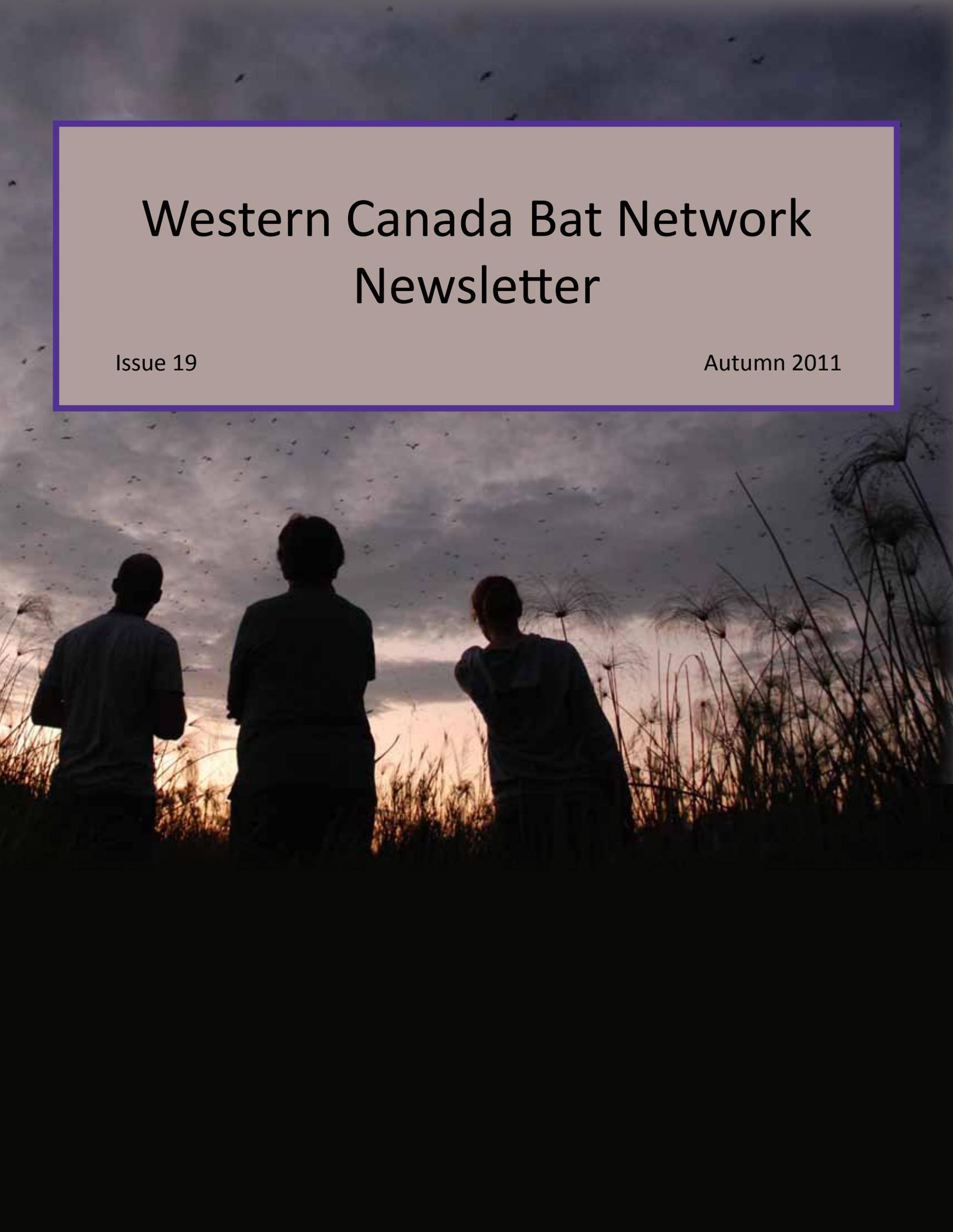


Western Canada Bat Network Newsletter

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Photo: Robert M. R. Barclay. Cover photo: Robert M. R. Barclay,

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Western Canada Bat Network

Message from the Editor

It has been a pleasure to act as the guest editor for this issue of the WCBN newsletter, thanks for all your great updates!

Jen Talerico, the usual editor, has been busy with her new baby, congratulations! I have volunteered for this issue, and have enjoyed the opportunity to read about everyone's projects. As a community we are very busy people!

While it is winter now, this update will help keep everyone informed about each other's interesting projects and hopefully inspire an excellent and productive 2012. I am looking forward to another great year with the South Coast Bat Action Team and have been lucky to end 2011 on a high note by having the exciting opportunity to go to Nicaragua this December to volunteer on Carol Chambers' forest fragmentation bat research project, working to mistnet bats and collect Anabat data in the forests of southern Nicaragua.

I wish you all the best in 2012, remember to take lots of pictures of those fascinating bats!

Thanks,
Erin Rutherford



Photo:Erin Rutherford

British Columbia

Bat Acoustics Courses in Western Canada Well Attended

Cori Lausen, Bats R Us, Kaslo, BC and Kim Livengood, Bat Sense, Columbia, MI.

Cori Lausen and Kim Livengood taught an Anabat Techniques acoustics course in Creston this past May. It was hosted by Marc-Andre Beaucher at the Creston Valley Wildlife Management Area. Thirteen participants learned how to use bat detectors passively and actively, including mobile monitoring. The first night of the field component included capture and reference calling bats: thanks to Mike Sarell and Thomas Hill for mistnetting. Classroom instruction included species identification and use of Anabat software. Back by popular demand!.... The next Canadian Anabat Techniques course is being held in the last week of May in Vancouver, hosted by the Stanley Park Ecology Society.

Cori Lausen, with assistance from Erin Baerwald, provided a course on Anabat Analysis in Edmonton this past September. This course was classroom instruction diving deep into Anabat software and the tools it offers for fast efficient processing of large datasets of Anabat files.



Purnima Govindarajulu, Mike Sarell, and Erin Rutherford record little brown and Yuma myotis from the deck of the Creston Valley Wildlife Management area as part of the Techniques course's field component. Photo: Cori Lausen.



Winter Bat Monitoring Project Underway

Cori Lausen, Wildlife Conservation Society Canada, Kaslo, B.C. info@batsRus.ca

I officially began my postdoc research this fall. Currently I am funded by NSERC and Wildlife Conservation Society Canada as an Industrial Postdoctoral Research Fellow (IRDF). Columbia Basin Fish and Wildlife Compensation Program is the other official collaborator with WCS. The project is being funded by HCTF, Col. Basin FWCP, and CWS. There are 3 main study sites for Year 1 of this research: Okanagan, Vancouver Island, and Kootenays, with some monitoring trickling into the Grand Forks and Kamloops areas. Mike Sarell and Doug Burles are doing the acoustic monitoring in the Okanagan/Thompson regions this winter; myself, Thomas Hill, Leigh Anne Isaac, and Gillian Sanders are looking after the East and West Kootenay and Boundary components of the project which involves acoustic monitoring, mistnetting and radiotracking; a team of folks are taking care of the Vancouver Island study area: Purnima Govindarajulu, Martin Davis, Shari and Trystan Willmott, Trudy Chatwin and Helen Schwantje.



Plastic is laid in a mine at north end of Kootenay Lake and will be checked periodically to document timing of feces production and thus foraging. Preliminary experimentation with this last winter documented feces production in late February. Photo: Cori Lausen.



Things are off to a great start, with 27 bat detectors spread across southern BC and even a couple in southern AB where I have had a long term monitoring project to test some hypotheses of causes of winter bat flight. Tracking bats has been challenging; Thomas Hill and myself tracked one MYYU adult male to a snow covered boulder field at 6000 ft in early November, raising more questions than it answered!



A *M. yumanensis* winter roost located by Thomas Hill via airplane and then myself and Thomas located specific location of roost in boulder field following heli drop at 6000 ft. Photo: T. Hill.



If it wasn't clear before, it certainly is now -- we have a great deal to learn!! Funding is our main limiting factor, in addition to our time window before arrival of WNS. It is hopeful that Year 2 funding will enable this project to continue next winter and tracking will move into the Okanagan area. Tracking of bats in the West Kootenay as far west as Grand Forks is to take place throughout this winter to elucidate behavioural, torpor, and roosting selection patterns in at least 2 species: *Myotis californicus* and *Lasiurus noctivagans*; several low elevations mines housing these 2 species for the winter and are known and these 2 species remain active in winter, as does *Corynorhinus townsendii*. Several observations have led me to hypothesize that there may be different hibernation strategies for different sexes in some species, and thus we will try to mistnet in the Kootenay area as much as possible as the snow begins to disappear from low elevations at the end of the winter.

Stay tuned for more details!

Alberta

International Peace Park Bat Survey
Cori Lausen, Birchdale Ecological, Kaslo, B.C.

This summer I had the pleasure of working with Glacier National Park biologists Lisa Bate and Courtney Raukar, and Waterton Lakes National Park biologists Cyndi Smith and Barb Johnston (and many volunteers!) to conduct the first Peace Park bat survey. We spent all of July and a few days in August, capturing the full complement of *Myotis* species, along with all 3 migratory bat species: hoaries, silver-haired and eastern red bats. Many nights of acoustics data were collected and have yet to be analyzed, however, it was noted that in early July eastern red bats were being recorded in Waterton suggesting a resident population there. Both parks continue to monitor bats acoustically this winter.



South Dakota

Black Hills Bat Gates

Joel Tigner, South Dakota Bat Working Group, Batworks, LLC

The total number of bat gates constructed in the Black Hills of South Dakota has risen to 48 with the completion of three new sites during 2011, two abandoned mines and one cave. Additionally, a previously constructed gate that had been vandalized was repaired. The majority of protected sites in the Black Hills are abandoned mines, with sites being located on public and private lands. Funding for these projects has been provided by South Dakota Department of Game, Fish, and Parks, Black Hills National Forest (USFS), Bureau of Land Management, and private landowners. Abandoned mine assessment as bat habitat is ongoing in the Black Hills of South Dakota.



Black Hills Bat Gate. Photo: Joel Tigner



Montana

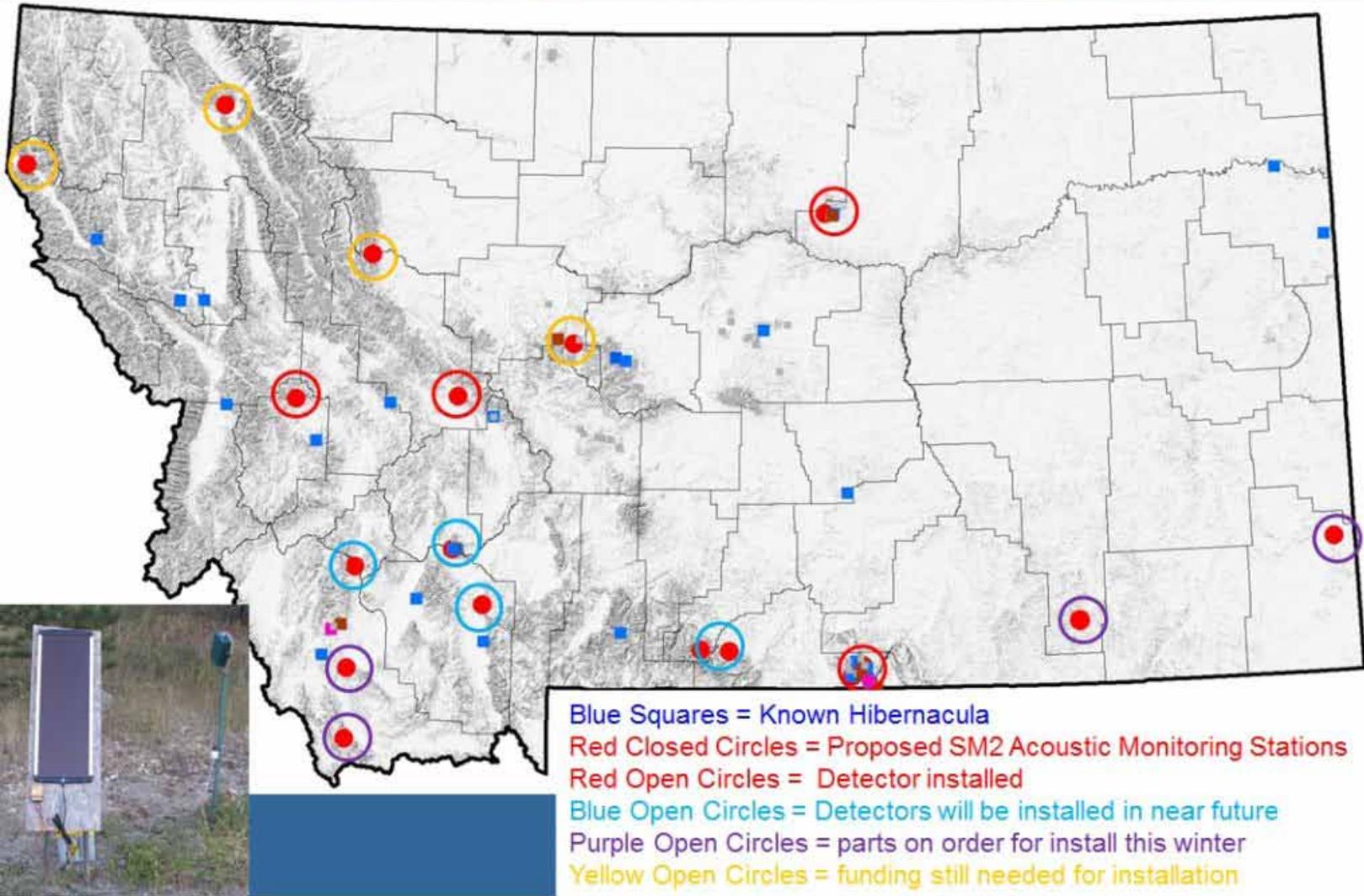
Montana Bat Working Group

Bryce A. Maxell, Montana Natural Heritage Program

The Montana Bat Working Group recently had a meeting at Lewis and Clark Caverns focused on strategies for dealing with White-Nose Syndrome (WNS) in bats. In order to address the potential coming of WNS, we: (1) are developing a poster on Montana bats; (2) have reached out to cavers in the Rocky Mountain Grotto and a select group of them have agreed to get us data on bats and/or work on getting bat observations made by other cavers to us; and (3) are working on getting an array of SM2 bat detector/recorders out across Montana to monitor bat activity year-round. We hope this last approach will give us valuable information on bat activity levels across the year for resident species and timing and major routes of migration for migratory species. Detectors are being placed near waters that are open in the winter in landscapes with lots of limestone or other rock outcrops where bats would potentially be detected in the winter during brief periods of activity to rehydrate. The attached image summarizes known bat hibernacula and proposed locations for passive acoustic monitoring stations.



Acoustic and Cave/Mine Baseline Surveys for White-Nose Syndrome in Montana's Bats



Workshops and Conferences

2012 Acoustic Training

Vancouver, British Columbia • Toronto, Ontario

Anabat Techniques Course
Vancouver, B.C. May 29 – June 1, 2012

Learn the fundamentals of bat acoustics, including the ecology of echolocation, the physics of ultrasound, and the principles behind recording and analyzing bat echolocation. Focus will be on active and passive deployment of detectors; species identification in the classroom and in the field (Western species); and using Analook software to process data. Limited space; to register contact Kim Livengood kim.livengood@gmail.com. Inquiries: Kim Livengood, or Cori Lausen info@batsRus.ca. Note that this course is a suggested prerequisite to the *Anabat Analysis Course*. Dates and locations for the 2012 Analysis courses are currently under review; inquire if interested.

Wildlife Acoustics Course
Toronto, Ontario April 18 - 19, 2012

The first Canadian course is scheduled for Toronto 18 - 19 April 2012. Focus will be on deployment of SM2BAT and EM3 bat detectors. General principles of bat echolocation – recording and analysis in both full spectrum and zero-crossing formats. Classroom format. For more information: <http://www.wildlifeacoustics.com/training-courses>



2012 Field-training Workshops
Portal, Arizona • Tulelake, California • Barree, Pennsylvania

Bat Conservation International's field-training workshops provide real-world experience with the latest techniques for bat research and conservation. These intensive 5 to 6 day sessions blend lectures and field trips with hands-on training by veteran BCI biologists and regional experts. Because of the threat of White-nose Syndrome, participants at all BCI workshops will learn and follow approved decontamination guidelines. Sign up now for a BCI workshop at any of these outstanding locations:

Portal, Arizona:

The Chiricahua Mountains, where landscapes range from deserts to high-country forests, offer a biodiversity unequalled anywhere else in North America. You can expect to capture and examine as many as 18 bat species.

Tulelake, California:

The unique lava formations of Lava Beds National Monument in northern California offer an outstanding opportunity to understand how varied cave environments affect where about 14 species of bats roost and forage.

Barree, Pennsylvania:

Netting over trout streams and beaver ponds amid the rolling farmlands of central Pennsylvania, we will examine up to eight species of bats as we visit both summer and winter habitats.



Bat Conservation and Management Workshops

Arizona: May 7-12, May 13-18 California: July 6-11 Pennsylvania: August 17-22

These workshops offer hands-on experience using mist nets, harp traps, radiotracking gear and bat detectors, along with lectures, discussions and field trips. Lectures cover habitat assessment, conservation challenges, management, conflict resolution and much more. Field training includes advanced capture techniques, safe and humane bat-handling and species identification, all taught by expert instructors. The \$1,595 course fee covers course materials, lodging, and field transportation.



Advanced Capture Techniques Workshops

Arizona: May 19-23

Pennsylvania: August 23-27

Explore more advanced monitoring and capture techniques – both contact and noncontact – for conducting bat inventories and survey programs. Intended for graduates of previous BCI field courses, the workshop is designed for wildlife biologists, researchers, and consultants who may implement their own bat-monitoring programs. We will combine physical capture techniques with passive bat-detector monitoring, video-monitoring, active acoustic monitoring, mobile acoustic transect inventory plans with the goal of accurately sampling bat diversity. The fee of \$1,595 covers course materials, food, lodging and transportation in the field.

Acoustic Monitoring Workshop

California: July 12-17

Designed for biologists, consultants and researchers, Bat Conservation International's Acoustic Monitoring Workshop provides direct experience with cutting-edge technologies. You'll work directly with AnaBat/AnaLook and SonoBat software developers Chris Corben and Joe Szewczak to learn techniques for collecting, recording and analyzing bat calls in the field. This session covers heterodyne, frequency-division, time-expansion and direct-recording techniques, and explains protocols for designing an acoustic-inventory project. The fee of \$1,795 covers course materials, food, lodging and transportation in the field.

For information and registration, visit www.batcon.org/workshops or contact Dianne Odegard at (512) 327-9721, ext. 26, or workshops@batcon.org

**2012 and 2013 North American Symposium on Bat Research**

North American Symposium on Bat Research 2012 – San Juan, Puerto Rico. Oct. 2012.

North American Symposium on Bat Research and the International Bat Conference – Costa Rica. August 2013.



2011 North American Symposium on Bat Research

NASBR in Brief Cori Lausen

This year's NASBR in Toronto, hosted by the Royal Ontario Museum, was another well attended conference with special symposia on White Nose Syndrome, Bats in Education, and many more. A one day Bat Acoustics workshop prior to the conference was put on by Brock Fenton, and was well attended by all major bat detector and bat acoustics software companies. The conference did hold some sadness for members this year as the society gave memorial to: Don Thomas, James Fullard and Elisabeth Kalko. Additionally, Tom Kunz was seriously injured when hit by a vehicle en route to the opening social, and is now recovering in Boston.

Abstracts for the conference can be accessed: http://www.nasbr.org/meetings/41_toronto/documents/NASBR_2011_Abstracts.pdf



Gear

A few new toys available for bat researchers

Cori Lausen

6 month transmitters - Lotek/Biotrack manufacture a 0.59 g transmitter that you can program to turn on/off throughout a 6 month period, transmitting just on the days you want it to (approximately 10-11 transmitting days).

Cavelogger – Chris Corben, maker of Anabat, announced at NASBR this year that Titley Scientific will be coming forth with a new product early in 2012 that will allow you to determine use of caves/mines by bats, and do so in a very cost effective way. Details will be forthcoming in the New Year.

EM3 bat detector – a new handheld bat detector, available in Dec. 2011. Wildlife Acoustics is now accepting pre-orders for their new active monitoring bat detector. It is basically all bat detector technologies in one unit – listen in heterodyne, real time, or frequency division; record in full spectrum or zero-crossing. The best part is the built-in screen so you can view sonograms while you are recording -- very useful for identifying bats while actively recording in the field. For more info: <http://www.wildlifeacoustics.com/products/ultrasonic-monitoring>



Fieldwork Updates

Jody Rintoul

I spent my first field season in summer 2011 looking at thermoregulation and foraging patterns during reproduction in big brown bats. Some preliminary findings: post-lactating bats foraged for the longest amount of time and further from their roost than any other reproductive stage while not using torpor. The other reproductive bats foraged in a relatively small area but non-reproductive bats were the only ones that used torpor regularly. I am currently working on refining my project to include an experimental component which will alter the thermoregulatory needs of bats for the 2012 field season.

Joseph Poissant

I did most of my fieldwork this summer south of the border, collecting fur and tissue from juvenile and adult big browns in the Great Plains in an effort to determine how this species has radiated into the prairie following European settlement. As well I hope to determine where this species forages by comparing carbon and nitrogen stable isotope signatures from bat fur and terrestrial and aquatic insects. I went as far as Kansas with Tom Allen, a visiting undergraduate student from Cardiff University in the UK. I will continue to collect data in 2012, most likely additional sites in the United States.



Mark Brigham

I returned from sabbatical in South Africa in June. As I left I had begun a collaborative project with Robert Barclay, Craig Harding, David Jacobs and Laura Barclay looking at the potential for torpor use by Egyptian Fruit bats (*Rousettus aegyptiacus*). The data are not completely analysed yet but it appears as tho the bats despite living in the cool damp conditions on the top of Table Mountain in Capetown do not use torpor. We had to keep the bats in captivity for 36 hours prior to being implanted with the radio tags and the photo is of one being fed guava nectar. They loved it!



Egyptian Fruit bat (*Rousettus aegyptiacus*) being fed guava nectar. Photo: Mark Brigham.

Stewardship Updates

Bat Conservation Society of Calgary Wendy Gardiner

In my role with the Bat Conservation Society of Calgary, I have given presentations to over 600 people, primarily school children, from January 2011 up to and including October 31/2011. Most of my presentations are in classrooms although I have also gone to day-care centers and churches. I still lug my trusty slide projector with me, vowing that once it ceases operation I will update to a Power Point presentation. However, I inherited (literally) an almost brand-new slide projector in June, so those plans may be postponed. Currently, the children get a peek at some old-fashioned “technology” which most of them have never seen before! In my presentations, in addition to slides, I use a navigational aid for the blind to help demonstrate echolocation, a short segment of a DVD about bats, and give each child a plastic bat ring after their promise to “never touch a bat.” You might be surprised at how coveted those rings are!

South Coast Bat Action Team Erin Rutherford, erutherford@scbat.org, www.scbat.org

British Columbia’s south coast is a biodiverse and densely populated region where people live alongside nature. However, bat research and stewardship in this region has been limited, resulting in a lack of understanding of bat populations and habitat needs. This spring the South Coast Bat Action Team was formed to address the knowledge gaps around bats in south coastal BC and connect bats with communities.

Funded by the Habitat Conservation Trust Foundation, SCBAT is a partnership between conservation organizations, landowners, land managers, and individuals that want to monitor bats in their community. Our goals are to identify bat roosts and valuable habitat in British Columbia’s south coast region, work with conservation organizations to provide public bat education, and work with landowners and managers to increase protection and habitat enhancement for bats on private land.



This year we have been successful in increasing knowledge on local bat populations, promoting the importance of bats in the ecosystem, and improving habitat stewardship for bats through our project. Through Anabat acoustic monitoring, mist-netting and emergence surveys we have been able to gather data on bats and bat activity from over 18 sites around south coastal BC, providing some of the most up-to-date data gathered in this region. We have launched a website, www.scbat.org and Facebook, www.facebook.com/SouthCoastBAT, to provide outreach and contact information for connecting with people that want to share their information on bats. We also maintain an outreach email, outreach@scbat.org, for any questions people have around bats in their communities, and publicly provide all of our monitoring results on a map on our website.

Now looking forward to our second year, the South Coast Bat Action Team plans to expand our community volunteer program by providing bat detectors and training to naturalist groups. We also plan to increase our field research capacity with an expanded staff and the addition of an Anabat to our monitoring equipment. By connecting with the community and discovering more about our local bats SCBAT is building a valuable knowledge base for improved bat stewardship and land management, helping bats in south coastal BC and beyond.

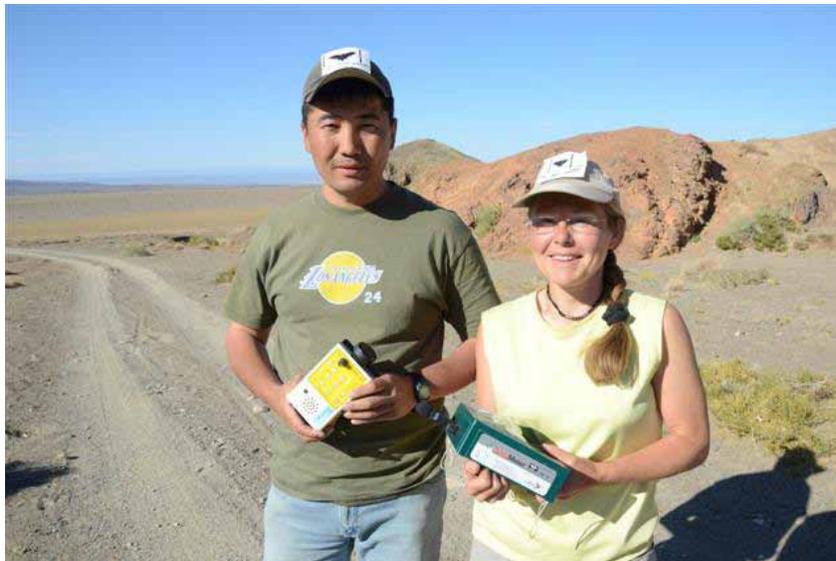


Little brown bat mistnetted on Westham Island. Photo: South Coast Bat Action Team

Classified

Supporting bat conservation and research in Mongolia

Last May I was fortunate enough to spend a month in Mongolia providing training to their biologists to study bats. Two bat detectors were donated to the country from the manufacturers: an Anabat from Titley Scientific and an SM2Bat from Wildlife Acoustics. Biologists in Mongolia are keen to include a bat component to ongoing projects and the detectors were kept busy this summer. The Mongolia people are very sincere and enthusiastic and I tremendously enjoyed working with them. They caught on very quickly to using the new technology, and within a few weeks we had established bat species diversity in the Gobi Desert where 5 species of bats could be identified acoustically and in hand. Understanding bat diversity in the country is now a high priority for them; they do not have much in the way of equipment though. I left them a few mistnets but they could really use a lot more equipment for their bat inventory and research efforts. ***Do you have bat equipment that you would be willing to donate to the country?*** If so, could you please send it to me and I'll put together a 'bat care package' to send to them in the spring, in time for their next season of bat work. (Thank you to Matrix Solutions who already donated some mistnets.) Contact: Cori info@batsRus.ca.



Ariunbold Jargalsaikhan, Mongolia's only PhD bat biologist poses with Cori Lausen to show off the 2 bat detectors that were donated to the country by Titley Scientific and Wildlife Acoustics. Ariunbold and Cori netted and recorded bats in the Gobi Desert Strictly Protected area throughout May 2011. Photo: Cori Lausen



Bat houses for sale in north Kootenay Lake area

These are rocket box designs on stand alone poles (in concrete base). Because they allow bats to shift within their roost to various microclimates (all cardinal directions). they are most effective in attracting maternity colonies of bats. See cut-away photo below showing internal chamber. One unit ~\$90. Contact Larry Leonard: 1-877-366-4412; www.leisurecedar.ca, leisurecedar.ca@lardeauvalley.com.

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://www.srd.alberta.ca/BioDiversityStewardship/AlbertaBatActionTeam/ABATProgramsPublications.aspx>

Currently ASRD is behind in the posting of these newsletters, so if you require any recent issues, please contact Jen Talerico: western.canada.bat.network@gmail.com directly.

WCBN Newsletter Submissions

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

Submissions can be made at any time.



Photo:Erin Rutherford



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