

Volume 13

Issue 2

Summer/Fall 2009

SHOOTING THE BREEZE

A Publication of Bull Run Mountains Conservancy, Inc.

HALLOWEEN SAFARI: October 17, 23 & 24

Be apart of our biggest event of the year – Halloween Safari! BRMC wants to take you on a night-time hike through the Bull Run Mountains! A guide will lead you along the trail where you will meet native “wildlife” that perform natural history skits. There is a new cast of animals each year, so don't miss it! Join us for face painting, Halloween snacks, hot cider, a bonfire, and live music.



Bring a flashlight and wear good hiking shoes.

\$7 in advance/\$10 at the door
Pre-registration required for 7:00-8:00 p.m. time slots.

First-come, first-served from 8:00-8:30 p.m.

Volunteers needed, and donations and sponsors welcome.

Contact us at (703) 753-2631, or info@brmconservancy.org.

PRE-REGISTRATION FOR HALLOWEEN SAFARI

This fall we will try something new. In order to make everyone's experience of Halloween Safari as pleasant as possible, we will ask attendees to pre-register for certain time-slots. This will allow the flow of traffic and people throughout the night to be more steady and thus result in a more relaxing and enjoyable experience for all.

Come pre-register your family and friends for the event and save money! Tickets are \$7 in advance and \$10 at the door. Pre-registration will take place on

Saturday, September 26
10:00 A.M.—4:00 P.M.

at the Mountain House located at
17405 Beverley Mill Drive
Broad Run, Virginia

*Halloween Safari is a rain or shine event

*Pre-registrations are non-refundable/non-exchangeable

*Pre-registrations are on a first-come, first-served basis

Pre-Register for Halloween Safari in person on September 26, **OR** fill out and return this form to BRMC.

We will contact you to confirm your pre-registration after we receive your information.

HALLOWEEN SAFARI Pre-Registration

Name/Group: _____

Phone: _____

Circle One:

Saturday, Oct 17 Friday, Oct 23 Saturday, Oct 24

Preferred Start Time of Hike. Circle One:

7:00-7:15 7:15-7:30 7:30-7:45 7:45-8:00 8:00-8:15

Number of People: _____

Total Amount Enclosed? (\$7/person in advance) _____

Make check payable to BRMC.

*Halloween Safari is a rain or shine event

*Pre-registrations are non-refundable/non-exchangeable

*Pre-registrations are on a first-come, first-served basis

Mail to:

BRMC

P.O. Box 210, Broad Run, Virginia 20137

In the Good Ol' Summertime

This summer has been a fun and exciting time at BRMC! Almost 300 youth have participated in our programs, workshops, and camps. During these events, we have seen a wide variety of animals including:

American Toad, Green Frog, Wood Frog, Tree Frog, Eastern Red Spotted Newt, Red Eft, Slimy Salamander, Redback Salamander, Red Salamander, Spring Salamander, Dusky Salamander, Two-Lined Salamander, Spotted Salamander, Garter Snake, Ring-neck Snake, Rattlesnake, Copperhead, Black Rat Snake, Black Racer, Hognose Snake, plus many birds, butterflies, insects, and macro-invertebrates.

This summer was also the year-of-the-intern! These eight students helped us out with everything from finding animals in the field, to building fences and planting the garden. We sincerely want to thank **James Bonaffini, Nick Bonaffini, JoAnna Dressel, Catherine Lamb, Audrey Ramsey, Daniel Richard, Anna Ritter, and Jillian Swinford** for all of their hard work!

Congratulations to our REI scholarship winners for Herpetology Camp: **Jake McAuliffe, Ally Paoli, Chris Parios, Charlotte Quinn, Lucas Quinn, Chet Walker, and Maddy Walker**

Congratulations to our REI scholarship winners for Pre-School Nature Camp: **Cassandra Garrison, Michaela Kieffer, Andy Quinn, and Jake Reninger**

Congratulations to our REI scholarship winners for Summer Nature Camp: **Campbell Baker, Connor Baker, Andrew Page, Jillian Page, Sarah Saas, and Scott Saas**



Pre-School Nature Camp

Research Square...

By Michele Thieme

Fire Lizards

The word "salamander" means fire lizard when translated from its Greek origin. Humans likely gave them this name when they repeatedly saw salamanders scurry out from rotting logs that were thrown into a fire. Thus, the myth arose that salamanders were created from fire and humans gave them the common name that has stayed with them for centuries.

Further south in the Appalachian Mountains, scientists have recently discovered a new species of salamander. It is a rare event to discover a new genus in North America -- in fact, it is the first time in nearly 50 years that a new genus of salamander -- for that matter, any four-footed vertebrate -- has been discovered in the US. With upwards of 60 species of lungless salamanders, the southern Appalachians are considered a global hotspot for salamander diversity. North America has the greatest diversity of salamanders of any continent -- nine of the ten



families of salamanders occur here. The cool moist conditions in these mountain headwaters and the refuge that they provided during the last Ice Age has led to this high diversity.

The new species is tiny -- measuring only 1 inch -- just a tad longer than a quarter is wide. It is called the patch-nosed salamander (*Urspeleperes brucei*) for the yellow patch on its head. It retains all five toes, unlike most other small species that have only four. Only eight individuals have thus far been found and its natural history is still a mystery to science. Many species from the same family -- including the two-lined, redback, red, and spring salamanders inhabit the streams and woodlands of the Bull Run Mountains. This summer our own young crew of scientists-in-training discovered these species and more in their explorations on the mountain. We look forward to next summer's expeditions and continuing to grow the sense of wonder that eventually leads to discoveries such as that of the patch-nosed salamander.

T. Lamb

Bull Run Mountains Conservancy Public Programs 2009

HIKE WITH A NATURALIST

1st Wednesday of Every Month

9a.m.—11a.m.

Our first Wednesday of the month hike for those members and nonmembers who prefer to hike in a group. Come and discover some of the flora and fauna of the Bull Run Mountains.

This program is free; all are welcome.

MOUNTAIN MOONLIGHT WALK

September 19th—Saturday

7 p.m.—10 p.m.

Join a BRMC naturalist as we hike up the moonlit mountains. You will learn about the moon and its phases while we enjoy wine and snacks at the top. On our descent we will walk along Catlett's Branch and enjoy the sights and sounds of the moonlit stream.

Pre-registration required.

Members: \$15/non: \$20.

CYPRESS BRIDGE SWAMP

October 3rd—Saturday 8a.m—8p.m.

Take a field trip with a BRMC naturalist to the newest Virginia State Natural Area Preserve—Cypress Bridge Swamp. The 380-acre preserve along the Nottoway River is home to some of Virginia's largest trees, with some reaching 100 feet tall and 12 feet wide. The preserve also includes the previous record-holder of Virginia's largest tree: the bald cypress called "Big Mama", which is now deceased but should remain standing for decades. We will meet at the Mountain House and then carpool to the Cypress Bridge Swamp, about a 3-hour trip. Bring snacks, water, and lunch for the day. Wear shoes that can get wet and muddy. This field trip is weather-dependent and may be canceled and/or rescheduled on short notice.

Pre-registration required.

Members: \$50/
non: \$60.



HALLOWEEN SAFARI

October 17th—Saturday, 7—8:30 p.m.

October 23rd—Friday, 7—8:30 p.m.

October 24th—Saturday, 7—8:30 p.m.

BRMC wants to take you on a night-time hike through the Bull Run Mountains! Join us for face painting, Halloween snacks, hot cider, a bonfire, and live music. All participants should bring a flashlight and wear good walking shoes.

Pre-registration required for 7:00-8:00 p.m. time slots.

First-come, first-served from 8:00-8:30 p.m.
\$7 in advance/\$10 at the door

TODDLIN' ALONG THE BULL RUN MOUNTAINS

November 3rd—Tuesday 10:00—noon

This is a chance for toddlers and pre-school aged children to enjoy the beautiful fall colors of the mountain. We'll start with a few hands-on activities at the Mountain House and then we'll head out in the field to discover nature using all five senses.

Appropriate for ages 3-6.

Pre-registration required.

Members: \$10/non: \$15.

OLD HOME SITES

November 14th—Saturday 8:30—11a.m.

BRMC is thrilled to continue our exploration of old home sites with an extra treat. Go beyond the trails as we explore cemeteries, foundations, and clearings that mark past residences. Then sit back and enjoy a hot breakfast in the woods as local historian Marcia Markey performs a historical reenactment based on diaries, letters, and other primary sources. Space is limited and spots fill early.

Pre-registration required.

Members: \$25/non: \$30.

WINTER NATURE CAMP

December 28-29—Monday and Tuesday

9a.m.—4 p.m.

Join BRMC for a winter adventure and learn more about the winter woods. Birds are more easily seen in leafless trees and sounds are magnified in the winter stillness. Dress for the weather—snow makes these camps all the more fun. Appropriate for children ages 7-12.

Pre-registration required.

Members: \$100/non: \$150.

Autumn Heat

By Michael Kieffer

We all think of animals taking in oxygen and plants taking in carbon dioxide. We forget that plants respire as well. There is something known as the ZC date (zero-crossing date) line that delineates in the spring when plants begin growth and become carbon sinks and then in the autumn when they become carbon producers or are no longer carbon sinks. In summer, plants are buffering our carbon emissions through photosynthesis and in the winter our emissions are building.

It has been hoped that with increasing temperatures the growing season would begin sooner and last longer. It was theorized that the ZC date would come earlier in the spring and later in the autumn. The growing season would expand and the winter season would diminish. From a study published in *Nature*, this appears to be a wrong assumption, at least in the northern hemisphere. What a team of scientists discovered is that while the ZC date has on average come 0.4 days earlier per year it has been cancelled out by carbon releases in the autumn. Increased autumn plant respiration triggered by warmer average temperatures outweighs any photosynthetic gains in autumn and this increased respiration is effectively offsetting 90% of the increased carbon uptake in the spring. In essence, rising temperatures have changed the ZC dates but the net result is the same (Piao et al. 2008)

The future is uncertain. If spring temperatures rise faster than those in autumn, sinks could get larger, if autumn temperatures rise faster than spring temperature, sinks could diminish. In Europe, the average spring temperature is rising faster than the average autumn temperature, but in North America the average autumn temperature is rising faster than the average spring temperature.

During any given year, it is believed that 50% of our carbon emissions have been offset by plants summer photosynthetic production over the last 20 years. Everybody has hoped that warmer temperatures would extend the summer plant carbon sink, but it does not seem to be the case in the northern hemisphere where this study was conducted.

We always speak about recycle, reuse, and reduce. Recycling and reusing both take energy. The only true carbon neutral approach is to reduce. The earth has developed in a way to maintain a homeostasis. It is illogical to think that plants will adapt to offset our abuses.

References: Piao, Shilong et al. Net carbon dioxide losses of northern ecosystems in response to autumn warming. *Nature* **451**, 49-52 (2008).



To register for a program, fill out the form below and mail with your payment to:

Bull Run Mountains Conservancy, P.O. Box 210, Broad Run, VA 20137

For more information, call us at (703) 753-2631 or visit our web site at www.brmconservancy.org.

Name _____

Address _____

City/ZIP _____

Home phone _____

Work phone _____

E-mail _____

Are you a BRMC member? _____

No. of people registering _____

Fee _____

Amount enclosed _____

Name of child if registering for youth camp _____

Mountain Moonlight Walk,
September 19, Members \$15/Non \$20

Cypress Bridge Swamp
October 3, Members \$50/Non \$60

Toddlin' Along the Bull Run Mountains
November 3, Members \$10/Non \$15

Old Home Sites
November 14, Members \$25/Non \$30

Winter Nature Camp
December 28-29, Members \$100/Non \$125



Trail Talk

By Jennifer Helwig

Thanks to grant funds provided by the Chesapeake Bay Restoration Fund, BRMC awarded 14 scholarships to our newest summer program—the Chesapeake Watershed Workshop. The workshop was very successful and really fun! Each day we went to a different stream location in the Chesapeake Bay watershed, including Barton’s Creek, Little Bull Run, Turkey Run, and the Potomac River. We performed vegetation and habitat analysis at each location, and we found and identified as many macro-invertebrates as we could. By the end of the workshop, we all knew the differences between Mayflies, Stoneflies, Caddisflies, riffle beetles, water pennies, dragonflies, leeches, plus many others.

In a few weeks, I will no longer serve as BRMC’s naturalist and resource manager. My time here has been full of unique opportunities and experiences that have truly opened my eyes to the diversity of “life.” Whether it was collecting moths, identifying wildflowers, feeding the snakes, or watching the baby wrens fledge from our porch—amazing life is all around us, all the time. I hope that I can always take the time to enjoy it, as I have been able to do here on the mountain.

Our two cats are very sad to leave the Mountain House. They will miss climbing through the ceiling rafters and chasing all the critters—this is their dream home! I like to think that I’m not leaving BRMC, I’m just transitioning to another position— volunteer! Ben and I thank Michael, BRMC, and all the volunteers and interns for making this a very wonderful year of our life.

See you on the trails...

Congratulations to the **Chesapeake Watershed Workshop Scholarship winners**, funded by the Chesapeake Bay Restoration Fund.

- Tina Assadpour*
- Alex Dean*
- JoAnna Dressel*
- John Gogal*
- Kristin Gogal*
- McKinley Groves*
- Lucas Quinn*
- Audrey Ramsey*
- Anatevka Ribeiro*
- Daniel Richard*
- Anna Ritter*



Volunteer at BRMC!

WEEKEND WARRIORS

We need volunteers to hike on the preserve on the weekends. Duties will include assisting hikers with questions or directions, reminding hikers of the guidelines of the preserve, and providing a general presence for the Conservancy. All ages are welcome. This is a great opportunity to enjoy the outdoors while serving and representing Bull Run Mountains Conservancy.

HALLOWEEN SAFARI

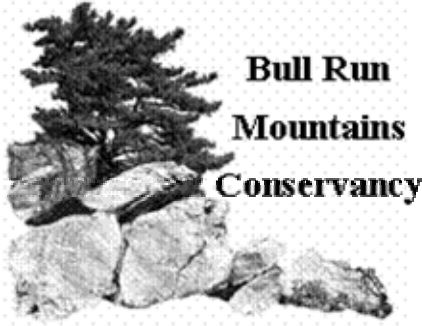
Our most popular event requires many volunteers. This event takes visitors on a night-time hike through the Bull Run Mountains and includes a bonfire, live music, and snacks. We need trail guides, face painters, musicians, set-up and tear-down crews, and many others.

ADOPT-A-TRAIL

Attention Scouts and Volunteer Groups: Looking for an on-going project where you can take ownership and get your hands dirty? Become apart of Bull Run Mountains Conservancy’s Adopt-a-Trail program. Your group will be assigned the responsibility of maintaining one trail at BRMC throughout the year.

Check out Prince William County’s volunteer opportunities, special projects, and events at www.pwcgov.org/green and click on Take Action.

If you are interested in becoming a volunteer, contact BRMC at 703-753-2631 or info@brmconservancy.org



**Bull Run
Mountains
Conservancy**

Education · Research · Stewardship

P.O. Box 210 Broad Run, Virginia 20137
(703) 753-2631 - www.brmconservancy.org

Yes, I would like to become a member of Bull Run Mountains Conservancy.

Name _____
 Organization _____
 Address _____
 Phone _____ E-mail _____
 Referred by _____

- | | | |
|---|--|---|
| <input type="checkbox"/> \$15 Student | <input type="checkbox"/> \$20 Senior | <input type="checkbox"/> \$25 Individual |
| <input type="checkbox"/> \$35 Family | <input type="checkbox"/> \$75 Group | <input type="checkbox"/> \$100 Sustainer |
| <input type="checkbox"/> \$300+ Leadership | <input type="checkbox"/> \$1,000+ Benefactor | <input type="checkbox"/> \$1,000+ Corporate |
| <input type="checkbox"/> \$5,000+ Conservation Patron | <input type="checkbox"/> Other _____ | |

Please make your tax-deductible contribution to:
Bull Run Mountains Conservancy, Inc., P.O. Box 210, Broad Run, VA 20137

Bull Run Mountains Conservancy is a membership driven organization.

Become a member today and support our programs and support the public preserve. Your membership provides BRMC necessary funds to operate and shows our foundation and corporate supporters that the public values and appreciates the resource.

Membership Benefits:

- Support environmental and historical programs for all ages
- Support research and management of the natural area
- Discounts on all public programs and trips
- Quarterly newsletter including our program calendar

Join today at www.brmconservancy.org

Bull Run Mountains Conservancy	2009 Calendar of Events
September 19	Mountain Moonlight Walk
October 3	Cypress Bridge Swamp
October 17, 23, and 24	Halloween Safari
November 3	Toddlin' Along the Bull Run Mountains
November 14	Old Home Sites
December 28-29	Winter Nature Camp
Unless otherwise noted, all programs and events will meet at the BRMC Mountain House at 17405 Beverley Mill Drive in Broad Run, Virginia, across from the Bull Run Mountain State Natural Area Preserve trailhead.	<p>Directions: Take I-66 to Haymarket exit. Go south on Rt. 15. Go west on Rt. 55 for 2.7 miles. Turn right on Turner Rd., then left on Beverley Mill Dr. to the Mountain House 3/4 mi. on left. Call (703) 753-2631 for more information or visit our Web site at www.brmconservancy.org</p>