This newsletter was produced by the Bridging the Watershed staff at the Alice Ferguson Foundation. Submissions are welcomed from all readers. Please send content to Jeanne Troy (jtroy@fergusonfoundation.org).

Bridging the Watershed

An Outreach Program of the Alice Ferguson Foundation in Partnership with the National Park Service and Area Schools

By The Way...

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Think Field Studies!

Scheduling Time is Here
With summer winding down, Bridging the Watershed is ready to switch into field study mode once again. School will be back in session soon, and the weather will be perfect for learning outside. Fall has become our busiest field season, and we look forward to reconnecting with the teachers and rangers who make this program great! Field study requests are already coming in. Because Bridging the Watershed is a partnership between several organizations, it’s best to contact us 6 to 8 weeks in advance – that way we have time to bring together all of our partners. If you would like a fall field study, now is the time to visit our website and send in a scheduling request: www.bridgingthewatershed.org/schedule_fieldstudy.php

Teacher Training

BTW Ranger Workshop at Prince William Forest Park

This past June the BTW team enjoyed our first “Minstitute”, graciously hosted by the rangers at Prince William Forest Park. Seven participants from Prince William, Manassas National Battlefield, and Loudoun County Public Schools attended a two-day training of our most popular modules - Water Canaries and Watershed Watchdogs. The sweltering heat didn’t quell the enthusiasm of the participants, who, in addition to getting hands-on experience with BTW field studies, enjoyed taking a tour of Prince William’s abandoned pyrite mine, a site that will be featured in a future BTW park-specific module.

Ranger Hank Elliot from Manassas National Battlefield Park marvels at the critters on his seine net.

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10th Annual BTW Summer Teacher/Ranger Institute
Bridging the Watershed’s 10th Annual Teacher Institute held a small but highly motivated crew of teachers clearly committed to incorporating hands-on environmental education in their metro DC classes. The 2007 institute was comprised of seven teachers from the District of Columbia, Prince George’s County, Fairfax County, and Loudoun County, who were able to visit 5 parks from the National Capitol Region as well as the Alice Ferguson Foundation’s headquarters at the beautiful Hard Bargain Farm Environmental Center in Accokeek MD.

The teachers’ passion was met by an equally enthusiastic set of NPS rangers who served as ambassadors for their individual parks. Each ranger provided a unique and impressionable tour of the natural and cultural histories of their site, and assisted the BTW staff and teachers with field studies. At the end of their two week training, each teacher received copies of the BTW curriculum and looked forward to getting their students in the field this fall.

4th Annual BTW Harpers Ferry Institute
A record number of teachers from Frederick, Loudoun, Berkeley and Jefferson Counties attended the 4th Annual Harper’s Ferry Institute, making it the most successful one to date! Beautiful weather greeted the enthusiastic teachers for a week-long training that included an introduction to BTW’s Water Power module, created specifically for Harper’s Ferry, and an incredible hiking tour of Harper’s Ferry that included a stop at Jefferson Rock, allowing providing wonderful vistas of the town ideally situated at the confluence of the Shenandoah and Potomac rivers.

In addition to conducting trainings at Harper’s Ferry, the teachers continued their trainings by visiting Monocacy National Battlefield Park. There they enjoyed touring the park as well as visiting the fantastic NEW visitor’s center, which boasts not only a great view of the battlefield, but many interactive exhibits on the pivotal Civil War battle that took place there. Both parks are excited and eager to have BTW students visit in the upcoming school year and a special note to teachers that Monocacy is an ideal place for students to come for Water Canaries modules! A warm “Thank You” is sent to both parks for hosting the institute. See you in the fall!

Monica Wilson and Gail Finnix, both from Freedom High School in South Riding, VA, assess the habitat of Bush Creek at Monocacy National Battlefield.

Thanks for spending your summer with Bridging the Watershed!
Bridging the Watershed strives to be a teaching tool for both the natural and cultural history of our regional National Parks. We continue to encourage rangers from both the Natural Resources and Interpretive programs to participate in Bridging the Watershed! Check out www.bridgingthewatershed.org/ec_teacher_training.html for a list of fall training opportunities. NPS Rangers and all high school teachers are welcome to attend any of the trainings – even if they are hosted by a specific school district.

We Love Our Work!

Goodbye, Matt!

We can hardly believe it, but the end of summer means the end of Matt Curtis’ time with Bridging the Watershed. Matt spent three and a half years bringing his experience as a field biologist in the Midwest to thousands of students from the Washington, D.C., Metro area. We will miss his constant silly sense of humor – sometimes it was hard to tell who was in high school! He left a mark on the BTW program, as I’m sure we will continue to sing field study songs, and tell tales of huge heliomellite earrings. Matt will continue his education in the Master of Environmental Biology program at Hood College in Frederick, MD. He promises to come back and see us for special events like the Oktoberfest and Potomac River Watershed Cleanup, so visit Hard Bargain Farm if you want to bump into him.

Hello, Anna!

Never fear, Anna Wadhams is here! Bridging the Watershed staff first met Anna during a week-long BTW Ranger Training workshop, after which she spent the fall season of 2005 assisting with BTW field studies all along the George Washington Memorial Parkway, in her capacity as a Student Conservation Association intern at that park. When we heard she was leaving her hometown in Michigan for an East Coast job hunt, we jumped at the chance to bring her to the farm! For the past 18 months, Anna has been with the Alice Ferguson Foundation wearing three different hats: Naturalist for the Hard Bargain Farm program, Coordinator of the 19th Annual Potomac River Watershed Cleanup, and part-time BTW Educator. We are so happy to have her on as a full-time educator now, and you can be sure that students will have a fantastic time with Anna as she leads them through our beautiful National Parks.

NOTE: Teachers for whom Matt was their BTW contact can now reach Anna at awadhams@fergusonfoundation.org or by phone: (301) 292-3476 in the office or (301) 752-2856 in the field

Fun For Students

No Intern Left Inside!

Twice this summer, Bridging the Watershed visited with two Student Conservation Association (SCA) interns, Hilary Becker and Laura Pendleton. SCA offers a huge variety of internship programs with the National Park Service and other agencies that would be fantastic opportunities for BTW high school students. NPS partners, if you don’t already work with SCA interns, consider them as you discover new conservation needs in your parks. Teachers and rangers - check out what Hilary and Laura have to say, then check out www.thesca.org for more info!
This summer we participated in the fifth year of a volunteer stream monitoring program occurring at the George Washington Memorial Parkway. Both of us acquired internship positions through the Student Conservation Association. This program puts people in conservation internships all around the country. We monitored seven streams that are all part of the Potomac Watershed. We spent our summer in the field gathering macroinvertebrates from the streams, as well as taking basic water chemistry readings. We are now working on a report containing this year’s results and comparing our data with past years.

Working on this project helped us get a better grasp on the importance of the area’s watersheds and how our everyday actions affect them. This summer has also taught us a great deal about field work and what it’s like to be outside away from everyone for hours at a time. Along with learning about the different macroinvertebrates living in our streams, we also learned how to avoid poison ivy, heat stroke, bug bites and sprained ankles. Overall, we have had a pretty good summer and have had a lot of fun working out in the field and with each other. We are sure we will take what we have learned away with us this summer and apply some of these skills later in our educational and professional careers. We encourage others to get involved in a program like this.

- Hilary Becker, 2007 graduate from Southern Illinois University Carbondale
- Laura Pendleton, expected 2010 graduate from The College of William and Mary in Williamsburg, VA

Science Corner

This is the premier inclusion of the Science Corner section of our newsletter, and was added to give us the opportunity to answer questions that arise during our field work. If you are curious about something you find, or learn about something new and interesting yourself, please share with us!

Creature Feature: The American Dagger Moth Caterpillar

Students often ask what animals they might see in our National Parks, wondering if they will be eaten by a bear or anaconda that’s hiding just around the trail bend. Educators and rangers happily reassure them that they are safe from predation, and point out that poison ivy is probably the most offensive organism they might meet in the park. During the 4th Annual Harpers Ferry Institute, Becca learned that caterpillars, innocuous though they may seem, can also leave quite a lasting impression.

She encountered an American dagger moth caterpillar (show photo), Acronicta Americana. This caterpillar is about an inch long, covered in yellow hairs and with four longer black tufts. The guilty larva never made direct contact, but left behind a mess of hair after Matt kindly removed it from her clothes. The hairs caused a prickly sensation, and were merely annoying at first, but by the next morning itchy welts covered the area of skin where they had made contact. And what happens when curious scientists are surprised by something in nature? They investigate!

Identifying the caterpillar was not difficult, thanks to Google Image searches, but there were no formal reports to be found of adverse reactions to contact with the hairs. Rangers we talked with at Harpers Ferry had not been informed of any problematic encounters before this one, and no teachers in our group recognized the little fellow. If you do happen to meet an American dagger moth caterpillar, here is some general advice:

“The hairs of many (but not all) fuzzy caterpillars may be hollow and contain a poison that is injected into the skin when their sharp points penetrate. When the hairs, or the shed skins, of some of these caterpillars, accidentally brush against people, or when the insects are handled, people handling the insects often experience pain, and could develop a rash. The hairs can produce a reaction long after the death of the caterpillar, and in fact the dry hairs may be better able to penetrate the skin.”
Treatment for contact with urticating caterpillars:
- Apply adhesive tape lightly over area of stings and gently pull off to remove broken-off spines from the skin. Repeat several times using fresh pieces of tape.
- Wash with soap and water.
- Ice packs applied to the affected area may relieve pain and swelling.
- Topical steroids (hydrocortisone creams) may provide relief from itching and burning.
- Oral antihistamines may provide relief from symptoms.

(The Blue Ridge Poison Center)

Did You Know?

“Come To The Coast” - Meet BTW At The Beach!
BTW staff will attend the North American Association for Environmental Education’s (NAAEE) National Conference this fall and we would love to see you there! From November 13-17, partners in environmental education from around North America will meet in Virginia Beach, VA, to participate in field experiences, workshops, symposia and panels and truly invigorate themselves for a new year of EE. Included in the weekend presentations are keynote addresses from Chad Pregracke, founder of Living Lands & Waters, and Sylvia Earle, world famous oceanographer. BTW Program Manager Jeanne Troy and National Park Ranger Maggie Zadorozny will also join the ranks of presenters!

With the conference so close this year, here is your perfect opportunity to learn some fresh ideas and network with new EE professionals without excessive travel costs.
Saturday, November 17, is NAAEE Conference Teacher Day, with programs geared especially toward classroom teachers. A special K-12 teachers rate is offered on this day, with Saturday registration costing just $60 if you register by September 14. Scholarships are also available for full conference registration.
Visit www.naaee.org/conference for complete conference details and to register online.

“NAAEE is the professional association for environmental education. Since 1971, the Association has created opportunities for its members to improve their skills in creating and delivering programs and services that teach people how to think, not what to think.”

“No Child Left Inside”
This phrase is gaining momentum. You may have read it in Richard Louv’s “Last Child In The Woods: Saving Our Children From Nature-Deficit Disorder,” or remember it as the theme for the 2006 Maryland Association of Outdoor and Environmental Education (MAEOE) Conference. Many teachers are aware that funding and support for environmental education programs was significantly reduced with the enactment of the federal No Child Left Behind Act of 2002, which specifically emphasized the importance of math and reading. This legislation is up for renewal, and local and national environmental education organizations have partnered to support a new amendment to NCLB called No Child Left Inside! The Chesapeake Bay Foundation is supporting this bill, which will potentially provide increased funding and support for environmental education programs nationwide. Find out more at their website: http://www.cbf.org/site/PageServer?page=act_sub_actioncenter_federal_NCLB

To read this proposed bill in its entirety: