Bats Northwest Mailing Address: 
P.O. Box 3026 
Lynnwood, WA 98046 
206.256.0406 
Bats Northwest website: 
www.batsnorthwest.org

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Become a Bats Northwest Member.
Join us in the adventure to learn more about our bat neighbors!

Membership Options: 
☐ $35  ☐ $50  ☐ $75  ☐ $100  ☐ Other $_____________

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You’ll look great in our Bats Northwest Long-Sleeved T-Shirt! It also makes a wonderful gift.
Heavyweight cotton, natural off-white, with a brightly colored bat graphic.

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A Dream Finally Realized
by Kathleen Bander

My main motive for founding Bats Northwest was, and has continued to be, the correction of negative, incorrect, and dangerous myths and knowledge about bats. Toward that end, I have given hundreds of bat talks, walks, and presentations which have reached and re-educated thousands of people.

Time is always the most difficult problem for me, and for other presenters. Our love of bats and the need to do presentations far exceeds the time we have available for our bat volunteer activities. Many of us work during the day, and are unable to take time off to meet the need for daytime presentations. Our families are understanding only to a point.

In an attempt to find solutions to an increasing demand for bat talks, I have adopted the policy of “the biggest bang for the buck.” In other words, in my presentations I want to reach large numbers of people who are in a position to pass the knowledge along. Thus, I have had a long-standing desire to talk to park rangers in Washington state. These professionals are in a unique position to educate large numbers of citizens about bats.

To get a handle on the project, I found a list of all the State Parks. Ouch! There are dozens and dozens. Getting to them all would make a great project, but an unrealistic one at present, given the long distances between parks.

So the project languished until I received a phone call from the State Park employee in charge of setting up an in-service training for all State Park rangers. The training was scheduled to be a 3-day conference at the Warm Beach Conference Center near Stanwood, Washington. He asked if we would be interested in talking to the rangers about bats.

YEE! Most assuredly, YEE! So Curt Black, a long-time Bats Northwest volunteer and excellent presenter, and I divided up the 3 time slots we were given, and began putting together the information about bats that would be most helpful to park rangers. Included in that is a permanent poster we’ve developed for parks, which is currently only in two: Camano State Park and Easton State Park.

Our presentations were a grand success, and Park Rangers from across the state gathered information they would carry back to their parks. Many were interested in putting up our poster, and more than a few were looking forward to getting Bat Northwest volunteers to pay their parks a visit and give a presentation.

I can’t convey how satisfying it is to have finally realized this long held wish. I am confident that in the not-so-distant future, information about the benefits of our Northwest bats will be an important part of every state park visit.

Bats Northwest web site is waiting for you at: 
www.batsnorthwest.org

Join our monthly BNW Board Meetings!
Second Wednesday, 6:30-8:30
Sand Point-Magnuson Park
Building 30 Conference Room
Another Successful Bat Ambassador Training
by Michelle Noe

January saw the successful training of 25 new bat ambassadors. The group gathered at Bats Northwest's meeting space at Magnuson Park to learn about the many aspects of public education with regards to bats.

Kathleen Bander started the training day with an introduction and round-robin. Then sessions were held on basic bat facts, public health and Washington bats before an excellent lunch provided by the board.

After lunch and getting to know each other, the presentations continued. Barbara Ogaard taught the new ambassadors how to present the wealth of knowledge they'd just acquired in a way suitable for children. Then Kathleen addressed how to teach adults. After a thorough explanation of bat houses -- how to place them, and why bats need them -- the day was wrapped up with a Q&A session.

Thank you to all of our new ambassadors for attending the training session. We look forward to working with you throughout this year and on into the future. To those who couldn't attend the session in January, keep an eye on the Bats Northwest website for future training and volunteer opportunities.

Electronic Distribution
Due to high printing and mailing costs, our newsletter will now be available only electronically. If you haven't already done so, please send us your e-mail address so that we can notify you when new issues become available.

We will provide paper copies only to the few members without e-mail access.
Municipal Bat Houses: Charles Campbell and the Cultivation of Bats

By John E. Bassett

Once upon a time, in the early decades of the twentieth century in the American Southwest, bats were enlisted in the war against mosquitoes and malaria, then a major public health problem. Dr. Charles A. R. Campbell, a San Antonio, Texas, physician who treated malaria patients, became enamored with bats and all facets of their biology as well as their potential to control mosquitoes and thus malaria. He believed that bats were a natural predator of mosquitoes and that man could harness this behavior for his benefit much as we use honeybees for pollination and honey production. After much study, he concluded that bats would have to be enticed to live near people where the mosquitoes were so that all their efforts went into consuming the pest. In addition, as a practical man in a practical age, he realized that the droppings, also known as guano, could be harvested and sold as high quality fertilizer providing a financial reward in addition to a public health benefit.

Beginning in 1905, Campbell experimented in the San Antonio area with various structures designed to house bats where they would be most beneficial to man. He was searching for a design to become an effective "bat hive", which could be moved where needed and which the bats would colonize and return to on a predictable basis. His initial efforts were largely unsuccessful since the bats did not find his offerings attractive. By 1910, Campbell became discouraged by his lack of success and temporarily closed his medical practice. After reconsidering his assumptions about what was attractive to bats during a sabbatical in the hill country around San Antonio, he concluded that he should build his next bat roost near water.

In early 1911, Dr. Campbell began construction of a redesigned roost structure at Mitchell Lake about 10 miles south of San Antonio (see Figure 1). At the time, this lake served as a natural segregation of the mosquito population. The local population, mostly poor Mexican-Americans, also suffered a high incidence of malaria. In the spring of 1911 as the roost was constructed, Campbell examined the residents living near the lake and reported that 78 of 87 adults and children showed clinical symptoms of malaria.

By the late summer of 1911, the recently constructed bat roost actually had a few chiropteran residents, which represented a big improvement over Campbell's previous efforts. Not to rest on this meager success, he set about convincing other local bat colonies to relocate to his new accommodations employing a variety of harassing techniques to drive the animals out of the locals. By 1910, Campbell's roost was producing between 3,000 and 5,000 pounds of high quality guano each year, and the bats would colonize and return to on a predictable basis. His initial efforts were largely unsuccessful since the bats did not find his offerings attractive. By 1910, Campbell became discouraged by his lack of success and temporarily closed his medical practice. After reconsidering his assumptions about what was attractive to bats during a sabbatical in the hill country around San Antonio, he concluded that he should build his next bat roost near water.

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“Bat”

By D.H. Lawrence

At evening, sitting on this terrace. When the sun from the west, beyond Psia, beyond the mountains of Carrara Departs, and the world is taken by surprise...

When the tired flower of Florence is in gloom beneath the glowing Brown hills surrounding...

When under the arches of the Ponte Vecchio A green light enters against stream, flush from the west, Against the current of obscure Arno...

Look up, and you see things flying Between the day and the night. Swallows with spoons of dark thread sewing the shadows together.

A circle swoop, and a quick parabola under the bridge arches Where light pushes through. A sudden turning upon itself of a thing in the air. A dip to the water.

And you think: "The swallows are flying so late!"

Swallows?

Dark air-life loop ing Yet missing the pure loop ... A twitch, a twitter, an elastic shudder in flight And serrated wings against the sky. Like a glove, a black glove thrown up at the light. And falling back. Never swallows! Bats?

The swallows are gone. At a waving instant the swallows gave way to bats By the Ponte Vecchio Changing guard.

Bats, and an uneasy creeping in one's scalp As the bats sweep overhead! Flying maddly. Pipistrello! Black pipe on an infinitesimal pipe. Little lumps that fly in air and have voices indefinite, wildly vindictive; Wings like bits of umbrella. Bats?

Creatures that hang themselves up like an old rag. to sleep. And disgustingly upside down. Hanging upside down like rows of disgusting old rags And grinning in their sleep. Bats?

Not for me!

Do you have a great bat story? Have you been involved in a project to help bats? Would you like to see your story in print? Please send stories and photos to info@batsnorthwest.org

Our Mission

Bats Northwest Envisions a Future . . .
Where the Essential Role of Bats is
Understood
Where the Public Recognizes the Vital Place
of Bats In Our Environment
and Economy
Where all are Inspired by the Remarkable Attributes
and Invaluable Contribution of Bats to
Our Natural Heritage
There are 15 bat species known to live in Washington. The tiniest of these is the Western Pipistrelle. Not only are they the smallest bats in the state, but they are also the smallest bats in North America! At 2 to 6 grams they weigh only slightly more than a penny, and with their wings spread are only about the width of a human hand. They have a surprising physical appearance with “blonde” silky fur, black face and ears, and relatively large eyes. They range from Washington, Colorado, western Oklahoma and Texas, through the southwestern United States and into Mexico. They are also found in Baja California and throughout the mainland as far south as the central states of Michoacan and Hildago. These bats generally live in arid deserts and canyons, typically in crevices in cliff faces. It has been suggested that they also occupy rodent burrows in the ground. They can also be found in some woodlands and shrublands, where they roost among boulders in cracks and crevices. They tend to come out early, often before sunset, and forage from 2 to 15 meters above ground on small, swarming insects, consuming about 20% of their weight in insects per night. The type of insects they eat include caddis-, stone-, and house-flies; moths, bugs, and beetles.

Western Pipistrelles are reported to be highly social and intelligent. In terms of roosting habits, however, they generally do not form large nursery or bachelor colonies. Maternity colonies of up to a dozen individuals have been observed, and like many other bat species, they prefer warmer locations. Males are typically found roosting alone. These bats do not seem to migrate far and may stay in the same area year-round. They may hibernate in mines and caves during the winter season. Females are rarely active in winter and are never active when temperatures are below freezing. However, males have actually been observed in flight in below-freezing temperatures, probably in search of water, which is an important resource in their arid environment.

Most Western Pipistrelles mate in late September or early October, before they enter winter hibernation. Sperm are stored in female reproductive tracts until spring, when mothers become pregnant in April or May. Unlike most other species of bats, Western Pipistrelles usually give birth to TWINS in June or July. The young can fly within a month but do not reach maturity until they are two years old. Banding records have shown adult survival up to at least six years.

To observe the Western Pipistrelle in Washington State, look for them east of the Cascades and along the Columbia and Snake Rivers. They emerge early in the evening, sometimes as much as two hours before sunset, and may be active after sunrise. For those of you who own a bat detector, the recommended frequency to hear these bats while they hunt is a bit higher than usual, probably up to 60 to 70 kHz.

... or is it Western Parastrelle?

Recently, the Western Pipistrelle went through a name and classification change. Since many of us haven’t taken Biology since high school, or maybe college, we could probably all use a little review. Maybe you remember the term “taxonomy,” which generally refers to the classification of living organisms within ranked levels. For all bats, it reads like this: Kingdom: Animalia, Phylum: Chordata, Class: Mammalia, Order: Chiroptera. For the Western Pipistrelle specifically, its taxonomy continues like this (simplified): Suborder: Microchiroptera, Family: Vespertilionidae, Genus: Pipistrellus, Species: hesperus. There are many different bats classified under the genus Pipistrellus, with only two species found in the United States: the Eastern Pipistrelle and the Western Pipistrelle. However, since the mid-1990s researchers have shown that these two bats do not share a common ancestry with true Pipistrellus (such as the Common Pipistrelle of Europe) or with each other. According to various studies comparing everything from dental and penial characteristics to DNA, the Eastern Pipistrelle should be placed in a genus called Perimyotis and the Western Pipistrelle should be classified under a separate genus called Parastrellus (para – aside from, strellus – referring to Pipistrellus). In a recent article in the Journal of Mammalogy, a group of scientists presented the evidence supporting these changes and provided a formal description of the new Parastrellus genus, which was required by the International Code of Zoological Nomenclature in order to make the name change official. (Hoofer, Van Den Busche, and Horáèek 2006)

In the taxonomy world, name changes can be slow to take effect. If you would like to learn more about the Western Pipistrelle, most of the information available on the Internet is still found under the scientific name Pipistrellus hesperus.

Bats NorthWest at the Flower & Garden Show 2007

by Michelle Noe

After an excellent Bat Ambassador Training session in January, it was time for the new ambassadors to test their bat knowledge at the Flower & Garden Show, February 14-18, at the Convention Center in downtown Seattle. New ambassadors and old had the opportunity to spread the wonders of bats to gardeners and outdoor enthusiasts from across Washington state, British Columbia, Oregon, Idaho and beyond.

Bat house plans flew off of the table and many gardeners received tips on how to improve their gardens and properties for bats.

Thank you to all of our wonderful volunteers who helped to make the show a success and to everyone that dropped by the booth.
Featured Bat: The Western Pipistrelle
by Heather Galvin

There are 15 bat species known to live in Washington. The tiniest of these is the Western Pipistrelle. Not only are they the smallest bats in the state, they are also the smallest bats in North America! At 2 to 6 grams they weigh only slightly more than a penny, and with their wings spread are only about the width of a human hand. They have a surprising physical appearance with “blonde” silky fur, black face and ears, and relatively large eyes. They range from Washington, Colorado, western Oklahoma and Texas, through the southwestern United States and into Mexico. There they are found in Baja California and throughout the mainland as far south as the central states of Michoacan and Hildago. These bats generally live in arid deserts and canyons, typically in crevices in cliff faces. It has been suggested that they also occupy rodent burrows in the ground. They can also be found in some woodlands and shrublands, where they roost among boulders in cracks and crevices. They tend to come out early, often before sunset, and forage from 2 to 15 meters above ground on small, swarming insects, consuming about 20% of their weight in insects per night. The type of insects they eat include caddis-, stone-, and house-flies; mosquitoes; flying ants; and many kinds of moths, bugs, and beetles.

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In early 1911, Dr. Campbell began construction of a redesigned roost structure at Mitchell Lake about 10 miles south of San Antonio (see Figure 1). At the time, this lake served as the open sewage lagoon for the city of San Antonio receiving 10-15 million gallons of wastewater a day. Located in an area of relatively flat topography, the lake and its surroundings were marshy due to constant overflow and thus produced abundant mosquitoes. So many of the biting insects inhabited the area that local farmers were often unable to work their land, their domestic livestock did not thrive, and their horse teams were often spooked by the great clouds of hungry mosquitoes. The local population, mostly poor Mexican-Americans, also suffered a high incidence of malaria. In the spring of 1911 as the roost was constructed, Campbell examined the residents living near the lake and reported that 78 of 87 adults and children showed clinical symptoms of malaria.

By the late summer of 1911, the recently constructed bat roost actually had a few chiropteran residents, which represented a big improvement over Campbell’s previous efforts. Not to rest on this meager success, he set about convincing other local bat colonies to relocate to his new accommodations employing a variety of harassing techniques to drive the animals out of their old roosts. The most unique of these techniques was to loudly play a recording of the “Cascade of Roses” waltz by the Mexico City Police Band as the bats returned to their roost in the morning. The loud, dissonant composition was very successful at getting the bats to abandon their buildings and to move to the newly erected bat roost.

During the tumultuous decade from 1911 through 1920, the bat population in Campbell’s “Malaria-Eradicating, Guano-Producing Bat Roost” increased substantially, the mosquito population declined drastically as judged by the local residents, and malaria cases among these farm families became non-existent. On the practical side of the ledger, beginning in 1917 the Mitchell Lake bat roost produced between 3,000 and 5,000 pounds of high quality guano each year well into the 1940’s (see Figure 2). Dr. Campbell was recognized world wide for his use of bats in the fight against malaria and was even nominated for the Nobel Prize for his work in 1919. The State of Texas also recognized Campbell in 1917 by passing a law protecting bats, making it a misdemeanor to harm them within the state.

The claims made by Campbell for a reduction in malaria around Mitchell Lake because of the bat’s feeding activities were anecdotal by current scientific standards and were also disputed by some of his contemporaries. The primary resident of the bat house, the Mexican free-tailed bat (Tadarida brasiliensis), is currently known to feed mostly on moths and beetles with mosquitoes and other flies composing less than five percent of the diet. Today this bat would not have much of an impact on the mosquito population. We will never know, however, whether the

By D.H. Lawrence

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When the tired flower of Florence is in gloom beneath the glowing Brown hills surrounding ...

When under the arches of the Ponte Vecchio A green light enters against stream, flush from the west, Against the current of obscure Arno ...

Look up, and you see things flying Between the day and the night, Swallows with specks of dark thread sewing the shadows together. A circle swoop, and a quick parabola under the bridge arches Where light pushes through, A sudden turning upon itself of a thing in the air, A dip to the water.

And you think: “The swallows are flying so late!” Swallows? Dark air-life looping Yet missing the pure loop ... A twitch, a twitter, an elastic shudder in flight And serrated wings against the sky, Like a glove, a black glove thrown up at the light, And falling back.

Never swallows! Bats! The swallows are gone. At a wavering instant the swallows gave way to bats By the Ponte Vecchio Changing guard. Bats, and an uneasy creeping in one’s scalp As the bats sweep overhead! Flying muddily. Pipistrello! Black pipiper on an infinitesimal pipe. Little lumps that fly in air and have voices indefinite, wildly vindictive; Wings like bits of umbrella. Bats! Creatures that hang themselves up like an old rag, to sleep, And disgracefully upside down. Hanging upside down like taws of disgusting old rags And grinning in their sleep.

Bats? Not for me!
Another Successful Bat Ambassador Training

by Michelle Noe

January saw the successful training of 25 new bat ambassadors. The group gathered at Bats Northwest’s meeting space at Magnuson Park to learn about the many aspects of public education with regards to bats.

Kathleen Bander started the training day with an introduction and round-robin. Then sessions were held on basic bat facts, public health and Washington bats before an excellent lunch provided by the board.

After lunch and getting to know each other, the presentations continued. Barbara Ogaard taught the new ambassadors how to present the wealth of knowledge they’d just acquired in a way suitable for children. Then Kathleen addressed how to teach adults. After a thorough explanation of bat houses – to place them, and why bats need them -- the day was wrapped up with a Q&A session.

Thank you to all of our new ambassadors for attending the training session. We look forward to working with you throughout this year and on into the future. To those who couldn’t attend the session in January, keep an eye on the Bats Northwest website for future training and volunteer opportunities.

Ambassadors learn about presenting to children

Electronic Distribution

Due to high printing and mailing costs, our newsletter will now be available only electronically. If you haven’t already done so, please send us your e-mail address so that we can notify you when new issues become available.

We will provide paper copies only to the few members without e-mail access.

206.256.0406
www.batsnorthwest.org
**Bats Northwest News**

**A Dream Finally Realized**

by Kathleen Bander

My main motive for founding Bats Northwest was, and has continued to be, the correction of negative, incorrect, and dangerous myths and knowledge about bats. Toward that end, I have given hundreds of bat talks, walks, and presentations which have reached and re-educated thousands of people.

Time is always the most difficult problem for me, and for other presenters. Our love of bats and the need to do presentations far exceeds the time we have available for our bat volunteer activities. Many of us work during the day, and are unable to take time off to meet the need for daytime presentations. Our families are understanding only to a point.

In an attempt to find solutions to an increasing demand for bat talks, I have adopted the policy of “the biggest bang for the buck.” In other words, in my presentations I want to reach large numbers of people who are in a position to pass the knowledge along. Thus, I have had a long-standing desire to talk to park rangers in Washington state. These professionals are in a unique position to educate large numbers of citizens about bats.

To get a handle on the project, I found a list of all the State Parks. Ouch! There are dozens and dozens. Getting to them all would make a great project, but an unrealistic one at present, given the long distances between parks.

So the project languished until I received a phone call from the State Park employer in charge of setting up an in-service training for all State Park rangers. The training was scheduled to be a 3-day conference at the Warm Beach Conference Center near Stanwood, Washington. He asked if we would be interested in talking to the rangers about bats.

YEEY! Most assuredly, YES! So Curt Black, a long-time Bats Northwest volunteer and excellent presenter, and I divided up the 3 time slots we were given, and began putting together the information about bats that would be most helpful to park rangers. Included in that is a permanent poster we’ve developed for parks, which is currently only in two: Camano State Park and Easton State Park.

Our presentations were a grand success, and Park Rangers from across the state gathered information they would carry back to their parks. Many were interested in putting up our posters, and more than a few were looking forward to getting Bat Northwest volunteers to pay their parks a visit and give a presentation.

I can’t convey how satisfying it is to have finally realized this long-held wish. I am confident that in the not-so-distant future, information about the benefits of our Northwest bats will be an important part of every state park visit.

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Join us in the adventure to learn more about our bat neighbors!

Membership Options: □ $35 □ $50 □ $75 □ $100 □ Other $_________________

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Bats Northwest web site: www.batsnorthwest.org

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**Join our monthly BNW Board Meetings!**

Second Wednesday,
6:30-8:30
Sand Point-Magnuson Park
Building 30 Conference Room

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**Bats Northwest web site is waiting for you at:**

www.batsnorthwest.org