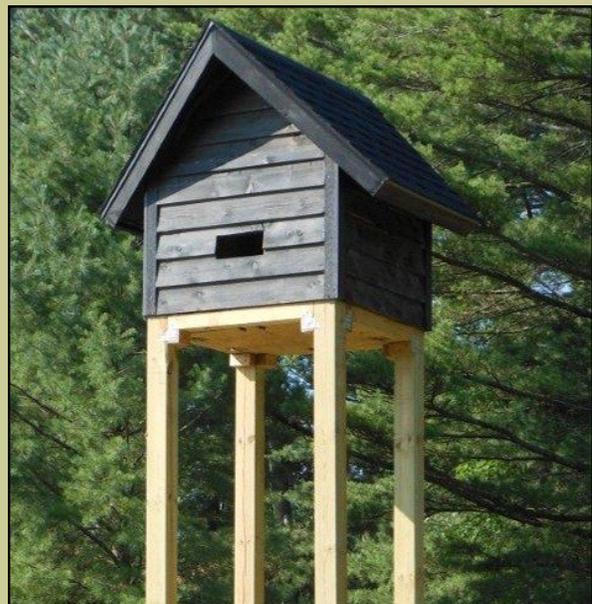


## Kohler-Andrae State Park recently received a new bat condo thanks to the park's friends group.

Friends of Kohler-Andrae State Park approached the Wisconsin Bat Program about building a bat condo after reading about the new bat condo at Devil's Lake State Park. WBP program staff help the friends group site where the condo would be constructed. The group then built the structure of the condo on the ground and used a front end loader to lift it onto the four stilts.

A new interpretive sign is being developed to accompany the condo. Be sure to visit the park and check it out! Many thanks to the friends group for giving bats in the area new roosting habitat!

Photo © James Buchholz



## Second Bat Fest a Success

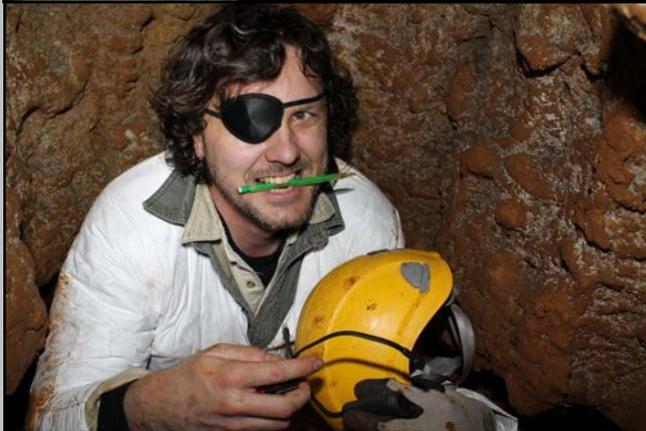
The second Wisconsin Bat Festival was again a success. Because of the popularity and limited space at Lussier Center in 2011, the Wisconsin Bat Program decided to move the festival to Warner park in May 2012. The facility included several presentation rooms, and a gym which allowed the inflatable cave, bat house building and mistnetting workshops to be inside. Over 1000 people who attended the festival got to experience live bats from around the world, make bat crafts, and learn about the bats of Wisconsin.

Highlights from the festival included: the amazing number of volunteers we had to help out, a warm and dry inflatable cave, author Brian Lies, and bat program t-shirts. Look for information about the next Wisconsin Bat Festival in the coming months. •



Volunteers painting bats, and sporting the new Bat Festival T-shirts left, and Author Brian Lies demonstrating how to draw a bat, right. Photos from Clare Dickerson

### Images from the field



## White-Nose Syndrome Update

Much is still being discovered in the world of white-nose syndrome, and research of the disease continues to be a top priority for federal and state wildlife managers alike. In addition, more of the public in the US and Canada become aware of WNS and the plight of bats every day. Scientists from a diverse group of fields and backgrounds are joining the fight for bats. Here is a small sampling of research conducted around the nation and the world in the past year:

- We learned from Dr. Paul Cryan that through the use of infrared cameras in hibernacula, we can see WNS infected bats arousing more frequently over the course of the winter.
- From Langwig et al. we learned clustering behavior of bats during hibernation increases the rate of spread of WNS through a site.
- Scientist in Wisconsin and other states are looking into creating a vaccine or other anti-fungal treatment against WNS that can be delivered to large numbers of bats.
- From Verant et al. we learned that temperature may influence how well and how fast *Geomyces destructans* (*Gd*) grows.
- Perhaps the most devastating news of all, we learned from Frick et al. that *Gd* has been detected on a bat in Maquoketa caves in Iowa, just 30 miles from Wisconsin's border.
- USFWS confirmed WNS found in a second federally endangered species, the Gray Bat (*Myotis grisecens*).

What does this mean for bat populations in North America and in Wisconsin in particular?

WDNR "bat crew" continues to stay up-to-date on current research. Recent findings can have implications that may influence how we go about helping prevent the disease from decimating the state's bat population. Wisconsin is the last stronghold for little brown bats in North America, and having healthy populations of bats allows us to work out implementation of treatments, investigate ways to prevent the disease from even getting to the state, and look at behavior of non-infected bats to use as baseline.

When coordinating winter 2012-2013 surveillance, the bat program will take into account the fact that the fungus has been found in close proximity in Iowa, and make southwestern Wisconsin hibernacula a priority. While small hibernacula with non-clustering bats are still important and still susceptible to WNS, the program may wait to conduct surveillance at those sites because of the new research finding that clustering behavior plays a major role in spread of the disease through a site.

Knowing that environmental conditions influence growth of *Gd* makes gathering environmental data from hibernacula extremely important this winter.

This winter, the Wisconsin Bat Program will conduct surveillance at roughly 50 of the highest priority sites in Wisconsin. This will not only save time, it will also limit or eliminate disturbance at smaller sites with fewer bats. The WDNR will supply a statement at the end of the surveillance season in April, and we hope the statement will include another report of clean hibernacula and bats with no fungus or disease found. •

See latest WNS map on page 10.

## Non-Exclusion Period and Broad Incidental Take

Baby bat © Kent Borcherding



A part of the listings of cave-bat species in Wisconsin included a "non-exclusion period" from June 1 through August 15 every year. During this time, mother bats have given birth to young which are unable to fly for about 6 weeks after birth. Mother bats leave the roost nightly to forage and return periodically to nurse their pups. Conducting exclusion

(process of evicting bats from a building) during this time will separate mothers from their pups.

Not only will this cause the pups to die, but frantic mothers trying to get back to their pups often find their way into living spaces of people's homes. Attempting exclusion during this period often causes more trouble than simply waiting until late summer to conduct exclusion.

Pest control operators have been following the non-exclusion period for two full seasons and have had many helpful suggestions as to how the law has affected them and how it could potentially be changed to benefit both the bats and professional excluders. Due to responses from pest control operators and their clients alike, the WDNR will revisit the Broad Incidental Take (IT) Permit this winter and ask for input from stakeholders. The Broad IT can be reviewed here:

<http://dnr.wi.gov/topic/ERReview/Documents/BatConservationPlanI-10-11b.pdf>

For more information contact the Bat Program: [DNRbats@wisconsin.gov](mailto:DNRbats@wisconsin.gov) or 608-266-5216 •

## Volunteer Profile: Maureen and Bethany Vanderhoof

### Volunteer projects you are involved with:

- DNR/ Bat Monitoring Program
- Wehr Nature Center/ Halloween Haunts and various programs through the year
- Local Dog Rescue Group/fostering, home visits, managing dog health care, transport of dogs etc.

### Why you volunteer:

Before we learned about the Wisconsin Bat Monitoring Program, we used to stand on our front porch late on summer evenings and vigilantly wait for any bats passing through our urban neighborhood. We were always delighted to watch that one solitary bat circle the street lights in search of his dinner. Now, thanks to this program, we can contribute to the study of bats in southeastern Wisconsin and share our appreciation of bats with experts and other volunteers. There are several reasons why we choose to volunteer.

Mainly, we feel it is important to help the DNR gather data to establish a baseline for the species of bats in Wisconsin. This is more important now due to the white-nose syndrome, which is approaching our borders. We make it a point to travel to sites in different counties to get a broader idea of which bats are where. Furthermore, the equipment is very interesting, fun to use, and allows us to experience bats in a way that we wouldn't have otherwise.

### What do you get out of it:

In addition to the satisfaction of knowing we help gather real data to track Wisconsin's bats, we really enjoy learning from and working with scientists, bat experts, other volunteers, and guest speakers at various events. We have met and shared information with helpful, knowledgeable, and friendly rangers in the wonderful state parks that are in Wisconsin. Spending time after dark in our state parks is truly "magical" as one ranger put it.

### What is your favorite part if the program:

Even though we love working with so many talented and dedicated people, the bats themselves are the real highlight of the program. The second the Anabat monitor chirps, we search the black sky to catch a quick glimpse of these marvelous creatures. During one of our last bat walks of the season, we encountered five bat species, including some northern long-eared bats, which was very exciting to us because it was our first time to find that species. In addition to our bat encounters on the trails, we always look forward to getting back the official DNR interpreted data from our night treks. Opening an email attachment containing the GPS map that shows our routes and the bat species we found is like opening up a long-awaited gift. We often share this information with friends, family, classmates, neighbors, and students.

"Opening an email attachment containing the GPS map that shows our route and the bat species we found is like opening a long-awaited gift."

### What you tell others to get them excited about volunteering:

We try to get the word out as much as possible about the benefits of bats and the value of the Bat Monitoring Program. On numerous occasions, both of us have given informal presentations to help educate the public about bats. We have used the data maps and have demonstrated the monitoring equipment for students, peers, and the public, which really holds people's attention. We found that with education people become more receptive to the idea of living side by side with these often misunderstood animals.



### Volunteers from the first Yellowstone Lake

**State Park Bat Blitz:** Andrew Badje, Madeline Emde, Mike Huasta, Brittany Schumaker, Scott Alfeld, Gary Emerson, Andria Blattner, Chris Alfeld, Jill Rosenberg, John Chancellor, Deanna Byrnes, Paul White, Mary Burek-Faber, Mark Faber, Sarah Bennet. In June over **3200** bats were counted from the bat houses and over **3900** in August!

Volunteers not pictured from the second Yellowstone count and from Devils Lake count: Jeff Durbin, Matt Schumaker, Emily Wiese, Krista McGinley, Vivian Pusian, Kent Borcharding, Lynn Borcharding, Noah Balgooyen, Marci Hess, Jim Hess, Kathy Spring, Jenna Spring, Nate Friese.

## Cave and Mine Cont.

The grant funds the development of a cave management plan in cooperation with the county, and installation of an infrared beam break bat monitoring system.

For the past two summers the UW-Platteville Biology Department and the WBP have been capturing and tagging bats using similar technology to that used to identify pets. PIT (passive integrative transponder) tagging bats allows for the tracking of an individual bat at roost and cave sites with the help of an antenna. Bats are tagged over the summer and recovered with handheld PIT tag readers at hibernacula. Two tagged bats were identified hibernating in mines last winter after being tagged the previous summer at a summer roost and a foraging area.

The Citizen Based Monitoring (CBM) project counting bats using the tunnels on the Elroy-Sparta State Trail continued for a second year thanks to a very dedicated core group of volunteers. Early this year interpretive signs were placed at tunnel entrances and trail access sites to let trail users know about the importance of not transporting clothing or other items that have been underground into the trail

tunnels. Similar WNS prevention plans are in place at all WI cave & mine hibernacula that are open to the public. Thanks to the two years of data that have been collected at caves and mines we are now able to create winter range maps for our bat species.

Of course, on a personal note, this year has brought many changes for the WBP. In July we discovered that my husband Dave's brain cancer had returned and that he only had a few weeks to live. Dave, as the WDNR's bat ecologist, worked extremely hard in the past few years to prepare the program for his eventual absence. I am personally so proud of what he accomplished during his career and honored to have worked with him. Though losing him has been extremely difficult, Dave's legacy of preparation in advance of WNS will guide the program's efforts in the coming years. We feel his presence in our continued work, as he in some manner inspired, created, or sculpted nearly every aspect of the Wisconsin Bat Program. His influence will be felt for years to come. •



*Installed in 1986, the former gate at Horseshoe bay cave restricted air flow and was not compatible with current bat-friendly gate standards.*



*As part of the matching funds required by the grant, Door County Parks Department provided equipment, labor, and some materials for the new gate.*

## Unimin Tunnel Cont.

Unimin has previous experience with bats hibernating at project sites. A Unimin owned mine in Illinois was modified and gated in 1996 and as a result the federally endangered Indiana bat population using the site to hibernate increased dramatically from 100 individuals in 1996 to 36,000 recently.

*Before: With only one entrance, this partially collapsed rail tunnel provides the buffered temperatures bats need for hibernation. Photo: WDNR*



Unimin has plans to construct and place bat houses on the 1200 acre Tunnel City site. While the tunnel offers shelter during winter, bat houses provide important summer habitat for female bats, which use bat houses as maternity roosts. This is not the first mining company partnership with the WBP. For years, the program has also worked closely on bat management with Fairmount Minerals, owner of Bay City and Maiden Rock sand mines in Pierce County, two of the state's largest hibernacula. •

*After: Reinforced angle iron bars spaced 53/4 in. apart allow bats to access the tunnel while excluding unwanted guests. Photo: Unimin*



# WISCONSIN BAT PROGRAM VOLUNTEERS THANK YOU!!!

In the past 5 years, the WPB has had help from more volunteers than can be listed on this page.

## Acoustic Monitoring

Thank you to the countless nature centers, universities, regional coordinators and volunteers who help make hundreds of acoustic surveys happen every year.



## Roost Monitoring

Thank you to the landowners and bat counters who keep both eyes on their residents over the summer.



## Elroy-Sparta Tunnel Counts

Thank you to the dedicated counters braving total darkness and chilly weather to count the bats using the Elroy-Sparta bike tunnels.

## Bat Fest

Thank you to the volunteers who help coordinate, run and plan Bat Fest and without whom, the fest could not happen.



© D Z Johnson

### WAYS TO GET INVOLVED

The Wisconsin Department of Natural Resources' Wisconsin Bat Program relies heavily on grants and funding support from citizens who are interested in bat conservation. Get involved and help Wisconsin's bats in one of several ways:

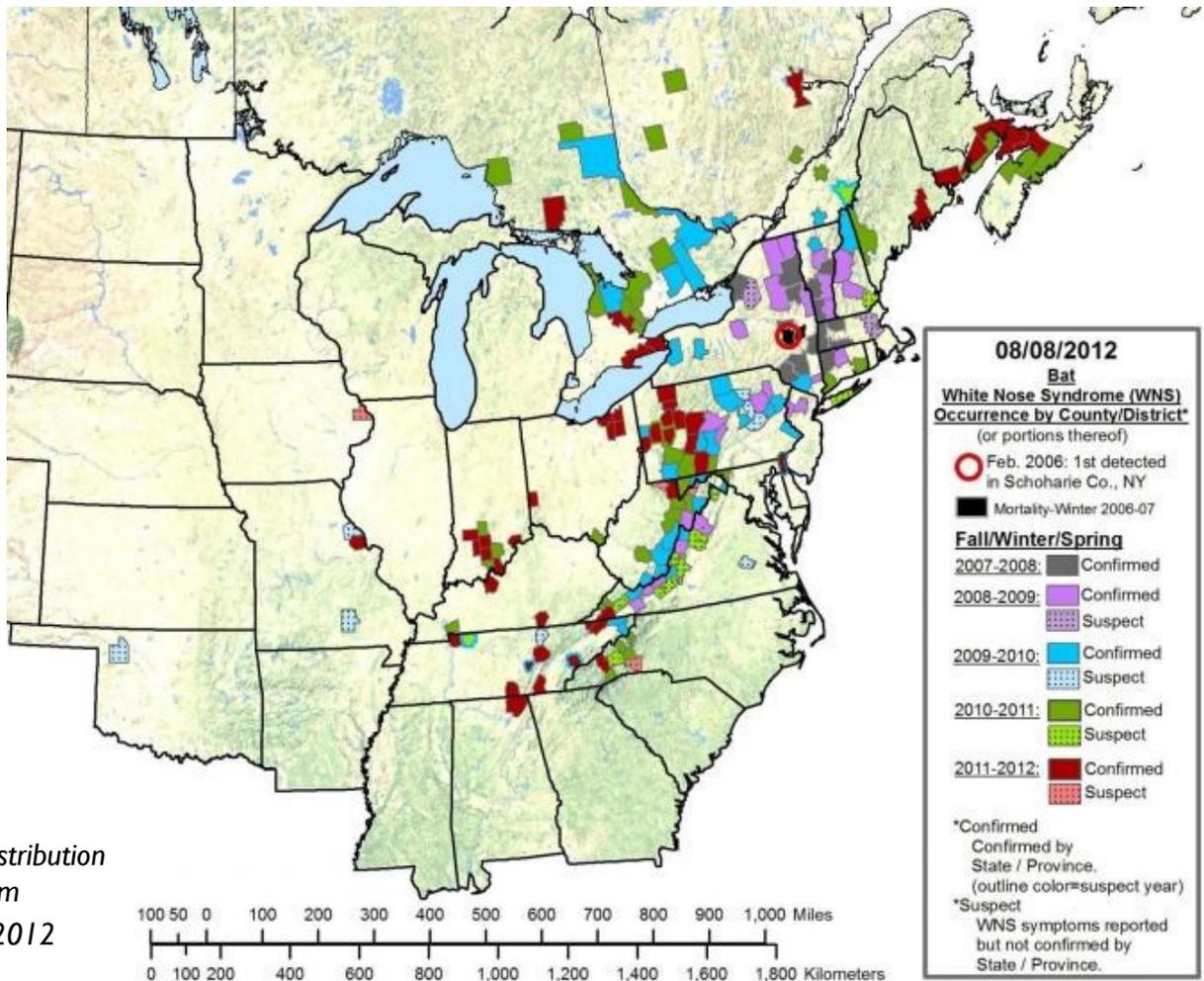
- Become an acoustic monitor
- Conduct a summer roost count
- Put up a bat house in your yard
- Help out at the WI Bat Festival
- **Donate** to the *Wisconsin Bat Conservation Fund*— your gift is tax deductible

**Featured Bat:**  
**Hoary Bat, *Lasiurus cinereus***



The hoary bat is Wisconsin's largest bat. It is very colorful having tan fur with silver tips that give the bat its name. The hoary bat also has fur on the insides of the wings and on its tail membrane. The hoary bat migrates south during the winter months, often as far as Central America. During the summer while in Wisconsin, this species is generally solitary and roosts in trees during the day. The colorful appearance of this bat helps it blend into its surroundings, and they can disguise themselves as leaves.

Hoary bats have four mammary glands and can give birth to four young, however usually only one or two pups are born per year in early summer. Hoary bats fly high and late at night in open fields and along edges when they navigate and forage. Because of this behavior, these bats are notoriously hard to catch in mistnets. Hoary bats eat moths and beetles. The hoary bat has even been known to predate Wisconsin's smallest bat, the eastern pipistrelle! •



WNS distribution map from August 2012

## David Redell's Obituary

David N. Redell, bat ecologist for the Wisconsin Department of Natural Resources, passed away on Tuesday, September 18, 2012, at his home in Madison surrounded by his family.

Dave was born on April 27, 1970, in La Crosse. He is survived by his wife and colleague, Jennifer (Schehr) Redell of Madison; brother, Alan (Jennifer) Redell of Sheboygan; mother, Claire Redell of Delafield; nieces, Amelia, Sarah, and Lauren; uncle, Karl Redell of Delafield; cousins Leah and Julie; ex-wife, Lisa Wilson; the DNR "Bat Crew" and many friends.

Dave devoted his life to the study and conservation of bats; an intriguing and valuable, though often misunderstood group of animals now facing multiple threats. This passion was ignited when he enrolled at UW-Madison in 1997. Later his graduate work there focused on the behavioral ecology of bats using Neda Mine, the Midwest's largest bat hibernaculum. After receiving his master's degree in 2004 David became the first bat ecologist for the Wisconsin Department of Natural Resources in the Bureau of Endangered Resources. Inspired by a feeling of responsibility to the citizens of the state he loved, Dave was motivated to work hours far beyond those he was paid and often commented on having the "best job in the world."



In addition to building the DNR's Wisconsin Bat Program, Dave worked to enact vanguard regulations to protect Wisconsin bats and developed a plan that will guide the state's response to white-nose syndrome, a disease devastating hibernating bat populations in North America. He was highly regarded by national, regional, and local partners, served as Vice President of the Midwest Bat Working Group, and recently initiated the first Wisconsin Bat Festivals. Dave was recently honored with the prestigious Silver Eagle Award from the US Fish & Wildlife Service and with a Lifetime Achievement Award from the Midwest Bat Working Group.

Though Dave lost his life to brain cancer, he did not want to be recognized as a person fighting or battling cancer. Instead he lived the years since his 2002 cancer diagnosis with an intensified passion for his work and a heightened sense of urgency to accomplish what he could given a shortened timeframe. Always anxious to teach others about the importance of bats, Dave was grateful for the time and efforts made by the many volunteers of the Wisconsin Bat Program. He had a unique gift for inspiring instant camaraderie with people and those who interacted with him went away with a new appreciation for bats, often commenting on how they now noticed their aerial acrobatics at dusk in a way they hadn't before. Dave's passion, dedication, outside-the-box approach, warmth, and humor impacted and inspired those that knew him. It is the hope of his family and friends that his legacy will continue to wing its way across evening skies in the little bodies of bats long into the future.

Dave contributed his own money to establish the Wisconsin Bat Conservation Endowment Fund, which will be used to fund future research projects and long-term bat conservation efforts in Wisconsin. The endowment is less than 10% to its goal of \$2 million. Contributions to the fund are tax-deductible and can be made through the Natural Resources Foundation of Wisconsin, Attn: Wisconsin Bat Conservation Endowment Fund, PO Box 2317, Madison, WI 53701 or by donating online at [www.wisconservation.org](http://www.wisconservation.org). •

Program website: <http://wiatri.net/inventory/bats>  
**WISCONSIN BAT PROGRAM STAFF**

**Erin Crain**  
Bureau Director, Bureau of Endangered Resources  
Erin.Crain@wisconsin.gov

**David Redell**  
Bat Ecologist

**J.Paul White**  
Acoustic Monitoring Coordinator  
John.White@wisconsin.gov

**Heather Kaarakka**  
Roost Monitoring Coordinator  
Heather.Kaarakka@wisconsin.gov

**Jennifer Redell**  
Cave & Mine Specialist  
Jennifer.Redell@wisconsin.gov

Report colonies, caves, or unusual bat behavior at [DNRbats@wisconsin.gov](mailto:DNRbats@wisconsin.gov)  
or by calling 608-266-5216



State of Wisconsin  
Department of Natural Resources  
Box 7921  
Madison, WI 53707-7921

To subscribe or unsubscribe to the WI Bat Program mailing list, please visit the [GovDelivery site](#) or follow the mailing list link on the Bat Program website.

If you have suggestions for articles, or have a story you would like to contribute, contact:

[Heather.Kaarakka@wisconsin.gov](mailto:Heather.Kaarakka@wisconsin.gov)

Or

[Jennifer.Redell@wisconsin.gov](mailto:Jennifer.Redell@wisconsin.gov)



Scan this barcode with your smartphone to go directly to the Wisconsin Bat Program Website!

**NEW!!**

The Wisconsin Bat Conservation Society is an annual membership where groups and citizens can support bat projects that need immediate funding. Specifically, these funds will be used for WNS research, landowner support in WNS prevention and control, surveillance, inventory, monitoring, applied management, and education about the benefits of bats. For details about how to donate head to: [www.dnr.wi.gov](http://www.dnr.wi.gov) keyword <bats>

**\*If you see sick or dead bats this winter, please contact the program!**

The Wisconsin Department of Natural Resources' Wisconsin Bat Program relies heavily on grants and funding support from citizens who are interested in bat conservation

# Support the Wisconsin Bat Conservation Fund



The Wisconsin Bat Conservation Fund is a permanent endowment managed by the Natural Resources Foundation of Wisconsin. Contributions to the Fund will support bat conservation needs in Wisconsin.

Yes! I would like to make a contribution to the Wisconsin Bat Conservation Fund.

**Gift Amount**

- \$25
- \$50
- \$100
- \$250
- \$500
- \$ Other

Please send me information on how I can leave a bequest to the Fund through my estate plan.

**Name(s)** \_\_\_\_\_

**Address** \_\_\_\_\_

**Phone** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**Email** \_\_\_\_\_

Make checks payable to the Natural Resources Foundation and mail to: Natural Resources Foundation of Wisconsin, Attn: Wisconsin Bat Conservation Fund, PO Box 2317, Madison, WI 53701. The Natural Resources Foundation is a 501(C)3 tax-exempt organization. Receipt of gift will be officially recognized by the Foundation. Contributions are tax deductible to the extent allowed by law. Visit [www.wisconservation.org](http://www.wisconservation.org) to donate online.