

STREAM LINES



THE NEWSLETTER OF THE
BRODHEAD WATERSHED ASSOCIATION

SPRING 2009

SAVE THE DATE:

APRIL 25 -
NATIVE PLANT
SALE

MAY 9 - INVASIVE
PLANT ID & RE-
MOVAL WORK-
DAY

MAY 24 -
RIVER RAMBLE

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WELCOME NEW BWA MEMBERS!

Bryan & Karen Dixon

Jeff & Susan Morris

Native Plant Sale

By: Judy Mehl

The Brodhead Watershed Association (BWA) native plant sale on April 25 will provide an expanded list of plants and larger quantities than last year. Some new plants will be available, as well as some of the old favorites. However, if members are looking for specific plants, plan on arriving at the opening time of 9 a.m. to ensure your purchase. Special this year will be a small quantity of Rain Garden Starter Kits. (See sidebar page 2)

The sale will again offer an array of plants hardy in this area. It will include dozens of shade and sun perennials including ferns, grasses and an assortment of shrubs. All plants are native to Pennsylvania (most to Monroe County) and are provided to



Blue Bells are one of the native plants for sale April 25

the customer with growth and habitat information to aid their transition into the garden. Prices range from \$2.00 to about \$10.00 for the perennials and about \$10.00 to \$20.00 for the trees and shrubs.

No pre-ordering is required. Gardeners and homeowners can come and learn about a variety of native plants and buy what is suitable for their landscaping environment.

There will be native plants available for a variety of habitats in the Poconos. For a list of the plants we've ordered for the sale, visit our website and click on the announcement link.

The sale will be held in conjunction with the Monroe County Conservation District's (MCCD) tree seedling sale from 9 a.m. to 1 p.m. on Saturday, April 25, in Bartonsville.

DIRECTIONS: From Stroudsburg (or Exit 302B from I-80) go N. on Rt. 611 to the traffic light after the truck stop in Bartonsville, and turn left onto Rimrock Dr. Follow Rimrock Dr. for 0.4 mile, bear right onto N. Easton-Belmont Pike, go 0.2 mile, then bear right onto Running Valley Road. MCCD is 0.7 mile on left.

\$116,000 Growing Greener Grant for Paradise Watershed

By: Deb Brady

The PA DEP has awarded the Brodhead Watershed Association a grant of over \$116,000 to design the repair of a 1000 ft. stretch of the Paradise Creek stream bank near Red Rock Road in Paradise Township. Sanofi Pasteur has contributed \$15,600 toward the project, and Paradise Township will contribute another \$5,000.

The Paradise Creek at Red Rock Road just off Rt. 191 has been devastated by repeated flooding events in

past years, causing massive stream bank erosion and threatening the integrity of the township road, a state bridge, and several private properties. The sediment washed downstream may also be increasing nutrient loading, threatening water quality and aquatic habitat.

The grant will fund the environmental studies and engineering necessary to design the restoration of the stream bank using natural stream design methods. The Brodhead Watershed Asso-

ciation is partnering with Borton-Lawson Engineering and Skelly-Loy on this project which will be completed in two years.

This is the third Growing Greener grant awarded to BWA for work in the Paradise watershed. The first project developed a Management Plan for the Paradise watershed; subsequent projects are implementing actions recommended by the Plan.

BWA Selected as a Recipient of the 2009 Coldwater Heritage Partnership Grant

Rain Garden Starter Kits

Ten rain garden starter kits highlight this year's native plant sale. Along with instructions on how you can build a small rain garden in a sunny location, each kit offers one each *Cornus sericea* (Red-osier dogwood) and *Viburnum dentatum* (Southern arrow wood) plus three each of *Lobelia siphilitica* (Great blue lobelia), *Lobelia cardinalis* (Cardinal flower) and *Rudbeckia fulgida* (Orange cone-flower).

Rain gardens are low-lying landscaped areas planted with native wildflowers and shrubs to soak up rainwater runoff from the roof of a house or roads and driveways. Sending run-off to a rain garden allows water to soak into the ground rather than running off to a storm drain or roadside. They help protect against flooding while providing a beautiful landscape and a valuable habitat for birds, butterflies and beneficial insects.

The starter kits package price will be discounted from the total of individual prices, to be determined once BWA receives available plant sizes and prices from the nurseries.

By: Rob Sedwin

ESU Professor, Dr. Shixiong Hu and Masters Candidate Scott Collenburg to look at stream temperature in Paradise watershed.

The Brodhead Watershed Association (BWA) has been selected as a recipient of a Coldwater Heritage Partnership 2009 Grant Award. The BWA along with 6 other similar organizations in the state will receive a portion of a \$35,000 grant award to be used by local organizations to protect and conserve Pennsylvania's coldwater stream habitats. The BWA will draw on the grant to investigate the stream temperature changes, determine causes, and develop a management plan for the Paradise Creek and its tributaries.

The Coldwater Heritage Partnership is a cooperative initiative between Pennsylvania Trout Unlimited, the Pennsylvania Department of Conservation and Natural Resources, the Pennsylvania Fish and Boat Commission, and the Foundation for Penn-

sylvania Watersheds.

Don Baylor, President of the Brodhead Watershed Association states "The BWA is excited and honored to receive this award which will enable us to continue our work monitoring the health of our local Streams and Waterways."

As part of the Brodhead Watershed, the Paradise Creek has historically provided high quality water, forested headwaters, and low temperatures which present ideal habitats for cold-water fish. However, in recent years, some stream sections in the watershed have shown signs of higher water temperatures caused by natural and human-induced actions. This endangers the habitat of cold water fish. To understand the impact of natural and human events and the impact on fluctuations of stream temperature, the BWA and the Monroe County Conservation District are collaborating with the Geography and Biology departments in East Stroudsburg University to investigate the spatial and



Scott putting a temperature logger in a stream

temporal patterns, and changes in stream water temperature in Paradise Creek watershed.

HOBO Pro Temperature Data Loggers will be installed to monitor stream temperature, and GIS technology will be used to analyze land use changes that might impact stream water temperature. The data that is gathered will be used to prioritize future stream restoration projects, such as planting of forested buffers. A comprehensive cold water management plan will also be developed, which will be combined with the current watershed management plan to protect the Paradise Watershed.

Cherry Valley Ramble

By: Anne Fetherman

The River Ramble is an annual event hosted by the Brodhead Watershed Association in cooperation with other groups and individuals who are dedicated to the protection and preservation of the Brodhead and Cherry Creek watersheds. The Ramble provides an opportunity for families to observe some successes and challenges in this effort.

The 2009 Ramble will be held on Sunday, May 24, 2009 from 1pm to 4:30pm. This year's event is, as it was last year, a joint project of BWA and Friends of Cherry Valley and is called the Cherry Valley Ramble. Four ramble stops will demonstrate

some of the special characteristics of Cherry Valley that won it designation as a National Wildlife Refuge in December 2008. Participants will park by each tract and walk in a few hundred yards where they will meet with naturalists who will share information about the significance of the property. This year's sites include the Walker Tract, Pocono Wildlife Rehabilitation Center, Blakeslee Farm, and Tott's Gap entrance to the Appalachian Trail. The entire driving length of the Ramble is less than 15 miles.

Participants must pre-register by calling Anne Fetherman at 570-424-8121 by May 20. Space is limited and on a first-come, first-serve basis. Sign-in will take place from noon until 1pm at the Fetherman home,

1343A Cherry Valley Road, which is .7 miles east of Rt 191. Participants will be asked for a donation (\$10 individual, \$15 family). Name tags and directions with maps and site sequences will be provided.

After the Ramble, all participants are invited to the Fethermans' where refreshments will be served. Before and after the Ramble, BWA will sell native plants in the Fetherman driveway.



Sanofi Pasteur Completes On-Site Treated Water Expansion Project

By: Mark Nemitz, sanofi pasteur

During 2008, sanofi pasteur completed the construction, commissioning, and startup of expanded wastewater treatment and irrigation systems at its facility in Swiftwater, PA. The project cost the company a total of \$42.1 million, with \$14.4 million dedicated to the irrigation system -- the largest to date in Northeast Pennsylvania. It was initiated in August 2005 with feasibility studies that evaluated treatment technologies and options for wastewater reduction, minimization, and reuse.

Environmentally focused project objectives that were successfully met included:

- Reusing at least 50,000 gpd of treated wastewater at the on-site Central Utilities Plant
- Utilizing seasonal land application methods as a non-surface water discharge alternative for up to 315,000 gpd of treated wastewater disposal during the months April through October

The wastewater treatment and irrigation system expansion project demonstrates sanofi pasteur's commitment to responsible environmental stewardship and responsible economic development. By providing vital infrastructure to the Swiftwater facility using state-of-the-art and state-of-the-industry technolo-

gies, and land preservation and conservation activities, the project enables the company to continue and expand its mission as the nation's premier researcher, developer, manufacturer, and supplier of vaccines for the protection of human health in the United States and the world.

The upgraded, expanded wastewater treatment plant includes an extensive high-quality process that effectively removes physical, chemical, and biological contaminants from the water before it is discharged. The spray irrigation site is an authentic reflection of the Pocono Mountains' natural surroundings, boasting extensive native vegetation and wildlife.



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Spray irrigation activity at the sanofi pasteur Swiftwater campus. More than 233 acres of land were purchased for the spray irrigation system expansion.

Spring is about to 'Spring'

By: Jeri Jewett-Smith, Environmental Studies Program, ESU

Most of us are looking forward to spring, longer days, warmer temperatures and a change in the vegetation from brown to green. Soon, along the shores of our streams the stream edge plants, called riparian vegetation, will start to grow again, add leaves and eventually produce shade. During the time between snow melt and shady canopies you can see the native spring ephemerals in forests along our streams like yellow trout-lily, trilliums, false hellebore, pink and yellow lady's slipper orchids, various violets, squirrel-corn and Dutchman's-breeches. These great common names were pinned upon some pretty and showy small plants, with unique colors and flower forms. Unfortunately the actions of development, flooding and invasive exotic plants have reduced the biodiversity of the forest floor in spring. When we lose the

plants we also lose the insects that feed and pollinate them, the small animals that eat the insects, with the beauty of the spring-time forest floor.

What can you do to help protect the springtime flower show? Each of you have the chance to participate in several activities this spring that the BWA is sponsoring: the native plant sale, invasive riparian plant training and invasive riparian plant removal projects in local stream-edge parks. Putting in a rain barrel to catch part of storm water runoff can reduce flooding and give you some free water for your garden. Learn about the invasive plants on the BWA webpage and see if your property harbors any invasive, exotic plants. Work in your township to adopt riparian buffer ordinances that protect the zone where these plants grow. That way we can help make sure that grandchildren and great-grandchildren can see the springing of the forest floor.

Encourage a Friend to Join Today!!!

Name: _____

Street: _____

City: _____ Zip: _____

Phone: _____

E-mail: _____

Preferred method of receiving BWA news & info:

Regular Mail Email Both

Circle One:

Family \$30 Individual \$15 Senior \$10

Student \$5 Contributor \$100

Adopt-A-Stream Site \$250

Return, with your check to:

Brodhead Watershed Association
Box 339, Henryville, PA 18332

The official registration and financial information of Brodhead Watershed Association may be obtained from the Pennsylvania Department of State by calling toll-free, within Pennsylvania

Spring Watershed Events

More information inside....

BWA's Annual Native Plant Sale

Saturday, April 25th - Go Native!

See Page 1

Living Deliberately: Thinking Like Thoreau Today

Monday, May 4—Monroe Co. Conservation District's Conservation Through Education. More information at: www.mcconservation.org

Attack on Invasives Workshop

Saturday, May 9 - See right

Annual River Ramble

Sunday, May 24 - See Page 2



Attack on Invasives Workshop

Want to learn more about managing invasive plants on your property? A workshop on invasive plant identification and removal/control techniques will be held on May 9, 9:30 AM, at the Brodhead Forest and Stream Association.

After a short orientation session, participants will go out along the stream to locate problem "hotspots" and go to work on some simple removal tasks. The focus of the work will be on Japanese Knotweed control, and how best to manage infestations along stream banks.

Because space is limited, we request you pre-register. Call BWA at 839-1120 to sign-up and get directions.



Want to contact us? Phone: 570-839-1120 • Email: brodheadwatershed@verizon.net • Web: www.brodheadwatershed.org



Brodhead Watershed Association

Box 339

Henryville, PA 18332

The Brodhead Watershed Association is a non-profit organization formed in 1989 to promote and preserve the environment of the Brodhead watershed and the water quality of the Brodhead, Cherry, Marshalls, McMichael, Paradise, and Pocono creeks and their tributaries.