



WBWG NEWS

Volume 8, Number 1

Summer 2013



Large Yuma myotis (*Myotis yumanensis*) colony in the Kootenays of British Columbia – photo by Juliet Craig



WESTERN BAT WORKING GROUP NEWSLETTER

Summer 2013 Volume 8, Number 1

WBWG News	4
President's corner	4
ELECTIONS	6
STATE/PROVINCIAL UPDATES	6
CANADA	
Canadian WNS Interagency Committee – Update	6
British Columbia	
Kootenay Community Bat Project	
Bat counting in British Columbia: Looking for volunteers for roost counts	
USA	
Alaska	
Autumn acoustic surveys for little brown bats along Turnagain Arm in So	
Alaska The Alaska Bat Monitoring Project reports results from its first nine years	
Southeast Alaska Bat Project	
Other Alaska Bat News	
The USGS Bat Population Data (BPD) Project & Developing a North Am	_
Monitoring Program (NABat)	
Oklahoma	
Texas	
Utah	
Washington	
Washington State Bat Conservation Plan	
WDFW White-nose Syndrome Related Activities	
ANNOUNCEMENTS WAMI and BatAMP	
PDF CORNER UPCOMING EVENTS	
Canada	
USA	
Elsewhere	
THE VINTAGE BAT	15

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 13 western States, the Provinces of British Columbia and Alberta, 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 web page http://wbwg.org to contact us, find information on bat conservation and upcoming meetings, become a member, link to state or provincial bat working groups, or download previous issues of this newsletter.

President Angie McIntire
Vice President Laura Ellison
Treasurer Brad Phillips
Secretary Becky Abel

At-large representatives: Amie Shovlain, Roger Rodriguez Presidential appointees: Rob Schorr, Dave Johnston

Newsletter Editors: Lorraine Andrusiak, Bronwyn Hogan



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

Common Name Scientific Name

Arizona myotis Myotis occultus Big brown bat Eptesicus fuscus Myotis velifer Cave myotis Eastern red bat Lasiurus borealis Myotis thysanodes Fringed myotis Hoary bat Lasiurus cinereus Little brown myotis Myotis lucifugus Long-eared myotis Myotis evotis Long-legged myotis Myotis volans

Brazilian free-tailed bat Tadarida brasilensis
Northern myotis Myotis septentrionalis
Pallid bat Antrozous pallidus

Pocketed free-tailed bat Nyctinomops femorosaccus Silver-haired bat Lasionycterus noctivagans

Southwestern myotis Myotis auriculus

Townsend's big-eared bat Corynorhinus townsendii

Western small-footed myotis

Yuma myotis

Myotis ciliolabrum

Myotis yumanensis



WBWG NEWS

Discover bat migration and movement patterns across Western North America! WAMI and BatAMP

Cori Lausen, Wildlife Conservation Society Canada, clausen@wcs.org
The Western Acoustic Monitoring Initiative (WAMI) is network of folks doing long-term acoustic monitoring of bats in western North America. This initiative started as a collaborative effort between Western Bat Working Group and USFWS, and has now flourished to include USFS and Conservation Biology Data Basin.

As some background, this past winter, Ted Weller of USFS in California and WAMI joined forces: WAMI needed a database for all acoustic bat records in the west to start to piece together movement and migration patterns; turned out Ted had a database that did that, but was looking for people with data to populate it! So it was a win-win for all. In addition to a number of conference calls, we had our first face to face meeting in Santa Fe, NM in conjunction with the WBWG meeting.

The database is central repository for acoustic data (not the files, just the summarized species and species-groups data), which can be visualized over time using a graphical mapping interface. Finally! ... we now have a hope of being able to elucidate seasonal patterns of species presence at the largest spatial scales, larger than radiotelemetry will allow, and more refined than through use of isotopes.

This database is designed and housed by Conservation Biology Institute. Called Data Basin, this central repository will provide all users (anyone can sign up) with a platform for storage of acoustic datasets that can be visualized over large time and spatial scales. You can -- and we highly encourage you to – allow your data to be

shared with the data portal called *BatAMP* – Bat Acoustic Monitoring Portal.

Any data shared with BatAMP within Data Basin can be viewed by all other users. In this way you can control how much of your data gets shared and to what extent (e.g. waypoint buffers will be allowed, etc.). For folks who are trying to look for the 'bigger picture,' such as industry trying to locate a wind development area that could avoid major bat migration routes, or bat biologists trying to figure out where their little brown bats may be moving to for the winter, BatAMP may provide that answer. We need enough folks from across the West to submit data; this could be a highly effective tool with enough users and contributors.

To join the WAMI group and be notified of when you can enter data into Data Basin to start exploring your regional bat movement patterns, either: email Karen Blejwas (Karen.blejwas@alaska.gov) or obtain the sign-up sheet from this link. https://dl.dropboxusercontent.com/u/88490728/Western%20Acoustic%20Monitoring%20Sign%20Up%20and%20Info.xlsx

PRESIDENT'S CORNER

Summer is here and with it, another field season full of bat blitzes, acoustic monitoring, abandoned mine surveys, radio tracking - it will be so nice to get out of the office!

Our April 2013 biennial meeting in Santa Fe, New Mexico, was a big success. What a terrific city for a meeting! The hospitality of the staff at the Inn and Spa at Loretto was top-notch and the local attractions and food, spectacular. I've been craving prickly pear margaritas ever since! I want to express a big thank you to all who contributed time and effort to the meeting. Also, a special thanks to our excellent facilitator, Michael Fraidenburg, and his co-facilitators: Lloyd Tommila, Leland Pierce, and Derek Hall, and to Geoff Hammerson of NatureServe



for providing expertise before and during the meeting.

We all worked hard in Santa Fe and for many months prior. As most of you know, the WBWG has been working on a Conservation Assessment for Western Bat Species over the last two years and Santa Fe was our opportunity to peer review and discuss the initial assessment. Once completed, the Conservation Assessment will provide states, provinces, federal land management agencies, and others with information on overall status of western bat species. The original Western Bat Species Matrix was developed at a workshop in Reno, Nevada in 1998. One goal in updating the Reno Species Matrix was to develop a framework to support consistent and systematic assessment of bat species vulnerability into the future. To do that, we opted to use a rigorous process and NatureServe's rank calculator. We adopted the same threats scoring method developed (International Union **IUCN** Conservation of Nature) and used by NatureServe. Biologists across the west contributed information on threat impact, population size and range extent for bat species in their state. State and regional team leads compiled information by region and assimilated into nine Landscape Conservation Cooperatives (LCCs. ecologically-based conservation regions). The resulting assessment framework can be duplicated in other regions. I'm excited to think of how this framework will stand up over time and support efforts to update and refine species conservation status into the future. This was the first step toward prioritizing conservation actions for bats in the West and so many partners collaborated on this effort (western state and federal wildlife agencies, including Alaska and British Columbia, Natural Heritage NatureServe. Landscape Programs, Conservation Cooperatives, and USGS National Gap Analysis Program). I'm so proud of the way we all came together to work on this project and everyone's attention and hard work in Santa Fe.



In addition to our work in break out groups on the threats assessment, one of my favorite parts of the meeting was the species range map update. It was gratifying to watch all the interaction and exchange as everyone gathered around species range maps to discuss and make changes. That was the type of information sharing that meeting organizers had envisioned would be one of the best parts of a working meeting.



If you've been to a WBWG meeting, you know one of the highlights is the auction. The Santa Fe meeting auction did not disappoint. So many great items were donated and the beer and cash were flowing. What a great time we all had! Toni Piaggio and Dan Taylor, auctioneers-extraordinaire, were on fire!

There are a lot of individuals and organizations to thank for their part in the meeting. I'm especially grateful for the generous contributions of meeting sponsors: Alaska Department of Fish and Game, Arizona Game and Fish Department, Bat Conservation International, Bats Northwest, Binary Acoustic Technology, Frontier Environmental Solutions, Inc., Idaho Department of Fish and Game,



Montana Wildlife and Parks, National Speleological Society, Nevada Department of Wildlife, and West, Inc. Also, Jennifer Foote, Marikay Ramsey, James Stuart, and Mark Hakkila were instrumental as the local organizing team.

The biennial meeting was also the official "changing of the guard." Congratulations and a heartfelt thank you to incoming officers for your willingness to serve: Laura Ellison (Vice President), Becky Abel (Secretary), Brad Phillips (Treasurer), Amie Shovlain and Roger Rodriguez (At Large), and Rob Schorr and Dave Johnston (Presidential Appointees). I look forward to working with you in the next term.

It's an honor to serve a group who shares a common passion for bat conservation. I hope everyone has a safe and productive field season.

Sincerely,

Angie McIntire
President

ELECTIONS

Results

Angie McIntire (President)
Laura Ellison (Vice President)
Becky Abel (Secretary)
Brad Phillips (Treasurer)
Amie Shovlain (At Large)
Roger Rodriguez (At Large)
Rob Schorr (Presidential Appointee)
Dave Johnston (Presidential Appointees)



STATE/PROVINCIAL UPDATES

CANADA

Canadian WNS Interagency Committee – Update

Cori Lausen, Wildlife Conservation Society Canada, <u>clausen@wcs.org</u>

The WNS Interagency Committee continuing to have regular conference calls, mainly as small working groups. There are 5 technical working groups: Bat Population Monitoring, Surveillance and Diagnostics, WNS Mitigation, Communication Outreach, and Data Management. On a short term CWS contract, Christina Davy worked to compile information about bat databases in Canada, as a start to understanding what information is located where nation-wide. Federal Environment Minister Peter Kent announced this past spring a contribution of \$300,000 spread over 4 years to hire a WNS Coordinator, who will be housed in the CCWHC (Canadian Cooperative Wildlife Health Centre) likely in Ontario.

British Columbia

Kootenay Community Bat Project
Submitted by Juliet Craig,
iulietcraig@uniserve.com

The Kootenay Community Bat Project is continuing its fifth year (2004-06; 2012) in southeastern BC. Funded by the Columbia Basin Trust and the Public Conservation Trust Fund, the KCBP promotes education and awareness of bats, identifies bat roost sites (particularly on private land), assists landowners with roost conservation planning, and involves community members in monitoring bat populations. Extension activities planned for this year include press releases, bat-house building workshops,



school programs, interpretive programs and a display booth at community events. Educators who were trained last year will continue to provide school programs.

The project also includes roost surveys. Residents are encouraged to report their bats so that project biologists can visit their roost sites, identify species present, and discuss and address their issues. As well, we provide strategies to conserve and enhance roosts, and encourage residents to monitor their bat populations. We are continuing the Annual Bat Count this year to encourage residents to count bats as they emerge from a roost site. We will be continuing DNA sampling of guano (as well as acoustic sampling at roost sites with an detector) EM3 to confirm species identification. We have also formed a partnership with the BC Government for testing for *Histoplasma* capsulatum in collected quano to assess the risk of histoplasmosis in the Kootenays. We have a new toll-free phone number this year (1-855-9BC-BATS) to encourage reporting of roost sites.

Finally, we are continuing our Building Homes for Bats initiative where we reimburse the cost of materials for residents to build and install two bat-houses (through funding from the Public Conservation Assistance Fund) and in return, the resident commits to monitoring the bat-houses during the Annual Bat Count. In light of WNS and the increased need for bat conservation of little brown bats and other common species, we are beginning the KCBP again in 2012. We are promoting a "BC Bat Count" where residents with roosts on their property conduct an emergence count during 4 evenings of the summer two pre-pup and two post-pup. We are also encouraging residents to test bat-house designs by installing at least two bat-houses and monitoring occupancy. To find out more, please see www.kootenaybats.com Juliet Craig or email kootenavbats@gmail.com.

~ submitted by Juliet Craig

Bat counting in British Columbia: Looking for volunteers for roost counts

As the threat of White Nose Syndrome looms large, we realize we are deficient in even basic bat population size and information across abundance British Columbia. While community bat projects are doing their part in filling in the knowledge gap, individuals can also participate on their own. We are encouraging volunteers around the province to commit to one or two roost sites in their region to conduct a Bat Count using the protocol developed by the Kootenav Community Bat project (http://www.kootenaybats.com/getinvolved/participate-in-bc-bat-count).

The protocol is very simple and only requires commitment of a few hours (an hour of actual counting time plus travel) on two evenings between June 1st and 30th and again between July 21st and August 15th. Last year the Kootenay Community Bat Project completed 18 counts. Could we hope for a similar representation from the rest of the province? It is up to YOU!!!

If you are interested in pledging to an annual bat count, please contact either Purnima or Juliet – contact information below.

Purnima Govindarajulu
Purnima.Govindarajulu
@gov.bc.ca
250 387 9755

Juliet Craig kootenaybats@g mail.com 1-855-9BC-BATS





USA

Alaska

Autumn acoustic surveys for little brown bats along Turnagain Arm in South-central Alaska.

David F. Tessler, Marian L. Snively, Jessica K Ilse, Doug Causey, Matthew O'Dell, Misty Dzierzynski, Brittany Hansen

Biologists David Tessler and Marian Snively (Alaska Deptartment of Fish and Game) and Jessica Ilse (Chugach National Forest) partnered with students at University of Alaska Anchorage to investigate the seasonal disappearance of little brown bats in South-central Alaska. Three students in undergraduate/graduate "Exploration Ecology," taught by Doug Causey, worked together with the biologists to deploy AnaBat and Wildlife Acoustics ultrasonic detectors at eight sites along Turnagin Arm, stretching from south Anchorage to Portage Valley. Tessler, Ilse, and Snively taught the students the basics of bat ecology and how to use the equipment to gather and process echolocation data. The detectors were deployed from 26 September through 24 November 2012 to quantify the time, number, and frequency of the bat calls. Students organized themselves to retrieve and replace recording cards and renew instrument batteries on a weekly basis. The last week of September had little bat activity at any of the sites, likely due to a strong early season winter storm that left 10cm of snow. Calling was detected at seven of the eight sites with most activity occurring in early October. Activity ranged from 19:00 to 07:00 with most calls recorded between 23:00 and 04:00. The last date calls were detected was 12 October. University of Alaska Anchorage, Alaska Department of Fish and Game, and Chugach National Forest plan to continue this collaboration in applied research education in 2013.

Contact: David F. Tessler, Alaska Department of Fish and Game, Wildlife Diversity Program, 333 Raspberry Road, Anchorage, AK 99518. Phone: (907) 267-2332; Email: david.tessler@alaska.gov

The Alaska Bat Monitoring Project reports results from its first nine years

David F. Tessler, Marian L. Snively, Tracey A. Gotthardt

We have submitted a manuscript to Northwestern Naturalist detailing the results of the first nine years of the Alaska Bat Monitoring Program. The manuscript is currently under review and what follows is the abstract. We initiated the citizen science based Alaska Bat Monitoring Project in 2004 to investigate the distribution, habitat use, and seasonal ecology of the Little Brown Bat in South-central, Interior, and Western Alaska. As of 2012, we received reports of bats from 252 unique locations across the focus area, including Kotzebue, White Mountain, Saint Michael, and the Semidi Islands, which represent significant range extensions for this species. Ninetyseven percent of 111 roosts were located in human structures. Maternity colonies were identified in 48 locations, all in human structures. The majority of observations were reported in late July, August, and September, but we received observations every month of the year. We received reports of bats in 25 unique locations during the winter period from October - April. Winter bats were all associated with buildings unless observed flying outdoors; no hibernacula in natural substrates were documented. Timing and locations of winter observations imply that bats in the most northerly areas are likely non-migratory and overwinter in human structures, while winter observations in South-central suggest both migratory and non-migratory behavior. Despite the bias inherent in the these reports represent dataset. significant contribution to our understanding of the distribution and ecology of the Little



Brown Bat in Alaska, and provide a basis for future directed research efforts.

Contact: David F. Tessler, Alaska Department of Fish and Game, Wildlife Diversity Program, 333 Raspberry Road, Anchorage, AK 99518. Phone: (907) 267-2332; Email: david.tessler@alaska.gov

Southeast Alaska Bat Project

Rhea-Fournier, Karen Bleiwas. Dylan Michael Kohan. Laura Beard, Grev Pendleton, and Jennifer McGrath ADF&G's Wildlife Diversity Program is continuing its acoustic monitoring project in Southeast Alaska. We have 12 detectors deployed year-round along the Juneau road and trail. Beginning in winter of 2011, we partnered with USFS, NPS, UAS, ADF&G fishery biologists, and local community organizations to expand the acoustic monitoring to 9 other communities and 3 transboundary river sites. We are also continuing our active surveys of Juneau trails. This summer we are also monitoring local maternity roosts in the Juneau area using emergence counts and bat detectors. In addition, we have been trapping and radiotagging female little brown bats in Juneau at regular intervals since early April. We are tracking the bats to their day roosts, monitoring roost attendance with telemetry dataloggers, and collecting information on foraging movements. Last fall successfully tracked 2 radiotagged little brown bats in real time as they began their fall migration, losing signals on both of them over Admiralty Island, due west of Juneau. We plan to repeat that effort this fall in hopes of tracking the bats all the way to their overwintering grounds.

Other Alaska Bat News

Wrangell-St. Elias National Park & Preserve continues its collaboration with Dr's Gary McCracken and Justin Boyles of the University of Tennessee for a second year of field work investigating bat populations. This year the focus will be primarily on the northern part of this 13 million acre Alaskan National Park. Bats will be captured.

measured, wing biopsies taken, and calls recorded for the statewide call library. We are still trying to determine the species in the park and determine basic life history including the foraging habits at such a high latitude.

-Submitted by Miranda Terwiliger, NPS

USFS staff on the Tongass and Chugach National Forests are currently responding to a FOIA request from Wildlife Acoustics for acoustic reference calls.

-Submitted by Cheryl Carrothers, USFS

Colorado

The USGS Bat Population Data (BPD) Project & Developing a North American Bat Monitoring Program (NABat)

In 1994, USGS scientists recognized that despite increasing concern for many species of bats known or believed to be declining, the data necessary to determine population status and trends were fragmented among agencies and organizations. So began the USGS Bat Population Data (BPD) Project, which has become a comprehensive effort to compile existing population information for bats in the United States and Territories. The project's initial product, the Bat Population Database (BPD v.1), compiled population data from 1855-2001, particularly counts of bats at colony locations, location attributes, and a complete bibliography of bat publications (published literature, theses and agency reports, and State agency files) for the U.S. and Territories.

In the years since completion of BPD v.1, North American bat populations have continued to decline. Of particular concern have been the precipitous declines of hibernating bats affected by white-nose syndrome (WNS), as well as the significant threat to migrating bats from increasing wind energy development. These combined threats have generated renewed interest for data suitable for bat population estimation and trend analysis. USGS scientists



responded to this need by upgrading, updating and extending the capabilities of BPD v.1 for better data management, accessibility and utility by USGS and data partners. The ultimate goal for this project is to provide a database framework for a North American Bat Monitoring Program (NABat). BPD v. 2 is now online and counts can be searched bγ species, state. bibliographic reference (https://my.usgs.gov/bpd/). The database will be updated this summer with counts of bats from 2001 to the present from bibliographic sources and state agency programs.

A group of scientists and statisticians from the U.S., Canada, and Mexico is developing North American the Bat Monitoring Program, a framework for bat monitoring across North America. NABat will provide the statistical, biological and administrative architecture for coordinated bat population monitoring that will promote effective decision-making and long-term viability of bat populations across the continent by providing robust data on changes in bat distributions and abundance. The sampling framework will be comprised of a nested grid consisting of 50 km cells as primary units, 10 km cells as secondary units, and 5 km cells as tertiary units; 1 km cells can be used for intensive research and local monitoring projects. A spatially balanced design will be used so that unequal and changing survey efforts can be accounted for in design-based and model-based population estimates of status and trend. The primary data sources will be maternity and hibernacula counts and acoustic data collected along driving transects or at stationary points across the landscape.

Oklahoma

Information submitted by: Melynda Hickman, Wildlife Diversity Biologist, OK Dept. of Wildlife Conservation. P O Box 53465, Oklahoma City, OK 73152, mhickman@zoo.odwc.state.ok.us, 405-990-4977.

The Oklahoma Bat Coordinating Team (OBCT) was established by the Oklahoma Wildlife Department of Conservation (ODWC) as an informal group that would create a communications plan to facilitate information flow to partners, scientific cooperators. interested parties. stakeholders and user groups on bat and cave management, bat research and bat diseases in Oklahoma. The coordinating team includes agencies, universities and organizations that have direct bat and cave responsibilities: management ODWC. USFWS - Ecological Services, USFWS -Ozark Plateau National Wildlife Refuge, OK Dept. of Tourism and Recreation (Alabaster Caverns State Park), University of Central Oklahoma (Selman Cave System). University of Science and Arts of Oklahoma, Rogers State University, Cherokee Nation, The Nature Conservancy, DOD - Ft. Sill, Central Oklahoma Grotto, and Tulsa Oklahoma Grotto.

One of the first projects of the OBCT was to provide bat identification aid to those who work directly with bats. Accurate identification will help provide better information about bat occurrence Oklahoma. We produced the "Bats of Oklahoma Field Guide", a small spiral bound book that has identification help for the 24 species/subspecies that have been documented in Oklahoma. Information includes a very good image, range map, total length, preferred daytime roost (outside hibernation/migration time). development period (period from birth to flight), "in hand" information to help further in identifying the bat species, and a cool fact about the species. The booklet was designed specifically for biologists, naturalists, rehabilitators, nuisance wildlife control operators and cave managers. We are in the process of distributing the booklets to the identified audience. For the general public a poster is about ready to go to the printers that provides more general information about bats and bats Oklahoma on one side and the reverse side has the bat species/subspecies pages from the booklet. Both of these publications are



free. Funding for both of these products came from the Ozark Plateau National Wildlife Refuge and the OK Wildlife Diversity Program.

Later this summer, the OBCT will be conducting a bat identification workshop, again for those identified as working directly with bats.





Texas

The first meeting of the newly resurrected Texas Bat Working Group was Thursday, 13, 2013 June in Austin. Participants were made up of individuals from the Texas Parks and Wildlife Department (TPWD), U.S. Fish and Wildlife Service, Department of State Health Services. universities, non-profit organizations, and private industry. It was a great success as we discussed the details of leadership, organization, and committee framework for the TXBWG and had productive discussions about the WNS Response and Surveillance Action Plan for TX. This meeting benefited from the hard work of Tara Poloskey and Jess Lucas of TPWD, who both organized and led the meeting. The following individuals volunteered to serve in leadership roles:

Chair - Leigh Stuemke, Texas Land Conservancy Co-Chair - Roger Rodriguez, Zotz Ecological Solutions, LLC TPWD Chair - Tara Poloskey Social Media/IT - Erin Adams, Angelo State University

Please like us on facebook at (https://www.facebook.com/pages/Texas-Bat-Working-Group-

TXBWG/563061010412723) and visit our website at

(http://TexasBatWorkingGroup.blogspot.co m/).

Also, we have established a listserv for qualified professionals who are members of the TXBWG or would like to receive updates from the group. We would like this listserv to remain professional as this will serve as a source for disseminating info about WNS and other bat conservation issues in the state to all stakeholders. For more info on the listserv, please contact Jess Lucas (Jess.Lucas@tpwd.texas.gov) or Erin Adams (eadams13@angelo.edu).

-Roger Rodriguez At-Large Representative, Western Bat Working Group

Utah

Contributors: Keith Day, Kimberley Hersey, Kevin Labrum, Tony Wright
Some field work took place in Utah from late autumn 2012 through early spring 2013. The work was limited, in line with available funding, and focused on hibernacula and getting a feel for what constitutes "normal" levels and patterns of bat activity during winter.



- Kevin Labrum of the USFS continued annual monitoring of Logan Cave and counted 283 Corynorhinus townsendii. Preclosure counts were 2 13 bats, while this year's count was the highest ever.
- In Southern Utah, UDWR monitored temperature and relative humidity in two gated mines, one gated lava tube, and one natural cavern, all known to have had past winter bat use. Conditions in the lava tube, the site with the most documented bat use of up to 80 Corynorhinus townsendii, were suitable for Geomyces destructans (20°-50° F, R.H. 60-100%).
- Cold season acoustic surveys in Utah's West Desert by UDWR indicated bat activity (possibly Myotis ciliolabrum) as early as early March.
- Periodic acoustic monitoring of six uranium mine portals southeastern Utah bγ UDWR documented no bat activity until a powerful cold air inversion began to break down in late January and temperatures approached freezing. A small amount of Corynorhinus townsendii activity occurred at that In March the number of recordings increased substantially including several Myotis species and Euderma maculatum. Temperature and relative humidity levels measured varied widely among several uranium mine. One mine interior had stable temperatures between 55° and 60° F with R.H. 55% to 70%. At the other extreme were mines in which conditions were very unstable and highly reflective of outside ambient conditions. surprisingly, mines appeared to vary greatly in use by and suitability for bats.

Washington

Washington State Bat Conservation Plan

Gerry Hayes and Gary Wiles, Washington Department of Fish and Wildlife

Washington Department of Fish and Wildlife has developed a draft Washington State Bat Conservation Plan. The plan gives an overview of bat biology, habitat requirements, relationships to public health,



legal and conservation status, conservation and management activities, and known or potential threats to bats. The plan also summarizes what is known of the historical and current distributions of the 15 bat species found Washington with in information on natural history conservation measures. It also outlines strategies and tasks needed to implement conservation and protection of bats in Washington.

WDFW White-nose Syndrome Related Activities

Ella Rowan, Washington Department of Fish and Wildlife

WDFW received grants over the past two years to carry out projects related to Whitenose Syndrome (WNS) of bats. We have performed numerous public lectures on bats and WNS; purchased extensive survey equipment; developed a winter acoustic monitoring project; written a Cave Safety Manual; carried out cave hibernacula surveys; received training from Bat Conservation International on safe and



appropriate cave hibernacula survey techniques; co-wrote an Interagency Pacific Northwest WNS Plan; participated in USFWS. WBWG and WA BWG meetings: **USFWS** participated in the Symposium and Western Association of Fish and Wildlife WNS meeting; updated colleagues on current WNS research and literature: established management WDFW WNS webpage; and continue to work on additional upcoming projects.

ANNOUNCEMENTS

WAMI and BatAMP

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To join the WAMI group and be notified of when you can enter data into Data Basin to start exploring your regional bat movement patterns, either: email Karen Blejwas (Karen.blejwas@alaska.gov) or obtain the sign-up sheet from this link. https://dl.dropboxusercontent.com/u/88490728/Western%20Acoustic%20Monitoring%20Sign%20Up%20and%20Info.xlsx





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.

Norquay, K.J.O., F. Martinez-Nunez, J.E. Dubois, K. Monson and C.K.R. Willis (2013) Long-distance movements of little brown bats (*Myotis lucifugus*). Journal of Mammalogy. doi: 10.1644/12-MAMM-A-065.1.

http://www.willisbatlab.org/uploads/8/0/0/6/8006 753/norquay_et_al._2013_-_longdistance_movements.pdf

Czenze, Z.J., A.D. Park and C.K.R.Willis (2013) Staying cold through dinner: Cold-climate bats rewarm with conspecifics but not sunset during hibernation. Journal of Comparative Physiology B. doi 10.1007/s00360-013-0753-4.

http://www.willisbatlab.org/uploads/8/0/0/6/8006 753/czenze_et_al._2013_cold_through_dinner.pdf

Iwanowicz, D.D; Iwanowicz, L. R.; Hitt, N. P.; King, T.L. 2013. Differential expression profiles of microRNA in the little brown bat (*Myotis lucifugus*) associated with white nose syndrome affected and unaffected individuals. USGS Open-File Report: 2013-1099. http://pubs.er.usgs.gov/publication/ofr20131099

Coleman JL, Barclay RMR (2011b) Influence of urbanization on demography of little brown bats (*Myotis lucifugus*) in the prairies of North America. PLoS One 6:e2048

http://dspace.ucalgary.ca/bitstream/1880/48794/ 1/Barclay_PLoSOne_2011.pdf

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UPCOMING EVENTS CANADA

Canadian Wind Energy Association Annual Conference. October 7-10, 2013, Toronto, ON. http://canwea2013.ca/

USA

The Wildlife Society. Annual Conference. Milwaukee, WI. Oct. 5-10, 2013. http://wildlifesociety.org/about/registration-rates/

ELSEWHERE

North American Symposium for Bat Research (NASBR) 43 and 16th International Bat Research Conference (IBRC), San Jose, Costa Rica. August 11-15, 2013

http://www.ibrc2013.com/index.php

American Wind Energy Association. WINDPOWER 2014. Las Vegas, NV, May 5 - 8. 2014.

http://www.windpowerexpo.org/registration/



International Conference on Wildlife Ecology, Rehabilitation and Conservation. Istanbul, Turkey
December 05-06, 2013.
http://www.waset.org/conferences/2013/istanbul/icwerc/

9th International Conference on Behaviour, Physiology and Genetics of Wildlife 2013. Sept. 18-21, 2013. University of Freiburg, Germany. http://www.wildlife.uni-freiburg.de/events-1/izw2013

THE VINTAGE BAT



FLITTER THE BAT. This is the Red Bat, also called Tree Bat.



THE LITTLE BROWN BAT. He is about to catch a fly on the surface of the water.