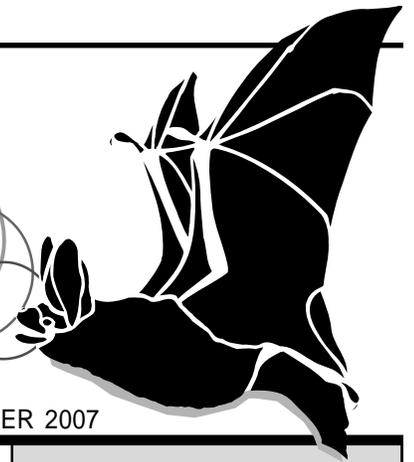


Bats News Northwest



BNW IS A NON-PROFIT, ALL VOLUNTEER CONSERVATION ORGANIZATION

SUMMER 2007

Local Kids Helping Bats - Bat House Building Workshop

by Michelle Noe

On May 14, Bats Northwest held its second Bat House Building Workshop of the year. Students from Mercer Island High School made the trek from the island up to Sand Point to lend their efforts in building bat houses to be sold to the community. The student group brought wood that their woodshop class had cut to the necessary dimensions to build many rocket-box style bat houses.

The students arrived around 10am and after unloading the wood, got straight to work. The first set of houses were a challenge as everyone figured out how to put the pieces of the puzzle together using cordless drills, helpful hands and trial and error.

Brody LaRock, a teacher from MIHS, was extremely helpful in showing the kids how to hold the pieces together to drill properly and in putting out a steady stream of well constructed houses. Thank you Brody.



Also on hand to help out was local pest animal control and wildlife removal specialist Sean Met. Sean wasn't afraid to jump in and get his hands dirty and helped to answer student questions while using caulk to seal the seams of completed bat houses.

After a whirlwind building session, the students were given a short talk on Washington state bats and were then whisked away on a school bus to return to Mercer Island.



Sean shows students how to seal the seams of a Rocket Box.



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BNW Meetings!

Second Wednesday,
6:30-8:30

Sand Point-Magnuson Park
Building 30 Conference
Room

Everyone is welcome. Come
share your bat stories and
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Where all are inspired by
the remarkable attributes
and invaluable contribution
of bats to our natural
heritage

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The Western Bat Working Group: Issues of Current Concern to Wildlife Managers

By John E. Bassett

The Western Bat Working Group (WBWG) is an organization of governmental agencies, non-governmental groups, and individuals interested in the biology, management and conservation of bats in the Western United States, Western Canada and Northern Mexico. Members are primarily professional wildlife managers and scientists from the states west of the line from Texas to New Mexico, Colorado, Wyoming, South Dakota and North Dakota including Alaska. The Canadian provinces of Saskatchewan, Alberta, and British Columbia, the Northwest and Yukon Territories, and the states of Northern Mexico are represented in the group's membership.

Wildlife managers active in the group generally work for local, state, provincial or federal governments in their respective countries, while scientists work for state or private universities, state or federal governments, or commercial consulting firms. Private individuals interested in bats and their conservation in this geographic area are also active in the group.

The WBWG is not an official government agency and, therefore, has no power to initiate or carry out programs. It does, however, provide a forum for the exchange of ideas and information useful in the management of bats which can be used by all members in their home states in their jobs as wildlife managers, research scientists, and conservationists.

The organization holds biennial meetings where the membership assembles at an appropriate venue somewhere in the geographic region to discuss topics of current interest and concern in bat management and conservation. These meetings also provide opportunities to socialize and network as well as opportunities to participate in field trips of interest to bat biologists. WBWG members attending the annual North American Symposium on Bat Research also conduct a short meeting to discuss topics of interest regarding western bats.

The most recent WBWG biennial meeting

was held in Tucson, Arizona, during the middle of April, 2007. As one would expect in April, the weather in Tucson was magnificent, the desert was in full bloom, and the local bats were active. Field trips conducted as part of the meeting included several nights of observing and netting bats in local parks and natural areas, a trip to Kartchner Caverns State Park, and a social and dinner at the Arizona-Sonora Desert Museum.

The issue of most immediate concern to managers from throughout the region was the effect on bats of ongoing wind energy development throughout the west. Wind turbines appear to cause elevated mortality in migrating bats, primarily lasurines such as the hoary, red and silver-haired bats. Mortality information was presented from wind farm

projects in Maryland and West Virginia in the eastern

United States and in Alberta, Canada.

Problems

encountered in assessing the true mortality at a wind energy site, i.e., how do you find most of the bats killed by turbine blades to get an accurate estimate of the mortality, were also discussed.

The process of developing state guidelines that must be followed in planning and building wind energy projects was discussed by representatives of states that currently have such guidelines and by representatives of states that are preparing guidelines. The perspective of the energy industry on the need for these guidelines and the form they should take was presented by a biologist employed in the utility industry. As one might suspect, the industry prefers uniform guidelines over all the states where they operate, but they did not object to the use of guidelines. In fact, the industry finds guidelines important because they explicitly define the steps that must be completed to site a facility before the facility permitting process begins. In essence, guidelines ensure that no costly surprises appear as the application process nears completion.

Since migratory bats such as the hoary, red and silver-haired appear to be most



affected by wind turbines, a session was devoted to the problem of marking and recovering bats to determine movement in the field. The ability to recover and recognize individual animals marked at a specific location allows biologists to determine where animals killed at wind turbines came from and where animals that avoided the turbine blades ultimately went.

The established technique of bat banding was examined. Practiced extensively in the 1950's and 1960's, banding has provided much information about bat movements, especially in the eastern United States. Banding, however, is not without its problems since the bands can cause injury and reduce the survival of animals in the wild. Other techniques to mark bats were also discussed, but nothing new is poised on the horizon to replace banding. The session concluded that banding was a useful technique to track the movement of bats in the field which has numerous advantages as well as potential problems. The same can be said of most useful techniques employed in any scientific discipline.

The second big issue of concern to wildlife managers affecting western bats to be discussed at the meeting was the problem of preserving abandoned mines which provide bats with suitable roosting habitat. Throughout the development of the American West, extractive industries such as hard-rock mining played a major part in driving settlement. As a result of this activity, much of the West contains large numbers of abandoned mines of various types which were never economically viable or were abandoned when they ceased to be profitable. Today these open shafts, pits and tunnels have become a safety hazard to the general public as well as a useful resource for bats.

The management problem presented by mines is to determine which ones provide suitable bat roosting habitat and which ones can be sealed without causing harm to bat populations. Once a mine has been determined to be an important roost, it is usually gated to keep the public out while allowing the bats free access. Given the large number of these abandoned mines across the landscape, physically examining each one in sufficient detail to determine whether they shelter bats has become problematic. Therefore, managers are developing profiles of the physical characteristics of mines and caves which are important to bats. By evaluating all the mines and caves in an area with these criteria, managers can narrow the

list of geological features they must seriously evaluate. Those mines not identified by the criteria to be of potential importance to bats can then be closed sooner rather than later to protect the public.

Other topics related to bats and mines which were presented and discussed at the meeting included the need to evaluate the landscape as a whole when determining which mines are of importance to bats. In numerous areas of the west, bats use a group of geological features as roosting habitat, using these features on a rotating basis to provide a diversity of roosts as protection against potential predators. Leaving just one or two of the important abandoned mines and closing the remaining mines in the area may have a severe impact on the survival of the local bat population. Again, the size of the local population and the rarity of the bat species involved may influence how many of the mines in an area will be preserved. Techniques for evaluating mines both externally and internally for their importance to bats were presented and discussed.

Finally, the reclaiming of abandoned mines, which have previously been gated to exclude the public and preserve bat roosting habitat by the state of Colorado, for potential uranium extraction under the Federal Mining Law of 1872 is an emerging problem. Corporations and individuals have recently begun staking claims on these features as the commodity price of uranium has increased with renewed interest in nuclear power as an alternative to fossil fuels for the generation of electricity. While the state of Colorado is unable to claim these mines and other geological features, several individuals and organizations with an interest in bat conservation have begun to stake claims on these features to prevent groups with mining interests from acquiring them. Conflict over abandoned mines between conservation and mining interests would appear to be an issue that we will continue to hear about for the foreseeable future.



Several presentations were given about the development of conservation strategies which have been useful in protecting and increasing bat populations across the West.

The Northwest Bat Cooperative, an alliance of state and federal agencies, private industry, and non-governmental organizations, has

Continued on page 4.

Have a great bat picture or story that you would like to share with your fellow bat enthusiasts and supporters?

Send photos, drawings, and stories to:

info@batsnorthwest.org
subject: Newsletter

Our Mission

***Bats Northwest
Envisions a Future . . .***

***Where the essential role
of bats is understood***

***Where the public
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initiated and partially funded several projects which determined roosting requirements for forest bats in both wet and dry forest habitats in the Pacific Northwest. Knowledge of bat roosting habitat requirements allows wildlife and timber managers to protect trees and geological features essential to bat survival while still harvesting timber from private- and government-owned forest lands.

Utah state agencies in cooperation with non-governmental groups have developed geographic information system models which can be used to predict locations within the state where a given bat species should be found. Such models aid managers in determining where to focus their efforts when looking for a given species while conducting species inventories.

In California, the coastal subspecies of the pallid bat (*Antrozous pallidus pacificus*) has been declining for some time. A plan to slow the loss of roosting and foraging habitat in the state, the primary reason for the decline, was presented and discussed.

Finally, the newly adopted California Bat Conservation Plan was presented and discussed as an example of the strategies being employed by state fish and game departments to conserve bats. Since the bats and the landscape are different in all states, the strategies which work best for a given state will vary depending on local conditions.

Several sessions were presented on techniques useful for inventorying and

monitoring bats and their habitats. These presentations ranged from the use of ultrasound monitoring to determine species composition and activity at a given location to the chemical characterization of glandular secretions deposited in roosts as a method to determine the use of a given roost by a species of concern, in this case Townsend's big-eared bat. Also, sessions were presented on the biology of western bats which included roosting ecology, habitat use by bats, and the use of new DNA-based techniques to non-invasively determine the species composition of the bats occupying a roost and to follow subspecies in the field at the geographic location where their ranges meet and often overlap. While the presentations were about specific bats and locations, the techniques presented would be useful to workers managing and studying bats throughout the West.

If you are interested in learning more about any of the topics reviewed above, a summary known as an "abstract" will be published soon for each presentation given at the 2007 WBWG biennial meeting. These abstracts will appear in the WBWG Newsletter which is available online for download from the organization's web site at <http://www.wbwg.org>. On the front page of the website, a button entitled "Newsletter" is located on the bottom left of the page. Past and current newsletters are available on the Newsletter page as PDF files, which require the free program Adobe Acrobat Reader to open. The abstracts are scheduled to appear in the next newsletter, Spring 2007, and should be available before September 1, 2007.

BATS OF THE NORTHWEST

Eptesicus fuscus

Lasionycteris noctivagans

Lasiurus cinereus

Corynorhinus townsendii

Antrozous pallidus

Euderma maculatum

Parastrellus (Pipistrellus) hesperus

Myotis lucifugus

Myotis evotis

Myotis thysanodes

Myotis volans

Myotis yumanensis

Myotis ciliolabrum

Myotis californicus

Myotis keenii

Big brown bat

Silver-haired bat

Hoary bat

Townsend's big-eared bat

Pallid bat

Spotted bat

Western pipistrelle

Little brown myotis

Long-eared myotis

Fringed myotis

Long-legged myotis

Yuma myotis

Small-footed myotis

California myotis

Keen's myotis

Feature Bat:

Anoura fistulata - A Nectar Bat

by Meg Lunnum

What if you were 5' 7" tall and your tongue was 8 feet long? If you were a rare South American bat, the *Anoura fistulata*, your tongue would be 1½ times as long as your whole body. The *Anoura* is about the size of a mouse, but its tongue is 3.3 inches long. The bat's tongue evolved exclusively to feed on the flower of the *Centrophgon nigricans*, found in the "cloud forests" on the eastern and western slopes of Ecuador. While the bat dines on the nectar, it pollinates the plant.

A tongue longer than your body would surely be a mouthful. The length of the *Anoura*'s tongue makes it impossible to keep it in its mouth when not in use. To accommodate such a long tongue, the

Anoura stores its tongue in its rib cage when it isn't using it to drink nectar from long floral tubes.

Nathan Muchhala of the University of Miami, Florida, measured the bat's tongue by training them to drink sugared water from a tube. The tube resembled the flower of the *Centrophgon nigricans*. This is the first known example of a flower pollinated by only one species of bat.

This bat is from the family *Phyllostomidae* which means "leaf-nose" and the sub-family, Glossophagine, which means "long tongued". *Anoura* means tailless. So, if you had this bat in hand, it would have a leaf-nose, long tongue and no tail.

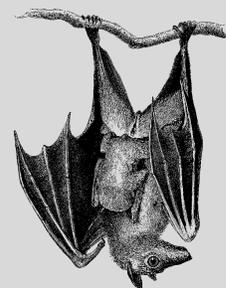


Photos by Dr. Nathan Muchhala

Many bat sites on the Web provide worthy information and great photos from around the world.

BATS NORTHWEST is focused on our regional bats, but there is so much to learn about bat conservation worldwide. You may enjoy visiting some of these sites.

www.batcon.org
www.wdfw.wa.gov/wildwatch
www.batsound.com
www.lubee.org
www.tolgabathospital.org
www.batbox.org
www.batworld.org
www.californiabats.com
www.batcrew.com
www.warksbats.co.uk



Come Out and Join Us This Summer

Come see bats at Green Lake on one of Bats Northwest's famous Bat Walks or rub elbows with the major players in the bat research community at the International Bat Research Conference in Mexico.

Members are always welcome to attend the monthly board meetings.

Keep an eye on the Events page of the Bats Northwest Web site to know what fun bat activities are coming up.

Green Lake Bat Walks:

- Friday, August 10 - 8:00 PM
- Monday, August 20 - 7:30 PM



Bats Northwest web site is waiting for you at:



www.batsnorthwest.org



Letters From You:

Dear Bats Northwest,

I would like to personally thank you for putting on a great bat info event at Greenlake park yesterday.

Everyone from our group "Seattle Hiking" really enjoyed it! I would like to thank the professor (I apologize that I don't remember your name) for graciously answering everyone's questions.

Everyone at Bats Northwest is welcome to join our group! Please see the website: <http://groups.yahoo.com/group/seattlehiking/>

This group is completely free. Hope to see you at one of our events sometime!

Take good care.

Tracy (Founder and Lead Organizer)
Seattle Hiking Group

P.S. I've attached the group photo to this email. Thought you may want to use it in your newsletter or for advertising.
Cheers!

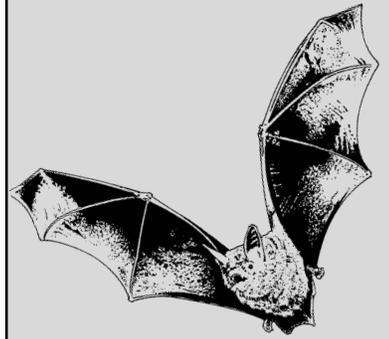


Green Lake Bat Walk June 10

Summertime is Baby Time A Pup is Born



Rehabber Meg Lunnum displays mother and pup. Mother was brought in for rehabilitation and was reluctant to fly. Soon the reason was discovered when pup was born. Both mother and pup are doing well and should be ready to release soon. They are Silver-haired bats, *Lasiycteris noctivagans*.



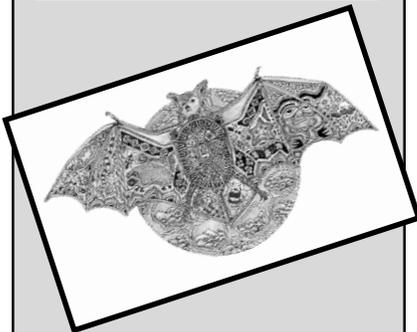
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