



Echoes From South Dakota

E-NEWSLETTER OF THE SOUTH DAKOTA BAT WORKING GROUP

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FALL WINTER- 2009

Protecting Bat Habitat - Black Hills Bat Gates 2009

In 2009, eight new abandoned mine sites were gated to protect bat roosting habitat. Seven of these new sites are located on privately owned land. This brings the total number of bat gates in the Black Hills to 50.

One of the greatest threats to bats throughout the world is loss of habitat. Here in SD, for bats that are year-round residents, the loss of wintering habitat poses one of the greatest threats to their continued existence.

Many of the caves that provided bats with winter hibernation roosts have been lost to commercial development or high levels of human disturbance. And not all caves provide the environment that bats require to be able to



Bat gates have served to protect important habitat and mitigate the many public safety hazards posed by abandoned mines.

By keeping people out of abandoned mines, bats are able to hibernate unmolested.

hibernate. To complicate this further, different species have different winter roost requirements.

Many of the caves in the Black Hills have been replaced by the abandoned mines that exist in the region. Recognition of abandoned mines as significant wildlife habitat has only been recognized in the recent past.

Protection of abandoned mines here in the Black Hills has been funded by SD Game, Fish and Parks, Black Hills National Forest, and the Bureau of Land Management.

SD Bat Working Group Web Site - www.sdbwg.org

Want more information about bats and bat related work being done in South Dakota? Check out our recently refurbished web site.

There is a wealth of information about SD's bats and links to other batty sites as well.

There are sections on properly managing unwanted bat roosts in buildings, which bats are found in SD, information on bat research projects, answers to the most frequently asked questions about bats, information on scheduling bat talks for classrooms or community

groups, threats to bats, and our bat books for schools project here in SD.

We hope it helps educate people about the importance of our bats here in SD. If you have something you would like to see included, just let us know!

Special points of interest:

- ENTER THE CONTEST TO NAME OUR LOGO BAT - SEE INSIDE - ASK A BAT...PAGE 3
- SPECIES PROFILE: HOARY BAT...PAGE 2
- INSIDE - HEAR REAL ECHOLOCATION!

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SPECIES PROFILE: Hoary Bat (*Lasiurus cinereus*)



The Hoary Bat is one of the migratory bats of SD. Arriving in the early spring, it is the first of the three migratory species to leave in the fall. This seldom seen species can be found throughout SD during the active season.

The Hoary Bat (so-called for the “hoarfrost” appearance of its fur) is SD’s largest bat species. Its Latin name translates as ‘hairy-tail ash-colored.’

It roosts almost exclusively in trees and is covered with a thick coat that extends down onto the tail membrane. Often roosting on the branches of trees, it uses this fur-covered tail membrane as a shelter, pulling it up over its head as a

protective blanket.

This bat is not easily confused with any of our other bat species. In addition to its larger size, it displays rounded ears that are trimmed in black.

As with all of our bats, this species gives birth only once a year.

Adult females routinely give

birth to twins and roost solitarily not forming collective maternity roosts as do most of our other bat species.

Two banded bats of this species have been recaptured during mist-netting surveys conducted in the Black Hills. Both of these recaptures were adult females and both were recaptured at the original site of banding. One

capture occurred the year following banding and the other, two years after banding. Such recaptures suggest that these bats return to a known area each year.

It is unknown whether these bats follow a well defined pathway during their seasonal migration.

Although usually solitary, this

species is known to migrate in groups. Such groups have been documented in surveys conducted in Fall River County in southwestern SD and in Custer County in the southern Black Hills.

Interesting aside: This is the only bat species in Hawaii AND is the only non-marine mammal species native to the islands.

BAT MANAGEMENT TIP



Balloons can provide an effective, non-lethal (and festive) solution to unwanted night-roosting bats.

One of the most common complaints people have about bats is their use of buildings as night roosts. Many species have favorite “hang-outs” where they rest, groom, and digest between their foraging flights at night. These are often sheltered spots beneath open porches or entryways into homes or

buildings. Droppings accumulate beneath these locations requiring a daily clean-up.

One simple solution is to tether a Mylar (for durability) helium balloon using fishing line to be suspended immediately above where the droppings are concentrated. The balloon should be close

but not rest against the roof or protective overhang but move freely with any air current. If you have more than one dropping pile, tether a separate balloon over each of the piles. Leave the balloon(s) in place for the life of the helium. This is often enough of a deterrent to cause the bat(s) to relocate.

WINTER PROJECT IDEA - BUILD A BAT HOUSE

Bat houses are easily built but need to be constructed mindful of the climatic conditions here in SD. What works in Georgia, for example, doesn't necessarily translate well into this part of the country.

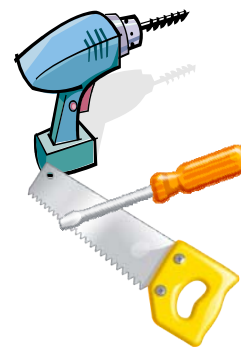
Thick outer walls and roof coupled with a dark-painted/stained exterior are the most important differences. (Do not paint or stain any of the bat house's interior.) Use 1" thick rough sawn wood for construction of the back, exterior walls, front, and roof. Rough

sawn wood is available at most sawmills. If rough sawn wood is not available in your area, use 3/4" thick exterior grade plywood. Do not use any pressure treated wood in the construction of your bat house as such treatments can be toxic to bats.

The best houses will hold a warm temperature longer into cool of the evening. This is important for reproductive females...warmer temps speed up pregnancy and the maturation of the pups once they're born.

Mounting tips: bottom of the box should be at least 12 feet off the ground (or nearest horizontal surface). Generally speaking, the higher the box can be mounted, the better. When emerging from the house, bats will drop down to gain air speed. If set too close to the ground, this puts them at increased risk of predation by domestic cats and/or dogs.

Simple plans are available free online (e.g., batcon.org).



EVER HEAR A BAT?

Most everyone knows that bats rely on echolocation to find their way around in the dark. (They do have eyes, and nope, there are no blind bats...not sure where "blind as a bat" came from.)

Ever wonder what echolocation might sound like? It's typically too high in frequency for humans to hear.

One of the devices used in studying bats is a bat detector. It picks up bat echolocation sounds and electronically lowers it in to the range of human hearing. If you have the latest version of the free Acrobat Reader from Adobe, turn on your computer's sound/speakers and click on the adjacent button to hear a recording of what bat echo-

location sounds like...



ASK A BAT...

Have a question about bats? Chances are, other people are wondering the same thing. Submit your question to us and we'll try to find you the answer.

Those people whose questions are selected for the newsletter will receive a batty prize.

CONTEST - Since this is our first issue and we have no questions from you, we are asking for help in naming our logo bat (pictured at right).

Submit your name of choice via email before year's end to participate in the contest.

The winner will receive a copy of the book, *BATS OF*

THE UNITED STATES by Michael Harvey, Scott Altenbach, and Troy Best. The book is 64 pages with color photographs of all bat species found in the U.S.

Submit your question or name-the-bat entry via email before the end of 2009 to joeltigner@gmail.com.



DID YOU KNOW?

BATS CAN LIVE
FOR A
LONG TIME....

THE RECORD FOR
LONGEVITY FOR A
SPECIES FOUND IN
SD IS OVER
34 YEARS!

JUST FOR KIDS...



You can find bats roosting in many odd places. Here is a young Hoary Bat that must have been separated from its mother during a thunderstorm the night before. It was found roosting in a decorative plant on the porch of a house near Rapid City.

If left alone, most of the time, the mother will return to the area and pick-up her pup the following night.

It is important that you not handle or touch bats (or other wild animals).

This protects you and the bat!

Two bats are hanging from the roof of a cave, watching two humans approach. One bat says to the other, "How come the blood doesn't rush to their feet?"

B-A-T

Chances are you never had much trouble with "bat" on a spelling test. It might be different in other languages. Here are some examples:

- vleermuis (Dutch)
- Fledermaus (German)
- pipistrello (Italian)
- murciélagos (Spanish)
- chauve-souris (French)

DO YOU LIKE TO DRAW?

SEND IN YOUR BEST DRAWING OF A BAT AND WE'LL FEATURE THEM IN FUTURE ISSUES OF THE NEWSLETTER. YOU CAN DRAW IT, SCAN IT, SAVE IT AS A JPG FILE, AND EMAIL IT OR SEND IN YOUR ORIGINAL AND WE'LL SCAN IT FOR YOU. EMAIL AND POSTAL ADDRESSES CAN BE FOUND ON THE LAST PAGE OF THIS NEWSLETTER.

DID YOU KNOW?

THERE ARE
AT LEAST
12 SPECIES
OF BATS
FOUND IN
SOUTH
DAKOTA

ABANDONED MINES



There are many abandoned mines in the Black Hills.



They are very dangerous places to play or explore!

PLEASE REMEMBER: STAY OUT & STAY ALIVE

BATS OR PIGS ?

While mist-netting bats during a survey near a cave in the Black Hills, a female Townsend's Big-eared Bat was captured at sunset.

She was weighed and a bat band was placed around her forearm after which she was released. She flew off in search of her evening meal.

Less than 3 hours later, she was recaptured returning to the cave whereupon she was weighed again.

In that short amount of time, her weight increased almost 45%!

Yikes! That's a lot of bugs!

To better understand just how much food was eaten - if YOU weighed 100 lbs, it would be about the same if you had about **40** cheese-

burgers for your supper!



DID YOU KNOW?

Disturbing bats during hibernation can cause them to starve to death.

Every time a bat is awakened from hibernation, it loses enough stored energy for 10-30 days of hibernation.

If this happens too often during a winter, they don't have enough stored energy to get through the winter and they starve to death.



Please Do Not Disturb!

Visit us on the web!
www.sdbwg.org



E-NEWSLETTER OF THE SOUTH DAKOTA BAT WORKING GROUP

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The purpose of the SD Bat Working Group is to work to protect bats and bat habitat through action, education, and cooperation with Federal, State, Tribal, and private landowners.

Our objectives are two-fold: to raise awareness about the role bats play in maintaining healthy ecosystems; and to work with public land managers and private landowners and provide alternatives that will reduce possible adverse affects to bats or bat habitat.

Everyone is welcome to become a member of the SD Bat Working Group!

The only requirement is an interest in bats and their conservation.

There are no membership dues, so it's priced right for everyone!

Get Involved....because bats need friends.

BAT BOOKS FOR SCHOOLS UPDATE



NUMBER OF
ELEMENTARY SCHOOL LIBRARIES
SERVED BY THIS PROJECT:

42

NUMBER OF STUDENTS
WITH ACCESS
TO THESE BOOKS:

14,000 +