



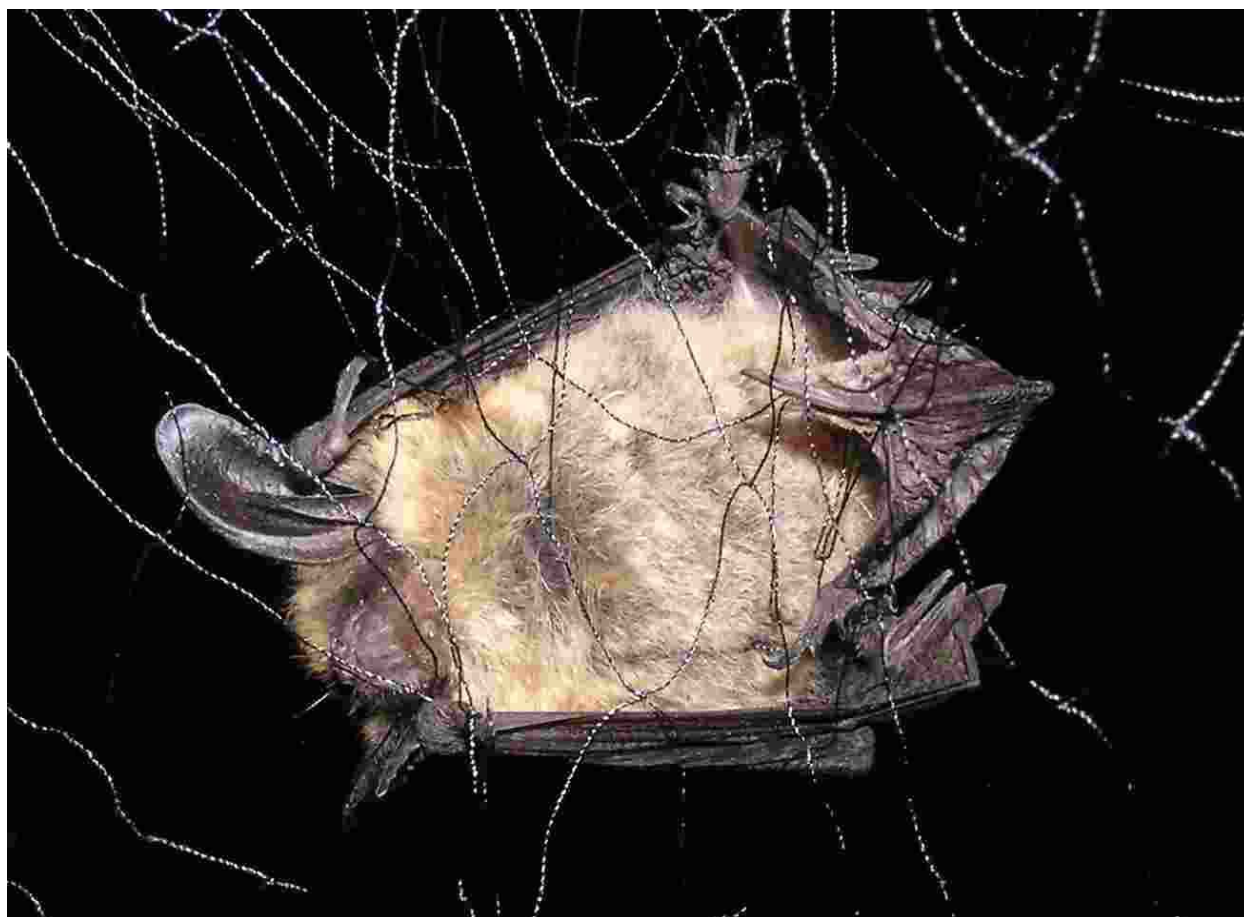
# WBWG NEWS

Volume 6, Number 2

Fall 2010

## **Keen's myotis (confirmed by DNA). Photo by David Nagorsen.**

Keen's myotis has a restricted distribution along the west coast of North America. It is closely related to other long-eared species and is difficult to identify in the hand. Genetic studies of this long-eared species complex are ongoing (page 10).





# WESTERN BAT WORKING GROUP NEWSLETTER

Fall 2010

Volume 6, Number 2

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**The Western Bat Working Group (WBWG) is a partner in the Coalition of North American Bat Working Groups. The WBWG is comprised of agencies, organizations and individuals interested in bat research, management, and conservation from 15 western U.S. States, five Canadian provinces and territories, and northern Mexico.**

Membership in the WBWG is open to anyone who is interested in participating in bat conservation. There are no membership fees or dues. Funding for bat conservation work accomplished by the WBWG is generated by state and federal land management agencies, non-governmental organizations, and by donations from individual members.

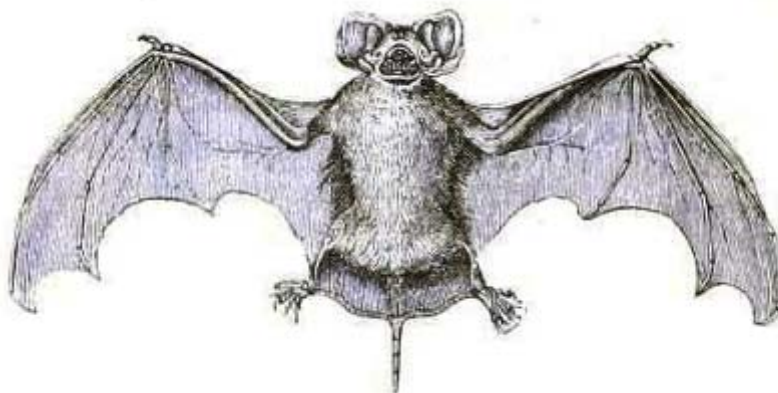
Visit our webpage <http://www.wbwg.org/> to contact us, find bat conservation information, upcoming meetings, become a member, link to state or provincial bat working groups, or download previous issues of this newsletter.



## **OFFICERS**

<b>President</b>	Rita Dixon
<b>Vice President</b>	Cori Lausen
<b>Treasurer</b>	Brad Phillips
<b>Secretary</b>	Heather Johnson
<b>At-large representatives:</b>	Martin Grenier Dave Johnston
<b>Presidential appointees:</b>	Tim Snow, Angie McIntire

**Newsletter Editors:** Lorraine Andrusiak, Julie York



NOTE: Generally common names are used for bat species in the newsletter. Corresponding scientific names are listed below.

<u>Common Name</u>	<u>Scientific Name</u>
Big brown bat	<i>Eptesicus fuscus</i>
Cave myotis	<i>Myotis velifer</i>
Eastern red bat	<i>Lasiurus borealis</i>
Fringed myotis	<i>Myotis thysanodes</i>
Hoary bat	<i>Lasiurus cinereus</i>
Keen's myotis	<i>Myotis keenii</i>
Little brown myotis	<i>Myotis lucifugus</i>
Long-eared myotis	<i>Myotis evotis</i>
Long-legged myotis	<i>Myotis volans</i>
Brazilian (Mexican) free-tailed bat	<i>Tadarida brasiliensis</i>
Northern myotis	<i>Myotis septentrionalis</i>
Pallid bat	<i>Antrozous pallidus</i>
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>
Silver-haired bat	<i>Lasionycteris noctivagans</i>
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>
Western mastiff bat	<i>Eumops perotis</i>
Western red bat	<i>Lasiurus blossevillei</i>
Western small-footed myotis	<i>Myotis ciliolabrum</i>
Yuma myotis	<i>Myotis yumanensis</i>



## PRESIDENT'S CORNER

For a long time, Chuck Harris's old bat files sat on the floor in the corner of my office. In thinking about this letter, I decided to go through the files to see if I could find Chuck's insights into the history of the Western Bat Working Group. What I found was perspective. Chuck saved everything. Scrolled in pencil in his hand with a characteristic slant I found file tabs labeled: *Misc. Bat Papers*, *Townsend's Big-eared Bat CS*, *Northwest Bat Cooperative*, *BCI Bats and Mines*, *Anabat*....and then *Bat Species Accounts 1998 WBWG Mtg.*, *WBWG/BCI Bat Mapping Project*, *WBWG 2007 Conference*, etc. Chuck's files recount not only some of the early efforts of WBWG members, but also provide a frame of reference—chiefly, evidence of process.

**pro-cess**, n. 1. A systematic series of *actions* directed to some end. ACTIONS. With less than five months remaining in my tenure as president, I take stock, and approach the coming months with purposefulness. Priorities. I would like to see us accomplish the following:

- Update WBWG Action Plan to reflect the actions that have been completed, address the actions that haven't, and identify new actions needed
- Review and revise WBWG Bylaws to ensure their currency
- Finalize WNS Action Plan
- Revamp the WBWG Web site to give it a fresh look and to enhance its functionality
- Tally election votes and announce new officers
- Fundraise to offset the costs of our 2011 biennial meeting, but more importantly, to increase WBWG's capacity to provide support to students through scholarships and travel support, purchase equipment for the Bob Berry Lending Library, and provide support for other worthy endeavors
- Make final preparations for the 2011 WBWG Biennial Meeting and Bats and Wind Energy Workshop

IUCN, the International Union for Conservation of Nature, cites five main threats to biodiversity: habitat loss and degradation, introductions of invasive alien species, over-exploitation of natural resources, pollution and diseases, and human-induced climate change. All of these are relevant to bats. What are the most important actions that we as a group can do to effect conservation and reverse some of these threats?

### UPDATES

Angie McIntire and I were recently invited by the U.S. Fish and Wildlife Service (FWS) to serve as western state agency representatives on an ad hoc team to develop a National WNS Surveillance Plan. Concurrently, Pat Ormsbee was appointed by the U.S. Forest Service (USFS) to represent the agency on the team. The goal is to develop guidance that can be used at the state level for the standardized collection of samples and information related to detecting *Geomyces destructans* and WNS. Eric Britzke (U.S. Army Engineer Research and Development Center) leads the effort, and worked with others to develop a draft from which the ad hoc group works. We hope to have a working draft in place by December 20, 2010. Finally, Angie McIntire and Scott Osborn are currently working with interested states to develop a multi-state WNS proposal to submit to the State Wildlife Grants Competitive Grant Program by December 15.

In addition, the WBWG WNS Committee is working on drafting a response to the National Plan for Assisting States, Federal Agencies, and Tribes in Managing White-nose Syndrome in Bats. We recently sent out a solicitation to WBWG members for input on this plan and also encourage everyone to provide feedback directly to FWS. Input received from the solicitation that went out





to members will be addressed in the collective WBWG response. This draft response will go out to the Board of Directors for approval prior to sending to FWS by December 26, 2010. You can access the plan at <http://www.fws.gov/whitenosesyndrome/>.

## *ELECTIONS*

WBWG elections are underway and we anticipate that the ballot will go out by November 29, 2010. Remember—each State/Province/Territory receives only ONE vote so it is essential that members send their vote to their respective State/Provincial representative. Also, those voting must be WBWG members. Instructions for obtaining membership, as well as information on elections, are located on our website at <http://www.wbwg.org/>.

## *2011 WBWG Biennial Meeting*

Planning for the April 2011 WBWG Biennial Meeting and Bats and Wind Energy Workshop is underway. It will be held in Las Vegas, Nevada, at the Green Valley Ranch Resort, Spa and Casino. A special evening event will be held off-site at Spring Mountain Ranch State Park that will include a nocturnal equipment demo and catered BBQ dinner. I encourage all to attend.

I would like to welcome our new board members: Laura Ellison joins Kirk Navo to represent Colorado; Nate Schwab recently joined Kristi DuBois to represent Montana; and Michelle Caviness (past WBWG Secretary), returns to join Steve Langenstein as an Oregon representative. To all of you—welcome to the Board and I look forward to working with you.

Finally, Bat Conservation International (BCI) is interested in developing a Memorandum of Understanding (MOU) with WBWG. I met recently with Ed Arnett and Nina Fascione to discuss this possibility. Subsequently, Ed drafted an MOU that I will review and send out to the Board for consideration during our next conference call on December 13. The purpose of the MOU is to foster collaboration between our organizations toward mutual goals.

It remains an honor to serve this group of dedicated individuals. Although some of the responsibilities will change hands, I look forward to the future.

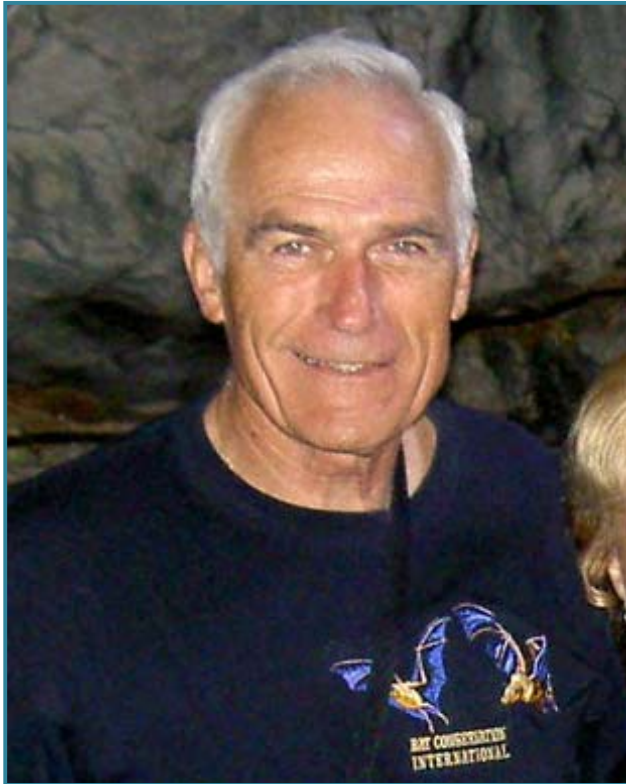
Sincerely,

Rita Dixon,  
President





## BOB BERRY FUND DONATIONS REQUESTED



Pat Brown-Berry will again match donations of up to \$1,000 in 2010 for the Bob Berry Fund. Award(s) for 2011 will depend on the funds or equipment donated, and will be presented at the biennial meeting of the WBWG in Las Vegas in 2011. The application form for awards will be available on the WBWG website by early January 2011.

The impetus behind the generous donations to this fund is to perpetuate Bob's legacy of assisting others. Bob used his engineering and computer skills to refine the tools used for bat-related field work, and to help people to understand the different and changing technologies. Bob worked best one-on-one and offered his expertise to many students and agency biologists. The goal of these awards is to facilitate research by providing current technology and training from the developers of the technology.

Some excellent proposals were received and awards presented at the biennial meeting of the WBWG in Austin, April 17, 2009. The WBWG scientific research advisory committee reviewed the proposals. The following awards were given:

- The Bob Berry Holohil Award: Elizabeth Braun de Torrez of Boston University for *Foraging behavior, habitat selection and ecosystem services of bats in a Texas pecan agro-ecosystem* received six transmitters donated by Holohil and a \$1,000 cash award for receiver purchase or to cover research expenses.
- The Bob Berry Titley Electronics Award: Tammy Branston and Eric Weiss of the California Department of Fish and Game for *Acoustic monitoring of bats during the rewatering of the Lower Owens River* received an SD1 receiver and a free spot (Eric participated) in one of the Anabat training sessions donated by Titley Electronics.
- The Bob Berry Binary Acoustic Technology and Sonobat Award: Janene Lichtenberg, Wildlife Biologist with the Confederated Salish and Kootenai Tribes for *Bat survey of the Flathead Reservation based on the Montana Bat Grid Protocol* received an AR125 Ultrasonic Receiver, SPECT'R software and an FR125 field recorder donated by Mark Jensen, and a Sonobat full software suite donated by Joe Szewczak.

Awards criteria were:

- 1) the need for specific equipment or technological training to further bat field research and/or conservation.
- 2) that the results of the research or project will help to perpetuate bat conservation in the western United States, and that the initial investment will continue to return benefits.
- 3) that sound scientific methods are integral to the proposed project.



## 40<sup>TH</sup> NORTH AMERICAN SYMPOSIUM ON BAT RESEARCH (NASBR)

*Rita Dixon, President, Western Bat Working Group*

Held at The Hyatt–Regency Tech Center, Denver, CO, October 27-30, 2010, the 40th North American Symposium on Bat Research (NASBR) kicked off with a lively opening reception, sponsored by Wildlife Acoustics. The evening was a buzz of friends and colleagues gathering to catch up, leaving most of us with sore throats the next day from trying to talk above the din. Energy from the evening carried over into the next three days of oral and poster presentations as diverse in their topics as they were in geographic scope.

From Madagascar to the Malaysian rainforests, from the Mariana Islands to the karst regions of Kentucky, from Manitoba and northwest Ontario to southern Chile and beyond, we heard presentations on everything from evolution, echolocation, behaviour, disease, feeding and reproductive ecology, to conservation biology, systematics, genetics, wind energy, behavioural ecology and fire ecology. To temper the gravity of some topics, such as White-nose Syndrome, we were captivated by video footage of a mother tent-building bat, the Honduran white bat (*Ectophylla alba*), and her young.

Another highlight of the program was the evening videography workshop hosted by Nickolay Hristov and Louise Allen, with guest filmmaker Ann Prum. Among the topics covered in this workshop were the latest developments and applications for video recording, editing and production with HD, IR, high-speed video, thermal imaging and computer generated image (CGI) for nature documentary. Nickolay and Louise emphasized that we all have interesting stories to tell about our work and encouraged everyone to film their work. Their hope is that the workshop will evolve into a NASBR short-film festival. See [http://www.nasbr.org/meetings/40\\_denver/filmworkshop.html](http://www.nasbr.org/meetings/40_denver/filmworkshop.html) for a more detailed summary.

Andreas Streit, Executive Secretary of UNEP/EUROBATS traveled from Bonn, Germany to talk about the Agreement on the Conservation of Populations of European Bats (UNEP/EUROBATS) ([www.eurobats.org](http://www.eurobats.org)) and the UNEP-backed *Year of the Bat* campaign (<http://www.yearofthebat.org/>) launched on September 22, 2010 to promote bat conservation, research and education. Serving as honorary ambassador is Dr. Merlin Tuttle.

In addition to the superb scientific program, the meeting culminated with a banquet and auction on Saturday evening. Robert Barclay served as the auctioneer extraordinaire and kept the money flowing and the banquet attendees rolling with laughter. If employed by heads of states, I am convinced he could reduce national debts.



Auctioneer Robert Barclay looking for a bidding. Photo by Dave Johnston.





Adding flair to the evening, and clad in her batwoman costume (complete with white cotton around her ears to symbolize the fight against WNS), Pat Brown channeled Vanna White as she strolled around the banquet room showing off the auction items.

**Pat Brown-Berry as Vanna White. Photo by Dave Johnston.**

Back by popular demand, Tom Kunz, Gary McCracken and Wieslaw Bogdanowicz danced to the Macarena joined by Pat Brown and Erin Gillam in an encore performance. They put the former U.S. Vice President Al Gore's performance to shame when he performed the dance at the 1996 Democratic National Convention and was quoted to say that when he performed it, "there's no visible movement." There was plenty of visible movement by Kunz *et al.* and they generated quite the fundraising sensation.



**Left to right: Pat Brown, Tom Kunz, Wieslaw Bogdanowicz, Erin Gillam, Gary McCracken. Photo by Dave Johnston.**

Not to be outdone by The Macarena Dancers, Rodrigo Medellín, Armando Rodríguez-Durán (aka Mandy), and Frank Bonaccorso (otherwise known as *The Tenors*) paraded among the table rounds as they performed the Spanish rendition of the song *Feelings*, giving a personal table serenade to those who held up large bills. Although included in the 1998 Rhino Records compilation album *70s Party Killers*, *Feelings* (or *Sentimientos*) was transformed by Rodrigo *et al.* into a 2010 Party Sensation at NASBR.

*Feelings... whoa whoa whoa...Feelings....*

Finally, one of the best parts about the meeting was getting to visit with other WBWG members. In addition to an Officers meeting, nearly 20 WBWG members gathered for dinner at Il Fornaio for a wonderful evening of food, wine, and conversation. For more information on NASBR, a meeting summary will be available soon on the NASBR Web site at <http://www.nasbr.org/>.





## AUCTION ITEMS NEEDED FOR APRIL 2011 WBWG MEETING

In past WBWG meetings, we had a fun fundraiser thanks to the generous donations of our members and vendors. To keep this great tradition going, we need your help. Please contribute an item or service for our raffle and/or auction for the April 2011 biennial WBWG meeting in Las Vegas. Contact Pat Brown (patbobbat@aol.com) on what you can contribute. We will have an address in Las Vegas where you can send the item to in March if you don't want to bring it to the meeting. Thanks in advance for your generosity.

## STATE/PROVINCIAL UPDATES

### CANADA

#### Northwest Territories (NWT)

*Joanna Wilson, NWT Species at Risk Secretariat*

A bat survey was conducted from September 15-19, 2010, in the South Slave region of the NWT near Fort Smith. Little brown myotis, northern long-eared myotis and one big brown bat were captured. The region contains substantial limestone karst formations and could provide a great deal of important bat hibernation habitat. One hibernaculum was confirmed in the area, which contained over 2,000 little brown myotis. This is the first confirmed hibernaculum in the NWT and it is outside the boundary of Wood Buffalo National Park. No visible signs of white-nose syndrome were observed. A potential study is being planned to gather local knowledge on bats and other lesser-known species in the South Slave and Dehcho regions, to improve baseline information on bats in the NWT and possibly identify other potential hibernacula. The government of the Northwest Territories now has a bat detector to help with monitoring and collection of baseline information.



Little brown myotis. Photo by J. Wilson.



## British Columbia

### *Cori Lausen*

A large-scale radiotelemetry and roosting project was undertaken as a collaborative effort between BC Hydro and Ministry of Environment in the Lillooet area. Francis Iredale and Jared Hobbs, together with Mike Sarell, Thomas Hill and others did two mistnetting and radiotracking sessions (one in July and one in August) tracking several species of bats, including Townsend's big-eared bat and fringed myotis.

The Ministry of Environment Long-eared Bat project completed another field season of sampling. This is likely to be the final sampling session. Dave Nagorsen, Doug Burles, Cori Lausen and Purnima Govindarajulu captured bats for genetic samples in the Vancouver, Whistler, Grand Forks, Castlegar, Trail, Lillooet, Oliver and Cranbrook areas. Mike Russello of UBC Kelowna will continue the genetic analysis this winter, building upon the work of Jan Zinck and Tanya Dewey.



A second project, also sponsored by BC Hydro's Bridge Coastal Restoration Program, involved inventory of bats in the Buntzen, Alouette and Stave-Hayward drainages in the Lower Mainland. Biologists Mike Sarell and Lorraine Andrusiak spent five nights in each drainage, mist-netting bats and collecting acoustic data. Species captured include little brown myotis, Yuma myotis, and Keen's myotis/long-eared myotis (DNA results pending). Additional species were detected on the AnaBat recordings, which are awaiting analysis.

**Long-eared species captured in the Lower Mainland of BC.  
Photo by L. Andrusiak.**

### **New Bat Species for British Columbia**

Charlie Palmer of Hemmera reports that eastern red bat has been documented present in northeastern BC this year, approximately 20 kilometers from the Alberta border. The discovery was made by Brian Paterson of Hemmera, and was confirmed by David Nagorsen of Mammalia Consulting. Though the species was long suspected to occur, this is the first documentation of its presence in the province. A short communication on the confirmation will be written by Hemmera / Mammalia during winter 2010/2011. This discovery adds a new species to the list of bats that should be considered by biologists working in northeastern BC.



## Alberta

*Cori Lausen*

Cori Lausen and Dave Hobson visited the Alberta portion of Wood Buffalo National Park (Canada's largest national park) in September 2010 to assess bat swarming and hibernacula. The area is rich in limestone karst, offering much potential for bat hibernation. Bats were counted in one previously known bat hibernacula and mistnetting allowed species composition to be determined. Several Parks Canada employees assisted with the survey, including Sharon Irwin, project coordinator.

Three species were found entering the sink holes and foraging in the surrounding areas: northern myotis, little brown myotis and big brown bats. The presence of the latter species is of interest given that no big browns have been recorded or captured over the past 10 years of intense bat survey immediately to the south of the park. This suggests that species may be arriving at these sinkhole hibernacula from northern areas in NWT.

## USA

### Idaho

*Compiled by Rita Dixon, Idaho co-chair*

Theresa Mathis (BLM) reported that the BLM Upper Snake Field Office in Idaho Falls found a Townsend's big-eared bat roost during routine monitoring of abandoned mine lands. BLM staff are also trying to set up fall acoustic monitoring of known hibernacula to determine bat usage of certain caves before hibernation begins and which species are using the caves during migration. This project is in the early stages. They are just beginning to collect data and trying to work out the kinks on using analysis software. Additionally, they are addressing disease control (e.g., WNS) and cave management with respect to bats in their Resource Management Plan.



Bill Doering's (POWER Engineers, Inc.) study of tree bat migration movements and cave stopover habitat use on the Snake River Plain continues for a second year. Bill has begun coordinating with resource agency biologists to expand this important research.

Rita Dixon (Idaho Department of Fish and Game [IDFG]), in cooperation with the Idaho Bureau of Land Management's (BLM) Abandoned Mine Lands (AML) Program continued her statewide bats and mines project this summer in the Elk City area of

north-central Idaho and Lava Hot Springs area of southeast Idaho. Prior to this summer, the focus had been to evaluate abandoned mines for their use by bats using external survey methods. This year, to gain insights into the subterranean features of the mines, Rita was joined by Idaho BLM's new AML Program Lead Mike Browne, BLM AML staff Phil Barbarick and CT Seaberg, and Jim Kennedy (BCI) to expand the work to include internal surveys. Because of the safety issues associated with conducting internal surveys, IDFG Conservation Officers Larry Willmott, Scott Wright, and Tyler Peterson assisted by serving as surface attendants during underground surveys. These external and internal surveys will inform management decisions by BLM regarding appropriate abandoned mine closures. In addition, data on bat species



composition at these mines and distributional information will add to our existing knowledge of bats in Idaho.

Rita Dixon and Bruce Haak (IDFG) conducted a pilot project this summer funded by the Boise National Forest to develop a sound catalog of calls emitted from positively identified bat species recorded in the Boise National Forest. We used both AnaBat and Pettersson bat detectors to record calls, and mist netted in a variety of habitats including sagebrush (*Artemisia* spp.) shrub-steppe, riparian, beaver pond, ponderosa pine (*Pinus ponderosa*) and mixed-coniferous forests. Captures included hoary bat, silver-haired bat, big brown bat, western small-footed myotis, little brown myotis, and long-legged myotis. Once acoustical analysis is completed, these reference calls will be available on the Web.



## Nevada

*Jenni Jeffers, Nevada Department of Wildlife*

### Forest Roosting Bats in Cottonwood along the Carson River in Nevada

After repeated acoustic surveys were done along the Carson River during the same time of the year, a pattern emerged from a large number of calls from three different species including little brown myotis. This area was chosen for the annual Bat Blitz from August 30 to September 3 in north-central Nevada. The main goal was to capture bat species in an intact cottonwood gallery along the Carson River and use radio-telemetry to locate roosts and collect night activity data.

Mist nets were setup in the river bed and 14 bats were captured representing six species. Some bats captured were too small to carry these transmitters such as western small-footed and California myotis. However, three little browns and one western red bat were fixed with transmitters and tracked for nine to twelve nights. The single female little brown was tracked back to a maternity roost in a large willow tree. Roosts were identified for male little browns in cottonwood. The single male western red bat was recorded using multiple cottonwood roosts over a twelve day period. In addition to day roosts, night activities including foraging distances and habitat were recorded for these two species during a nine to twelve night period. This study proved to be important in the identification of roosts and the use of cottonwood galleries by these two species in Nevada.





## New Mexico

*Jennifer Foote and Larry Cordova*

The New Mexico Bat Working group had its semi-annual meeting in November. Jennifer Foote and Mark Hakkila will be new co-chairs for 2011. On November 8, the New Mexico Interagency WNS Response Plan was issued. Federal land management agencies, along with the state and federal Fish and Wildlife agencies in New Mexico are working together to develop a coordinated and consistent approach to prevent and contain the spread of WNS and to inform the public of the actions they can take to assist in this effort.

On September 28 and 29 of 2010, the Lincoln National Forest and Bat Conservation International hosted a Wetland and Pond Construction Workshop on the Smokey Bear Ranger District. Three spring-fed wetlands were created and one existing pond was restored within Littleton Canyon. A visit to the area one month later showed that the project is already receiving high wildlife use.

## South Dakota

*Bradley J. Phillips*

**The 2010 South Dakota Bat Working Group (SDBWG) Bat Festival was successful again this year!**

The 5th Annual SDBWG Bat Festival was held on August 14, 2010 at the Tatanka Theatre at Custer State Park in the southern Black Hills. Despite the cool temperature, this year's festival had a record attendance of around 200 people! Biologists and other bat enthusiasts spent the evening discussing bats and bat-related topics. Some of the bats roosting in the Tatanka Theatre made their appearance by flying around inside the theatre allowing festival-goers to hear real-time echolocation on ultrasonic detectors.

### **Bat Books for Schools**

The SDBWG Bat Books for Schools Program received a competitive grant award through the SD Department of Game, Fish, and Parks Wildlife Diversity Program. The funding will enable the purchase of an additional 58 book-sets for public elementary school libraries across South Dakota. So far the program has placed these 12 volume bat book sets in 101 schools across the state. Go to our website [www.sdbwg.org/](http://www.sdbwg.org/) for more information.

**NOTE:** Caves in the Black Hills (National Forest) of South Dakota are now closed to recreational caving. In an attempt to slow the spread of WNS, the USFS Rocky Mountain Region (R2) has closed caves to the public.



## Washington

*Ron Zuber*

### **Bat Conservation and WNS Signs**

There are trade-offs in the decision to install signs in caves. The caves are altered and a cave visitor's experience is affected. The intended goal is to satisfy the need and desire to educate people and possibly help stop or at least slow the spread of WNS. Members of the Cascade Grotto, Washington Bat Group and the Washington Department of Fish and Wildlife sponsored and assisted with the production of temporary educational signs to be posted near cave entrances or on cave entrance walls. The decision was not based entirely on hard scientific findings and scientific community concurrence, but rather on best practices based on current knowledge and the perceived need to do something that has possible positive consequences. Values were considered and judgments made. Many aspects of this issue elicit differing opinions.

It's a fact that large numbers of bats are dying in the United States. WNS is a reality and its range is spreading, most likely bat to bat but humans may be able to relocate the associated fungus. What's at stake? The loss of species? Maybe, or the potential significant disruption of an entire order: Chiroptera.

Cascade Grotto and Bats Northwest members were among the 125 people who volunteered to do something for our national forest. We participated in the Mount Saint Helens Institute's National Public Lands Day, Saturday, September 25, 2010. Culverts were cleared, trails were maintained, trash was cleaned up, bat information was offered and informational signs were installed. The purpose of the signs is to help educate the public and cave visitors about bats, WNS, and the currently accepted cave visitation protocol.

The weather was just about perfect. It was a blue sky and warm fall day as we started our day with a general bat presentation by Bats Northwest bat expert Dr. John Bassett, with assistance from Cascade Grotto members Edd Keudell, Chris Anderson, and Ron Zuber. We were joined by Ella Rowan, Washington Department of Fish and Wildlife, and Mitch Wainwright, Gifford Pinchot National Forest, at the entrance to Ape Cave where the presentation was made. Bat natural history and WNS were explained with group participation and questions and answers following. We were also joined by a recognizable celebrity, none other than Smokey the Bear. Smokey, one of my boyhood heroes, welcomed us and expressed appreciation for our conservation efforts. I must admit that it is always an exciting pleasure to see Smokey in person. For fun, educational, and historic information, see the interactive site [www.smokeybear.com](http://www.smokeybear.com).

After our presentation, Anderson, Bassett, Keudell, and Zuber departed for the Lava Flow to install the informational signs. This was our first time installing these signs and although we had a good plan and excellent equipment we still learned some things that will make future installations more efficient and faster.

The first sign was installed on a post at the beginning of the paved trail that leads to Ape Cave. Ape Cave is a 12,810 foot lava tube, one of the longest in the nation, and one of the most popular visitor attractions at Mount St. Helens. The second was installed on the large, permanent information sign next to the outhouse at the Trail of Two Forests parking lot. This place also sees heavy visitation. The popular Lake Cave and others are not far down the trail. These two sites were selected because of the opportunity to expose large numbers of people to the information.



The first cave to get a sign was Little Red River Cave. The sign was installed on the cave wall to the right of the gate about four feet above the ground. Spider Cave also received a sign, installed on the left side wall as one enters the cave about 4 feet above the floor. It should be noted that a single bat, a Townsend's big-eared, was observed hanging from the Little Red River Cave ceiling about 10-feet past the gate, and a single bat was seen flying into the cave as we entered Spider Cave.

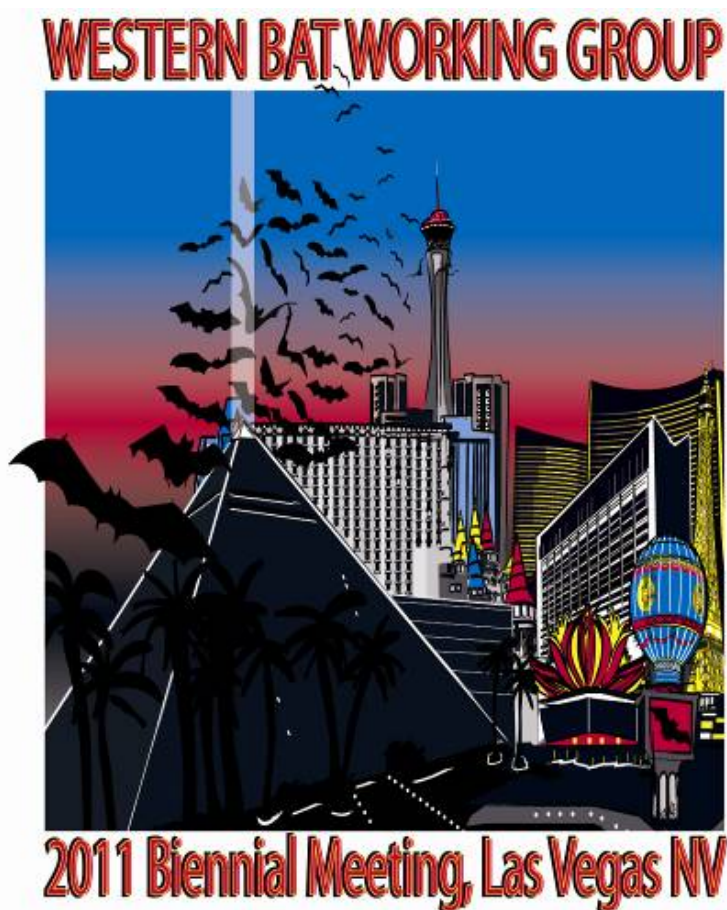
Careful consideration is being given to sign placement. With each sign, there is a disruption of the cave aesthetics and the visitor's experience. Our goal is to cause the least negative impact to each. These bat conservation signs are being installed following the method originally conceived, tested, and implemented throughout many USFS districts by fellow caver and retired USFS recreation planner Jim Nieland.

Future sign installation trips will be announced; cavers and others are invited to join the effort. An attempt will be made to complete installations at Mount Saint Helens this year. The Trout Lake area and other locations will be the focus of attention after snow melt next spring.



**Bat conservation sign installation crew. Kneeling: Ella Rowan. Standing from left: Ron Zuber, Edd Keudell, Chris Anderson, Dr. John Bassett. Photo by Ron Zuber.**





**April 3-6, 2011 Western Bat Working Group Biennial Meeting  
April 6-8, 2011 Bats and Wind Energy Workshop**

The Western Bat Working Group is pleased to bring you the 2011 Western Bat Working Group Biennial Meeting and Bats and Wind Energy Workshop at the Green Valley Ranch Resort, Spa and Casino in Las Vegas, Nevada.

The WBWG Biennial Meeting will be held April 3-6, 2011 beginning with an opening reception on Sunday evening and concluding with a half-day workshop on Wednesday, April 6. The Bats and Wind Energy Workshop will begin on Wednesday afternoon, April 6 immediately following the WBWG Biennial Meeting, and conclude Friday, April 8.

The combined conference will feature 5 days of contributed scientific papers, posters, invited speakers, a workshop, and special activities. Abstracts are due by January 7, 2011. All conference activities, including the opening reception, workshop, paper and poster sessions, business meeting, and banquet will take place at the Green Valley Ranch Resort, Spa and Casino. On Thursday, April 7, a special evening event during the Bats and Wind Energy Workshop (including a nocturnal equipment demo and catered BBQ dinner) will be held off-site at Spring Mountain Ranch State Park.

Please see our website at <http://www.wbwg.org/> for the abstract submission format. A more detailed circular of information will be available soon as well as online registration and additional details on the meeting. We hope to see you in Las Vegas!





## WHITE-NOSE SYNDROME UPDATES

### DRAFT U.S. WNS NATIONAL PLAN RELEASED

The U.S. Fish and Wildlife Service is requesting comments on its draft national plan to combat WNS. The deadline for comments is December 26, 2010. You can download the plan at <http://www.fws.gov/whitenosesyndrome/index.html>.

### FISH AND WILDLIFE SERVICE AWARDS WNS GRANTS

*From the October 6, 2010 U.S. Fish and Wildlife Service Press Release:*

The U.S. Fish and Wildlife Service (Service) announced six grant awards totalling approximately \$1.6 million to investigate the cause of white-nose syndrome (WNS) in bats and to identify ways to manage it. White-nose syndrome has killed more than a million bats in eastern North America and has spread rapidly across the United States and into Canada since its discovery in 2007.

"Bats are essential components of our nation's ecosystem," said Acting Service Director Rowan Gould. "These grants provide critical funding to help the Service and our partners understand white-nose syndrome and address this unprecedented wildlife crisis."

The Service is leading a cooperative effort with federal and state agencies, researchers, universities and other non-government organizations to research and manage the spread of WNS. Grants were provided through the Preventing Extinction program and a congressional appropriation for WNS work. The Service selected recipients from among 36 grant proposals totaling almost \$10.6 million.

"I am pleased that the Service is able to continue to fund research that is critical to the management of white-nose syndrome," says Jeremy Coleman, Ph.D., the Service's national white-nose syndrome coordinator. "These projects will help us answer critical questions about how to manage this devastating disease."

Funded projects include detailed studies of *Geomyces destructans*, the fungus associated with WNS; improving WNS detection techniques; developing a better understanding of how WNS is transmitted; determining the mechanics of *G. destructans* infections in bats, including the susceptibility and resistance of bats to the infection; and determining how persistent the fungus is in the environment.

The *G. destructans* fungus has been detected from Canada south to Tennessee and as far west as Oklahoma, and it is expected to continue to spread. Four endangered species and subspecies of bats in the United States are already affected by or are at risk from WNS. The Endangered Species Act protects six bat species in the contiguous United States.

Additional information about WNS may be found at <http://www.fws.gov/whitenosesyndrome/>.

The U.S. Fish and Wildlife Service works with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. We are both a leader and a trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals, and commitment to public service. For more information about our work and the people who make it happen, visit <http://www.fws.gov>.



## NEW WNS PUBLICATIONS

Courtin F., W. B. Stone, G. Risatti, K. Gilbert and H. J. Van Kruiningen. 2010. Pathologic findings and liver elements in hibernating bats with white-nose syndrome. Veterinary Pathology online doi:10.1177/0300985809358614

<http://files.wns2010.webnode.cz/200000003-8156882500/WNSVet%20Pathol-2010-Courtin-0300985809358614.pdf>

Cryan, P.M. Cryan, C.U. Meteyer, J.G. Boyles, and D.S. Blehert. 2010. Wing pathology of white-nose syndrome in bats suggests life-threatening disruption of physiology. BMC Biology (Opinion) 8:135.

<http://www.biomedcentral.com/content/pdf/1741-7007-8-135.pdf>

## UPDATED WNS MATERIALS

**Updated WNS Materials on WBWG website found at** <http://www.wbwg.org/>

- Outreach materials (brochure and sign)
- Bat Grid Inventory and Monitoring WNS Protocol
- U.S. Fish and Wildlife Service Decontamination Protocol for Researchers
- WNS Human Transmission Poster

## WBWG ELECTIONS

*Derek B. Hall, Elections Chair*

It is time again for WBWG members to vote for new Officers including President, Vice President, Secretary, Treasurer and two at-large representatives. You will be receiving a ballot from your state/provincial representative sometime in late November or early December. Please cast your vote and send it back to your state/provincial representative. Each representative will then tally the votes and submit one complete ballot for their state or province to the Elections Committee Chair based on the majority of votes received from their members. Biosketches for each candidate will be available on the WBWG website and attached to your ballot. Election results will be available around the first part of 2011. Good luck to all the candidates! We are truly grateful for their willingness to run for Office to ensure the continued success of WBWG!

## UPCOMING WORKSHOPS

### **AnalookW Analysis Workshop**

The first workshop of its kind was held in Las Vegas, October 2010. The next one is in California (Sacramento/San Francisco area) on January 17-20, 2011. An eastern workshop will be held in Ohio in February. Topics include: scans, filters, count labels, anahead, autoID, data and file management, pivot tables and data summary, use of call parameters, and more.

*Prerequisites:* a basic knowledge of AnalookW and bat species identification.

For more information or to register, contact Kim at [Kim.Livengood@gmail.com](mailto:Kim.Livengood@gmail.com) or Cori at [info@batsRus.ca](mailto:info@batsRus.ca). Workshop updates: [www.batsRus.ca](http://www.batsRus.ca).



## PDF CORNER

The PDF Corner lists recent open-access publications that may be of interest to WBWG members. If you come across a full-text on-line publication that you think should be listed here, please send the link to [lorraine.Andrusiak@keystonewildlife.com](mailto:lorraine.Andrusiak@keystonewildlife.com).

Angelo, S. 2009. Determinant Factors of Summer Roost Selection for Cave Bats (*Myotis velifer*) in Central Texas. M. Sc. Thesis, Antioch University New England. <http://sangelo.weebly.com/uploads/1/9/4/1/1941188/thesisfinaldraft.pdf>

Britzke, Eric R., Brooke A. Slack, Mike P. Armstrong, and Susan C. Loeb. 2010. Effects of orientation and weatherproofing on the detection of bat echolocation calls. Journal of Fish and Wildlife Management. In-Press. <http://www.fwspubs.org/doi/pdf/10.3996/072010-JFWM-025>

Frick, W. F., Reynolds, D. S. and Kunz, T. H. 2010. Influence of climate and reproductive timing on demography of little brown myotis *Myotis lucifugus*. Journal of Animal Ecology 79:128-136. [http://people.ucsc.edu/~cwilmers/ENVS220/Frick\\_et\\_al\\_JAE2010.pdf](http://people.ucsc.edu/~cwilmers/ENVS220/Frick_et_al_JAE2010.pdf)

Johnson, Joshua B., W. Mark Ford, Jane L. Rodrigue, John W. Edwards, and Catherine M. Johnson. 2010. Roost selection by male Indiana myotis following forest fires in central Appalachian hardwoods forests. Journal of Fish and Wildlife Management. In-Press. <http://www.fwspubs.org/doi/pdf/10.3996/042010-JFWM-007>

Matheson, Amanda L., Kevin L. Campbell and Craig K. R. Willis. 2010. Feasting, fasting and freezing: energetic effects of meal size and temperature on torpor expression by little brown bats *Myotis lucifugus*. Journal of Experimental Biology 213:2165-2173. [http://ion.uwinnipeg.ca/~cwillis/pdfs/Matheson\\_et\\_al\\_2010\\_feasting\\_fasting\\_freezing.pdf](http://ion.uwinnipeg.ca/~cwillis/pdfs/Matheson_et_al_2010_feasting_fasting_freezing.pdf)

McCain, C. M. 2007. Could temperature and water availability drive elevational species richness patterns? A global case study for bats. Global Ecology and Biogeography 16:1-13. <http://patagonia.byu.edu/Education/workshops/2008/McCainGEB.pdf>

McCracken, Gary F., Erin H. Gillam, John K. Westbrook, Ya-Fu Lee, Michael L. Jensen and Ben B. Balsley. 2010. Brazilian free-tailed bats (*Tadarida brasiliensis*: Molossidae, Chiroptera) at high altitude: links to migratory insect populations. Integrative and Comparative Biology 48(1):107-114. <http://icb.oxfordjournals.org/content/48/1/107>

Rodhouse, Thomas J., Maureen F. McCaffrey, and R. Gerald Wright. 2005 Distribution, foraging behavior, and capture results of the spotted bat (*Euderma maculatum*) in central Oregon. Western North American Naturalist 65(2):215-222. [http://science.nature.nps.gov/im/units/ucbn/docs/OtherDocs/Articles/Bats\\_WNAN\\_Rodhouse\\_2005.pdf](http://science.nature.nps.gov/im/units/ucbn/docs/OtherDocs/Articles/Bats_WNAN_Rodhouse_2005.pdf)

Srinivasulu, C., P. A. Racey and S. Mistry. 2010. A key to the bats (Mammalia: Chiroptera) of South Asia. Journal of Threatened Taxa 2(7):1001-1076. <http://threatenedtaxa.org/ZooPrintJournal/2010/July/o235205vii101001-1076.pdf>

Timpone, John, Justin G. Boyles, Kevin I. Murray, Doug P. Aubrey and Lynn W. Robbins. 2010. Overlap in roosting habits of Indiana bats (*Myotis sodalis*) and northern bats (*Myotis septentrionalis*). American Midland Naturalist 163:116-123. <http://daubrey.myweb.uga.edu/Timpone%20et%20al.%202010.pdf>



## UPCOMING EVENTS

### CANADA

August 14-19, 2011. International Wildlife Disease Association Conference. Quebec City, Quebec, Canada.

<http://www.wildlifedisease.org/meetings.htm>

### USA

April 3-6, 2011. Western Bat Working Group Biennial Conference, Las Vegas, NV.

<http://www.wbwg.org/business/biennialmeetings/meetings.html>

### NORWAY

May 2-5, 2011. Conference on Wind Energy and Wildlife Impacts. Trondheim, Norway

Website: <http://www.cww2011.nina.no/>



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