

Western Canada Bat Network Newsletter



Photo by Ian Routley

Issue No. 25 Autumn 2014

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Cover photo: Spotted bat captured in Lillooet, BC Aug 2014. Photo by Ian Routley, Lillooet, BC.

Updates by region

Alberta

Provincial update

Lisa Wilkinson, Species at Risk Biologist,
Alberta Environment and Sustainable Resource Development lisa.wilkinson@gov.ab.ca

Biologists in Alberta have been busy this summer. We embarked on the pilot year for acoustic monitoring, as part of the NABat initiative. We set up monitoring sites in every natural region in the province, and participants included provincial government, Parks Canada, consultants and stakeholders – thank you to everyone who participated. We will continue monitoring next year, and would like to identify maternity colonies and engage citizen scientists to monitor them. We are continuing to investigate potential hibernacula with roost loggers, including sites in Jasper National Park. A working group of biologists and cavers has drafted a Western Canada protocol for visiting caves; it has received positive feedback and will soon be available – great job by the team (Dave Hobson, Greg Horne, Katie Graham, Nicholas Vieira, Chas Yong, Susan Holroyd).

Monitoring bats in Wood Buffalo National Park

Sharon Irwin, Resource Management Officer
Wood Buffalo National Park

Some photos illustrating some of the challenges in accessing sites in Wood Buffalo NP:



Travel to sites in March 2014.



Accessing sinkhole (left) and setting up RoostLogger (right). Photos courtesy of Sharon Irwin.

British Columbia

Radiotracking Spotted Bats on the Northern Edge of their Range

C. Lausen, Wildlife Conservation Society Canada

We captured bats in Lillooet, BC this summer, focussing on spotted bats, a species that had been heard and recorded, but not captured in all previous bat inventory work in the area. We focussed our mistnet efforts in areas of highest acoustic activity of this species, and captured 7 spotted bats at a foraging site on a grassy sagebrush bench above the Fraser River, approximately 20 km north of Lillooet. We radiotracked 7 bats, both males and females, and located by helicopter, 4 rock crevice roosts high in the canyon wall of the Fraser River. Bats remained within a few kilometers of their roost most of the nights to forage, although a reproductive (scrotal) male was tracked only for one day before it left the study area and could not subsequently be located. This was the only adult male that we tracked; all other bats were either reproductive females or volant juveniles. Because so few bats of this species have ever been captured in BC, data that we collected on foraging and roosting have already added substantial information to the status review update that is currently being done for this species by the Committee on the Status of Endangered Wildlife in Canada. This new status report will be published at the end of this year. We also submitted genetic and hair samples for all 7 of these bats to Northern Arizona University in Flagstaff (Dr. Faith Walker and Dr. Carol Chamber). The genetic and isotopic results will also be included in the Canadian status report. Jared Hobbs of Hemmera Envirochem secured all of the funding from Fish and Wildlife Compensation Program Bridge Coastal, B.C. and was instrumental in field

assistance and logistics in the field. Valuable logistics and field assistance was also provided by Ian Routley and Vivian Birch-Jones of Lillooet, BC.

Canadian Flathead Bat BioBlitz

C. Lausen, Wildlife Conservation Society Canada

Eight sites were sampled for bats in the Flathead River Valley of SW BC 24 – 27 July 2014 using a combination of mistnetting and acoustic sampling. The previous year a similar blitz was held but weather was not overly conducive to bat capture. Weather was more cooperative in 2014, and we mistnet captured 7 species: *Eptesicus fuscus*, big brown bat, *Myotis lucifugus*, little brown myotis, *M. evotis*, long-eared myotis, *M. volans*, long-legged myotis and *M. californicus*, Californian myotis, *Lasionycteris noctivagans*, silver-haired bat, *Lasiurus cinereus*, hoary bat. The latter two had not been captured in the 2013 bat blitz. In 2014, thirty-one bats were captured over the course of 4 nights of netting, and 1049 bat passes were recorded. An additional three species were thought possible in this region based on bat diversity in SW Alberta and the Montana Flathead area: *Lasiurus borealis*, eastern red bat, which is found in Waterton Lakes National Park over the Continental Divide from the Flathead drainage, *Myotis yumanensis*, Yuma myotis, and *Myotis septentrionalis*, northern myotis, which has been found in the US Flathead drainage. Neither of the latter 2 species has been found to be common in the northern regions of the US Flathead drainage.



Long-legged myotis captured in Flathead. Photo by Cory Olson, Calgary, AB.

Acoustic recording suggested the possible occurrence of these 3 species in the Canadian Flathead, but if these species are present, they are in low densities and were thus not captured during the 8 nights of inventory (4 nights in each of 2013 and 2014). Of the 11 bat species thought to potentially occur in the Flathead, the only species not captured nor detected was *Corynorhinus townsendii*, Townsend's big-eared bat. This species is associated with talus slopes and rocky outcroppings, and this type of habitat was netted on only one of the 8 sampling nights (at Rose Canyon). This species has been found in the US Flathead. Thank you to the other biologists that came out to help mistnet bats: Cory Olson, Kent Russell, Lisa Simms, Aimee Mitchell, Chris Currie, Erin Rutherford, Leigh Anne Isaac, Maeve McAllister. Many others were instrumental in logistics and field assistance, and funding was provided by the

Flathead Wild Team: Wildsight, Yellowstone to Yukon Conservation Initiative, CPAWS BC, Sierra Club BC, National Parks Conservation Association, Headwaters Montana. 2014 report available: http://cpawsbc.org/upload/Lausen_Flathead_report_2014_Oct_26.pdf

A Year-round Source of Silver in BC Mines

C. Lausen, Wildlife Conservation Society Canada



A silverhaired bat roosting in mine in southern BC.

Several years ago I was surprised by the sheer number of silverhaired bats that I was capturing in BC mines of West Kootenay (just above the NE corner of Washington) during winter. I started banding these individuals and was astonished at the recaptures that I had between years, indicating these bats had high fidelity to the same mine each winter. For the past 2 years I have used temperature sensitive transmitters to document their winter hibernation patterns, and was surprised by how often they emerged to fly around for a few hours. I have captured males and females in mid-winter, clearly having just mated, at least one of the reasons for flying around. Their alternation between hibernating in trees/snags and mines/crevices, moving every week or two, was also an interesting aspect I learned about their winter ecology. But one of the most interesting things I learned to date regarding these tiny pieces of silver in our mines is that they are year-round residents. Through

banding records I have now found that the same individuals are captured flying in and out of these mines in both winter and summer. At least this is true of the males. I still have a lot of netting to do, and perhaps some isotope work, to figure out if females are doing the same, or if they are true to their migratory reputation and head north for summer. I am in Year 4 of 4 of my winter ecology research in southern BC and hope to be forthcoming with some publications within the next 2 years, one of which will certainly be about what our silverhaireds are doing. Thanks to my main funders: Habitat Conservation Trust Foundation of BC and Fish and Wildlife Compensation Program Columbia Basin and Waneta Dam Terrestrial Compensation Program.

Canyon Bat - A New Species for Canada

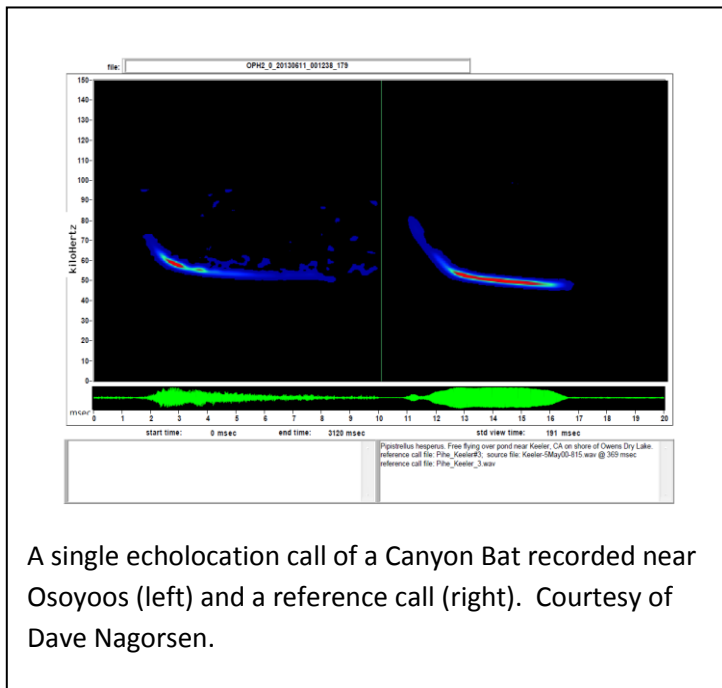
Mike Sarell

Until recently, the Canyon Bat (*Parastrellus hesperus*) was known to occur in the arid regions of Mexico and the western United States, as far north as the Okanogan Valley in eastern Washington State. The most northern colony was documented just 100 km south of the International Border.

The Canyon Bat is the smallest bat in North America and is a weak flyer, readily identified by its fluttery flight. This weak flight ability tends to make these bats inhabit canyons where they are buffered from winds while foraging. They roost individually or in small colonies within rock crevices, or sometimes under rocks on the ground.

Their small colonies can easily be overlooked by researchers. Another potentially confounding obstacle for Canadian researchers is that they look very similar to the Western Small-footed Myotis (*M. ciliolabrum*) and none of the keys in

British Columbia include the Canyon Bat so it would take some additional references or insight to acknowledge that the bat was not a known species of the area. So despite the relatively intensive bat research in the Okanogan Valley, it is not unreasonable that they could have been overlooked until now.



The Nature Conservancy of Canada (NCC) recently purchased a large series of properties west of Osoyoos in the Okanogan Valley along the International Boundary to contribute to the conservation of shrub-steppe habitat. One of their first goals was to conduct a biodiversity inventory with an emphasis

on documenting Species at Risk. As part of this process, SM2 bat detectors were deployed throughout the properties to obtain echolocation calls of bats in the area during the summer of 2013.

One detector in a small canyon that transects the International Border yielded acoustic results that appeared to be that of a Canyon Bat (see figure above). After the initial assessment of the recorded calls, one call sequence was forwarded to both Cori Lausen and David Nagorsen who were also of the opinion that it was from a Canyon Bat. Ultimately Chris Corben confirmed that the calls were indeed that of a Canyon Bat. Additional call sequences were recorded that could be Canyon Bat but none were

as distinctive as the one depicted. The BC Bat Working Group has recommended to the BC Conservation Data Centre that the Canyon Bat be listed as “Accidental” until further inventories prove otherwise.

Obviously more inventory effort is needed to establish the status of the Canyon Bat in Canada. The advances in acoustic inventory techniques of bats are enabling researchers to conduct more cost-effective bat surveys and over broader areas. One of the conclusions of this survey was that multiple nights were needed to obtain data for uncommon species. Acoustic data such as this will be invaluable in gauging the effects of WNS on local bat populations in the future.

Clayton Falls (Bella Coola) Bat Survey

Mandy Kellner (mandy.kellner@gmail.com) and Helen Davis

We surveyed the Clayton Falls watershed, a north-flowing, steep-walled valley located 4 km west of Bella Coola, to fill in knowledge gaps on bat distribution in this area. This valley has a small hydroelectric plant and work was funded by the BC Fish and Wildlife Conservation Program - Coastal. We found a diverse bat community living in the valley, with captures of 30 bats of five species (Yuma, Little Brown, Keen’s/Western Long-eared, Long-legged, and Silver-haired), and detections of Hoary bats. Bat-related highlights were the very well-attended Bella Coola Batfest public night, and mist-netting in the beautiful wetland complex in the upper valley (see photo). The project also successfully located an active Northern Goshawk (*Accipiter gentilis*) nest and logged five incidental encounters with Coastal Tailed Frogs (*Ascaphus truei*).



A pond in the wetland complex in the Clayton Conservancy, and a long-eared bat captured there.

Saskatchewan

University of Regina Bat Lab Update

Dr. Mark Brigham mark.brigham@uregina.ca

The news from Saskatchewan - perhaps the best news so far is that WNS is not here. Fingers crossed that hopefully we can continue to say that for a long time.

I undertook my 3rd trip to Belize in the spring to study the roosting and foraging of *Chrotopterus auritus* which uses tunnels dug by looters into Mayan temples as roosts. This work is being undertaken collaboratively with Robert Barclay (Calgary), Hugh Broders (Saint Mary's) and Cory Toth (Auckland). We are now at a point where a short paper can be written based on the data that we have collected. This means I have to apply the same techniques normally reserved for encouraging students, on myself to get this written up.

I presented a paper at the recent NASBR meeting in Albany, NY on data collected on torpor use (not in this case) by *Rousettus aegyptiacus* using a cave on Table mountain South Africa. These data were collected in 2011 and also need to be written up. See "student encouragement techniques" above.

Brandon Klug is undertaking his third winter field season working on *Eptesicus fuscus* in Dinosaur Prov. Park in Alberta. He is investigating the hibernation biology of these bats and assessing the reasons for why they emerge and fly in mid-winter. As a side project, along with intern Louis Gower from Cardiff University in the UK, data were collected in 2013-14 which will allow for a multivariate assessment of the conditions under which bats are most likely to a) arouse, and b) emerge during the winter. Brandon gave a talk about these data at the NASBR meeting.

A new student has also joined the lab. Shelby Bohn has migrated west from the Willis lab in Winnipeg to undertake her M.Sc. At this point, we are still planning but her work will likely focus on silver-haired bats in the Cypress Hills of Saskatchewan.

Alaska

Two Keen's myotis in Southeast Alaska test positive for rabies

Karen Blejwas, Alaska Department of Fish & Game, Wildlife Diversity Program

This summer two Keen's myotis from Southeast Alaska tested positive for rabies. One was trapped by biologists on Prince of Wales Island in July and the other was collected from a trampoline at a residence in Wrangell in late August. The Wrangell Keen's had a rabies variant typically found in red bats and

Myotis species and the POW Keen's had a silver-haired bat variant of the virus. Prior to this summer, the only confirmed cases of rabies in Alaska were a little brown bat found in Ketchikan in 1993 and a Keen's myotis trapped by a bat researcher on POW in 2006. The Keen's myotis is found at low densities throughout most of Southeast Alaska, but is rarely encountered by homeowners.

Acoustic Bat Monitoring on the Chugach National Forest

Jessica Ilse, Chugach National Forest, Glacier Ranger District

Dr. Susan Loeb, Forest Service Southern Research Station

Dr. Doug Causey, Professor of Biological Sciences, University of Alaska, Anchorage

Jessica Faust, Graduate Student at University of Alaska, Anchorage

During the 2014 field season we launched into acoustic bat sampling across the Chugach National Forest with a team of two technicians and five interns. By summer's end we sampled 54 random points, and collected vegetation data following the Common Stand Exam (CSE) quick plot methods. We have only begun to look at the data, but hope to see if some habitat association patterns emerge. One pattern we anecdotally noted was the lack of bat activity at several pure aspen stands. A few detectors continue to collect data into the fall to see how activity levels change over time.

Bat Captures and Acoustic Monitoring Efforts in Southcentral and Interior Alaska

Alaska Department of Fish and Game, Wildlife Diversity Program

David Tessler, Marian Snively, and Jen McGrath

The field work completed in 2014 is part of a larger cooperative project which addresses the conservation risks of white-nose syndrome and wind energy development for Alaska's bats, and assesses bat related human health concerns. The cooperators include the Alaska Department of Fish and Game (ADF&G), US Army Alaska, Fort Wainwright Garrison, Bureau of Land Management, National Park Service, Department of Biological Science, University of Alaska Anchorage (UAA), US Fish and Wildlife Service, Chugach National Forest, Alaska Biological Research, and Museum of the North, University of Alaska Fairbanks (UAF).

Personnel from ADF&G, UAA and Alaska Natural Heritage Program trapped bats from July 7 through August 8 during the 2014 field season. We used net arrays that included two triple high nets, combined with a number of double high and single high nets. Initially our focus was to trap bats in Anchorage at sites where bat calls were previously detected. No maternity roosts in the Anchorage area have been reported, so capture sites were not closely associated with these in the immediate area. Placement of the nets was mostly in covered flyways and near water bodies. We attempted captures at Potter Marsh for three nights and at Otter Lake for two nights; bats were present but none obtained at either location. During these trapping attempts bats were observed flying up to the nets, and either flying over

or around them. We suspect that the extended daylight provided enough light to enable the bats to see the nets. We learned that Anchorage has some unique challenges for bat trapping, such as very long daylight hours, ubiquitous waterways and water bodies, and seemingly low bat densities. We changed our primary focus to trapping bats at known maternity roosts. We looked into our state-wide Citizen Science database for known maternity roosts and gained the permission from landowners to trap on their property. We trapped bats along the road system in the following locations: Wasilla, Talkeetna, Byers Lake, North Pole, Delta Junction, Tok, and Glenallen. All of the sites were maternity roosts, except for Byers Lake. Bats were captured at every site.

By the end of the season a total of 59 bats were captured, banded and processed. A total of 57 bats were caught at maternity roosts and two were caught at Byers Lake at the inflow bridge. The captured bats comprised of 52 females, of which 38 were adults and 14 were juveniles. We also captured 3 adult and 4 juvenile male bats. Processing consisted of collecting wing punch samples, swab samples, morphometric measurements, and weight data from all bats. We assessed sex, reproductive status, age, and wing condition. We also collected ectoparasites from 24 bats and guano from 13. Lastly we recorded bat calls using a zipline or hand releases.

All swab and guano samples will be processed at UAA for pathogen testing. The wing punch samples will be sent to the UAF Museum of the North-Fairbanks for genetic analyses of mitochondrial and nuclear DNA, verifying taxonomy genetically, and assessing the overall level of genetic population structuring. Reference calls will be shared with a northern or Alaskan bat call library (in development), and will be coupled to the genetic identification of individuals (possible archived in ARCTOS) to aid in the future identification of bats detected acoustically.

Also during this field season, we enhanced our research efforts by placing detectors throughout the Anchorage Bowl to get an idea of where the best capture sites may be located. The detectors were moved around frequently and only deployed at each site for a short duration. A total of 25 locations were monitored during this time. In addition to the Anchorage sites, three sites were monitored in Prince William Sound and one was monitored at Nancy Lakes State Recreation Area. Detectors were also placed at possible capture sites along the road system at Byers Lake, Delta Junction, and Fairbanks. One detector was left with ADF&G staff in Delta Junction to create a long term monitoring site.

As the capture season came to a close in August, acoustic monitoring efforts switched to long-term monitoring sites. Eagle River and Potter Marsh had been designated monitoring sites since fall of 2013 and three more long-term sites were added in September. The detectors are located in areas close to either moving or stagnant water sources. Although sound files from all months have yet to be thoroughly analyzed, preliminary review and capture effort observations suggests that bats in the Anchorage bowl are pervasive and are found in low densities, likely due to the ubiquitous nature of Anchorage's water ways and water bodies.

Interior Alaska Bat Project

Rachel Shively, University of Alaska Fairbanks

This summer I wrapped up a study of the diet of little brown bats in interior Alaska. In addition to using microhistology to detect diet changes through the season, I've used the comparison of carbon and nitrogen stable isotope ratios of the guano and collected prey items to look for an alternative method of diet analysis. This August and September I was able to radio tag and track little brown bats during their fall migration in this region.

Southeast Alaska Bat Research

Karen Blejwas, Michael Kohan, Dylan Rhea-Fournier, Laura Beard
Alaska Department of Fish & Game, Wildlife Diversity Program

This year was the fourth year of passive acoustic monitoring in Juneau and the third year of monitoring in other communities across Southeast Alaska. This season we reduced our effort in Juneau to 6 monitoring sites and expanded our regional effort to 18 monitoring sites. Acoustic monitoring has provided new insights into the distribution and seasonal activity patterns of silver-haired bats in Southeast Alaska, as well as the first records of hoary bats for the state; these results will be published in an upcoming special issue of *Northwestern Naturalist* devoted to northern bats.

We conducted capture surveys in communities across Southeast Alaska this summer in an effort to better document the diversity and distribution of bat species in the region. We surveyed sites on 4 islands (Wrangell, Mitkof, Revillagigedo, and Prince of Wales), as well as 2 locations on the southern mainland (Hugh Smith Lake and Hyder) and 2 on the northern mainland (Gustavus and Haines). As expected, the little brown myotis comprised most (62%) of the 166 captures. The long-legged myotis was the least frequently trapped bat, comprising only 2% of captures; one of these was in Haines, a new locality for this species. The remaining species (California, Keen's, Yuma, and unidentified myotis sp.) each comprised 7-10% of captures. We collected wing biopsies for genetic confirmation of species identifications and reference calls (kiting, ziplining, and/or hand releases) to add to the Northern Bat Reference Call Library.



Long-legged myotis from Haines. ADFG photo.

We have completed our 4th season of radiotelemetry aimed at identifying fall and winter roosts of little brown myotis in the Juneau area. This fall we tagged 24 bats at 3 sites in the Juneau area during 9/8 – 10/1. Radio-tagged bats used between 1 and 6 roost sites (all in houses or snags) prior to hibernating; we used dataloggers to monitor roost attendance of 21 of the bats for an average of 7 nights each (range = 1 to 24 nights) during the pre-hibernation period. We followed 7 bats to their overwintering areas and located 6 hibernation roosts. Five roosts were located in holes in the ground in rock slide areas on steep, forested hillsides and the 6th roost was underneath a root wad at the edge of a muskeg. All of the roosts were located on the same 2 ridge systems that were used last year; one is a north-facing ridge above the main capture site at Fish Creek and the other is a west-facing ridge approximately 14 km west of Juneau on Admiralty Island. We placed iButtons both inside and outside the roosts to monitor temperature and relative humidity over the winter.



Little brown bat hibernation roost habitat. Pink flagging marks the entrance to an underground roost. ADFG photo.

Southeast Alaska Citizen Science Bat Monitoring Project

Michael Kohan and Karen Blejwas

Alaska Department of Fish & Game, Wildlife Diversity Program



Kate Boesser, librarian for the Gustavus Library, describes the route of the driving survey to citizen scientists. ADFG photo.

The Alaska Department of Fish & Game's Wildlife Diversity Program initiated a citizen science project in the summer of 2014 to collect baseline information on the distribution, habitat use, and seasonal activity of bats in the region. Southeast Alaska is an island archipelago, and most communities are accessible only by boat or plane, making it logistically challenging and expensive for biologists to collect data at multiple locations. In Southeast Alaska, public libraries connect the community members to local events and serve as a 'hub' for information sharing.

We partnered with public libraries in 2 communities to establish a citizen science acoustic survey project. The libraries served as centers for advertising the project and recruiting citizen scientists and librarians were responsible for checking out the equipment and downloading and submitting the data. A total of 30 community members participated in 18 driving surveys that covered specific survey routes and followed standardized protocols. Through this citizen science effort, we were able to identify which species are present in these remote communities, as well as the habitats they are using. These data will also be contributed to a new national database for monitoring bat population trends. The successful partnership established between ADFG biologists and community libraries will enable us to continue monitoring bat populations in these remote communities.

Michael Kohan will be presenting this information at the Citizen Science Association Conference (a preconference to the annual meeting of the American Association for the Advancement of Science) in February, 2015



Young volunteers display the bat detector used in the Gustavus driving surveys.

. Photo by Emily Herman.

White Nose Syndrome

Highlights of 7th Annual White Nose Syndrome Workshop, St. Louis, Missouri, 8 – 12 Sept. 2014.

By Cori Lausen, WCS Canada

The agenda and abstracts for the 7th annual WNS workshop can be accessed online: <https://www.whitenosesyndrome.org/wns-symposia-workshops>. This year's meeting again started off with updates from the US WNS working groups, followed by new research. I encourage you to check out the abstracts online; in brief, these are the tidbits that I found interesting:

- still 7 species affected by WNS, but Pd spores have been found on 5 species without presence of the disease. The most unexpected finds for spores include silver-haired and eastern red bat.
- 25 states with WNS, and an additional 3 with Pd detected. Still just 5 provinces with WNS.
- Updated US Cave Advisory has still not been released.
- Allysia Park provided a talk about Canadian WNS efforts.
 - To support NABAT monitoring, Env Canada purchased 12 SM3BAT detectors that are available for loan.
 - Bat species listed provincially at risk due to WNS in 3 provinces so far: ON, NB and NS.
 - Product testing of Canadian-specific antifungal decontamination chemicals being completed.
- NE US updates on driving transects from 2009 to 2013 showed a constantly declining rate of detection of little brown myotis, northern myotis, and tricoloured bat. Conclusion was that the activity rates are so low now that doing transects may not be worth doing, due to a lot of zero detections.
- Kentucky reported little brown myotis as rarely located any more.
- In New York, northern myotis continue to decline but little brown decline all happened earlier on. Several New York sites have shown a 13-20% increase in populations in hibernacula since the initial huge declines. Most evidence suggests this is a result of resistance not immigration (M. Kilpatrick).
- Ohio/Indiana report declines of northern, little brown, and tricoloured of ~90%.
- UV has been proven over and over again as an effective field method for detecting Pd on bats. However, the absence of fluorescing does not ensure Pd negative; fluorescing is indicative of Pd spore presence (92% of bats that fluoresced did have Pd; M. Verant).

- Detection of Pd at maternity colonies has been shown to decrease as the maternity season progresses. Detection is highest in May after bats have returned from hibernacula, and lowest in August when detection drops to zero (K. Langwig). It was proposed that in summer Pd is most detectable in guano rather than in the fur of bats, and that guano may be a likely vector of spread of the spores in summer (A. Ballman).
- Pd load on bats depends on how long the fungus has been at the site. In year 1 of infection, Pd prevalence increases over winter. In subsequent years, the prevalence increases almost immediately after the bats have entered into hibernation, due to the establishment of environmental reservoirs. If there is to be any kind of control of Pd, it must happen in the first year of infection at the site. (K. Langwig). It was stressed that action is needed at the invasion front of the disease, with microclimate manipulations or applied biocontrols (M. Kilpatrick).
- evidence suggests that little browns transmit Pd to tricoloureds (K. Langwig).
- bats in southern latitudes have an order of magnitude higher Pd fungal loads than higher latitude bats (southern vs northern eastern US states; W. Frick).
- still no genetic match in Europe to the Pd strain in North America (J. Lorch). Sampling in Asia has begun.
- as in North America, European strains grow best at 10-15 C. Based on where the fungus grows in European caves, projections onto North America suggest it should grow best in the areas of the NE where we already see the devastation, and in the west.
- infected bats show higher metabolic rates and evaporative water loss (L. McGuire).
- research on biocontrols continues. One volatile (B-23 fungally derived) was tested in a mine containing bats that were not infected; bats were not disturbed by the presence of this even though the compound could be smelled throughout mine (L. Last)
- future directions in Pd/WNS research include understanding gene expression in Pd and looking to alter this expression (e.g., D. Lidner), and understanding the immune response of bats to Pd with hope of immunity interventions for bats.

Updated decontamination Protocol

A Canadian decontamination protocol for WNS has been developed and will soon be posted on the Canadian Cooperative Wildlife Health website (http://www.ccwhc.ca/wns_decontamination.php).

Ads

Courses/training

There will be a Wildlife Acoustics Techniques Course offered 10-12 Feb. 2015 Miami, Florida. Although far away, it is the only confirmed course to-date. Please contact Dr. Cori Lausen for further information at info@batsrus.ca.

Bat houses as an educational tool

My name is Matthew Timm and I am a math teacher at Cold Lake High School in Alberta Canada. For this upcoming school year I would like to design a project based unit for my grade nine math class. This project would cover all the curricular outcomes for the students' measurement unit. My ideas to have students design and build a bat houses in teams. After the bat houses are complete the students would go and install them in the local parks that boarder our community. Through this project I hope to improve student awareness about the importance of bats in Cold Lake. I believe that a project like this would be engaging and very rewarding to the students. Any information that you may have about building bat houses, or where to acquire funding to help with school initiatives in rural communities, would be very helpful. Please contact me at Matthew.Timm@nlsd.ab.ca

Recent literature

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- Burles, D.W., M.B. Fenton, R.M.R. Barclay, R.M. Brigham and D. Volkers. Aspects of the winter ecology of bats on Haida Gwaii, British Columbia. In press. *NW Naturalist*.
- Rintoul, J.L.P. and R.M. Brigham. 2014. The influence of reproductive condition and concurrent environmental factors on torpor and foraging patterns in female *Eptesicus fuscus*. *J. Comp. Physiol. B.* 184:777-787.

Alberdi, A., J. Aihartza, O. Aizpurua, E. Salsamendi, R.M. Brigham and I. Garin. 2014. Living above the treeline: roosting ecology of the alpine bat *Plecotus macrobullaris*. *European J. Wildlife Research*. DOI 10.1007/s10344-014-0862-8.

Conferences

Don't miss this! The first time ever that North American bat working groups come together for a combined meeting:

North American Joint Bat Working Group Meeting

March 3-6, 2015
Crowne Plaza, Downtown St. Louis, Missouri

Registration details and Call for Abstracts coming soon!

Save the Date!

Western Bat Working Group
Midwest Bat Working Group
Southeast Bat Diversity Network

And in the somewhat distant future:

NASBR 2015: Oct 28 – Nov 1, NASBR 45, Monterey, CA, USA

WBCN Newsletter Submissions

Please submit all newsletter submissions to Jen Talerico: Western.canada.bat.network@gmail.com

Submissions can be made at any time.

Archived newsletters

This newsletter first started in Fall 2002. It is produced two times per year and is housed by the Alberta Sustainable Resource Development on the Alberta Bat Action Team website. All past issues can be accessed at the following link: <http://esrd.alberta.ca/fish-wildlife/wildlife-management/alberta-bat-action-team/abat-programs-publications.aspx>

Distribution List

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