



CLEARWATER *conservancy*

CLEARWATER NEWS FALL 2006

Campaign for Conservation Local Couple Leads the Way

Gert and Jean Aron have been longtime members and supporters of ClearWater Conservancy. Gert, who is a Professor Emeritus at Penn State University in Civil Engineering and Urban Hydrology, served on the ClearWater Board of Directors in the 1980s and continues his volunteer commitment most notably through ClearWater's annual Watershed Cleanup Day. His wife Jean, an amateur naturalist and famed local author of "The Short Hiker", was also elected to the ClearWater Board of Directors in 2005 and helps with Spring Creek Day and Adventures in Conservation programs.

Over the years their friendship, advice, and support have been important to ClearWater's success and growth. That is why we are so thrilled to announce the Arons' Leadership Gift to ClearWater Conservancy's Campaign for Conservation. Their \$15,000 donation is the perfect kick off to this important fundraising initiative to raise \$250,000 for projects in ClearWater's Land Conservation Program.

Learn more about the Campaign for Conservation on page 4!



Jean and Gert Aron, hiking on the trail, circa 1984.

*We played in the Water;
we played in the Wood.
We loved every moment,
as much as we could.*

*Remember the moments.
Our lives have been good.
Give forward the Water;
give forward the Wood.*

~ Jean Aron, 2006

WHY SUPPORT LAND PRESERVATION: The Three "W"s

by Jean and Gert Aron

Water, Woods, and Wildlife have been the focus of our lives since we moved here in 1969. Central Pennsylvania has an abundance of pleasing natural features. The benefits of a clean environment, clean water, clean air, and green spaces are the keys to a quality of life we all enjoy. But we should never take it all for granted.

We are fortunate to live in such a beautiful part of the world, and lucky indeed to be able to give something back to an area which we have loved for so long. Perhaps "giving it forward" would be a more appropriate term, since the purpose of Land Conservation is for future generations to enjoy.

Mark Your Calendar!

Monthly Meetings

ClearWater Board of Directors
2nd Thursday, 7:30 – 9 am

Spring Creek Watershed Community
Coordinating Committee
3rd Tuesday, 7:30 – 9 am, Patton Twp

Spring Creek Watershed Commission
2nd Tuesday, 7:30 pm

ClearWater Land Conservation &
Stewardship Committee
4th Wednesday, 7:30 – 9 am

Special Opportunities

**November 7, 5:30 pm social hour,
6:30 pm dinner, State College Elks
Country Club**

ClearWater Conservancy Annual
Banquet. We are excited to present
Dr. Gary Alt and his "Natural History of
the Black Bear" show as this year's
keynote speaker. Also featured will be
the presentation of the Don Hamer
Leadership Award and the Barbara
Fisher Volunteer of the Year Award.

Tickets are available for \$25. RSVP to
lindsay@clearwaterconservancy.org or
237-0400 by **October 30!**

**December 3, 11 am – 2 pm, Univer-
sity Baptist & Bretheren Church, 411
S. Burrowes St., State College**
ClearWater Conservancy will partici-
pate this year in UBBC's Alternative
Christmas/Holiday Fair.

**December 31, 2006 – January 1,
2007, Downtown State College**
Watch the windows on Allen Street for
beautiful displays of art donated by
local artists to benefit ClearWater
Conservancy. Pieces will be auctioned
at For the Love of Art & Chocolate on
January 27.

**January 27, 7 – 10 pm, Ramada Inn
& Conference Center**

ClearWater's fabulous annual For the
Love of Art & Chocolate celebration.
Featuring music by Jazza-Ma-Phone,
sumptuous chocolate delicacies,
beautiful nature-inspired art by talented
local artists, and fun door prizes. All
money raised through ticket sales and
the silent art auction benefit
ClearWater's conservation mission.

**January 27, 9 pm, Ramada Inn &
Conference Center**

Drawing for your choice of two 10' x 13'
handmade Persian rugs from Desert
Rug Company. Raffle tickets are
available for \$10 each by calling 237-
0400.

Please visit our website at www.clearwaterconservancy.org for more!



Save Money... Save Time...
Save Energy...
Help Save Our Environment

Learn more at
www.laundryplus.com/mtp
pass code **guest**

Or call Melvin Peck of Pure
Living Systems at 866-894-6387

Volunteer Needs

Growing Native Program coordinator

For the Love of Art & Chocolate planning:
chocolate recruiting, publicity, ticket
sales, First Night displays, etc.

Wish List

Postage stamps
Tent canopies for outdoor events
Empty toner cartridges to recycle
Insect field guides
Large cooler for events
Donations of items appropriate for
silent auctions

WELCOME TO OUR NEW MEMBERS!

July 1 - October 17, 2006

Frank & Robin Dunlap
Michael & Jeanne McKinney
Jaimie & Andy Frey
Donalee & Jeffrey McElrath
Chris Lee
Scott Bartoo
Djelal Jtwros
Susan Ashley
Charles & Abby Curtis
C&D Brewing,
Otto's Pub & Brewery

THANK YOU

United Way Day of Caring volunteers:
**Don Watson, Bryce Boyer, Penn
Installations - Bob Baker, Alan
Schaffranek, Shane Park, Regan Haupt,
Debbie McBride, Morgan Academic
Support Center for Student Athletes -
Mark Hinish, Delores Brobeck, Tammy
Leathers, Shawna Bowfer, Pam Murray,
Wally Richardson, Russell Mushinsky,
Adam Stover, Jim Weaver, Penoco - Steve
Rohrbach, and Tim Sommers.** Our office
volunteers: **Art & Eleanor Tyson, Bryce
Boyer, and Don Watson.**

Jim DeTuerk for our fish tank stand and

THANK YOU

a laser pointer; **Denee Judy** for more laser
pointers; **Elton Tait** for a thistle bird
feeder.

Pat Morse and **Diane Kerly** for Lindsay's
financial training.

**Jim & Jess Savage, Kait Williams, Elliot
Slack, and 27 PSU Fresh Start volun-
teers** for planting trees along Roaring
Run at the Hess Farm.

Jessica Peterson-Smith for helping to
locate stands of purple loosestrife along
upper Spring Creek for removal.

A Note from your President

Just as our last newsletter went to press, ClearWater concluded the acquisition of Musser Gap. This very important property will ultimately be conveyed to the Bureau of Forestry and incorporated into Rothrock State Forest. In addition to providing recreational access to the state forest lands, it will ensure significant protection to the State College Water Authority's well fields, protect Important Bird Areas and other wildlife habitat, and preserve the scenic view of Tussey Mountain.

We hope to build on the success of this project, and to that end we are launching our \$250,000 Campaign for Conservation. The goal is to have the funds available for subsequent projects, so that we can cover the costs and do the work necessary to develop and conclude major acquisitions and other land protection efforts. I hope you will join us in building this fund.

Lastly, please indulge me in a personal note. I cannot let my last column pass without thanking the ClearWater Board, our tremendous staff, and our membership for giving me this trust for the last two years. The board is very strong and focused on our mission, the staff does work that is unbelievable in both quantity and quality, and the volunteers who support our efforts continue to impress. The strength of any organization is in its people, and as I have gotten to know the people of ClearWater better over my tenure, I am very confident that bigger and better things are ahead. Thank you all!



THANK YOU

Larry Kuhns, Professor of Ornamental Horticulture at Penn State, for invasive plant removal along upper Spring Creek and Roaring Run and for donating several extra large trees for our riparian planting at the Elks Club.

Dave Zeigler at **Black Hawk Homestead Nursery** for donating silky dogwoods used in streambank restoration plantings at the Elks Club and Hess Farm.

Omega Bank and **Ron Popovic** for providing the bridge loan for the purchase of Musser Gap.

Bob Moul (www.PBase.com/rcm1840) for use of his native wildlife photographs in our Riparian Conservation Program brochure and **Joanne Kamo** for use of her golden-winged warbler photo.

Carolyn & Elwood Hatley, Graphics & Design, Mark Morath/Hilton Garden

THANK YOU

Inn, Tracey Dooms, Mary Walsh, and Tim O'Connell for developing the ClearWater/Millbrook Marsh educational display that will be permanently installed in the Hilton Garden Inn lobby.

DCNR and **Jim Savage** for donating 1,800 red and white oak seedlings to our Growing Native Program; **Don Watson, Bob Eberhart, and Jeremy Harper** for transporting the seedlings to the **State College High School Ag Science Program** /**Paul Heasley** who will grow them for us.

25 PSU volunteers from the 2006 Homecoming Day of Service who organized greenhouse space and transplanted nearly 550 red oak, white oak and white pine seedlings for our Growing Native Program.

Intern **Kait Williams** for her work on our Riparian Conservation Program.

THANK YOU

Dominion Educational Partnership for \$2,000 student environmental education at Millbrook Marsh Nature Center through ClearWater's Connections program.

Western Pennsylvania Watershed Program for granting \$8,089 towards our Scotia Barrens Conservation Project's outreach efforts.

Dansko for donating \$5,000 towards Watershed Cleanup Day 2007.

Steve Miller for donating three books: *Pesticide Index, How to Identify Grasses and Grasslike Plants, and Field Guide to the Grasses, Sedges, and Rushes of the US.*

Norcross Wildlife Foundation for a \$3,400 technology grant.

Fred & Joan Thompson for granting \$1,000 through their Centre County Community Foundation donor advised fund.



Conservation Biologist, Katie Ombalski led ClearWater's successful acquisition of Musser Gap.



WE DID IT...

Musser Gap Conserved!

On August 8, ClearWater Conservancy purchased Musser Gap from local businessman and developer, Chris Kopac. Over three years of intense planning, discussions, and negotiation made this acquisition possible. In early 2007, the land will become a permanent addition to Rothrock State Forest.

By protecting Musser Gap from development, ClearWater is safeguarding the Centre Region's largest source of drinking water, maintaining important wildlife habitat, and developing a much needed alternative recreational gateway to Rothrock. Although the property is open to the public, access is currently very limited. ClearWater staff is working with DCNR Bureau of Forestry and PennDOT to design a safe entry from Route 45 and public access area for the gateway.

Our grateful thanks go out to our project partners and funders who helped to make the Musser Gap Forest Gateway possible: PA Department of Conservation & Natural Resources' Community Conservation Partnership Program and Bureau of Forestry; State College Borough Water Authority; Colledge, Ferguson, Halfmoon, Harris, and Patton Townships; State College Borough; Huplits Foundation; and Altrusa International of Centre County. A special thanks to Omega Bank for the bridge funding to complete the project.

Campaign for Conservation

...YOU CAN DO IT, TOO!

What is your vision for your community? Yes, you... close your eyes for a moment and dream. What kind of future do you choose for your children?... Your children's children?

Think back to your fondest memories. Visualize your natural surroundings. Do you dream of a rippling stream and your first cast? Hiking the trail and coming upon a beautiful vista of fields and forests? Camping with your buddies under the dome of a star-filled sky?

There are so many reasons we love nature, on so many levels. Our

connections with nature are powerful in our lives, and our responsibility for taking care of our natural resources is great.

As an organization dedicated to conservation, ClearWater Conservancy takes this responsibility seriously. To do what it takes, we have launched a \$250,000 Campaign for Conservation. This money will be dedicated solely to our Land Conservation Program, which purchases or places conservation easements on properties with important natural resource value, properties at risk of being lost forever.

As the communities of central Pennsylvania grow, so do the opportunities for action. As we pick up the pace of conservation, your contribution will allow us to seize the moment and protect the lands that matter most.

The challenge is great, but so are you. Please fill out the inserted Campaign for Conservation envelope and send in your generous pledge for land and water conservation.

With your involvement and financial commitment, we can change the world.... together, one special place at a time.

LIP Grant Approved for ClearWater Conservancy

by Bill Hilshey, Conservation Easement Manager

ClearWater Conservancy is moving forward with a conservation easement for Eagle Field, a 240-acre property on Bald Eagle Mountain in Centre County. At their quarterly meeting on October 3, the Pennsylvania Game Commissioners approved a Landowner Incentive Program (LIP) grant to help purchase this conservation easement. Through LIP grants, the Pennsylvania Game Commission and the Pennsylvania Fish and Boat Commission distribute funds provided by the U.S. Fish and Wildlife Service to assist land trusts to purchase conservation easements. The grants are competitive and only projects of high quality are funded. LIP grants are ranked on the presence of priority species of concern, potential threats to habitat, importance of habitat functions, connectivity to adjacent protected habitat, project readiness, availability of matching funds, and landowner commitment.



Scarlet Tanager

Eagle Field contains a large intact forested area important for avian species of special concern as designated by Pennsylvania's *Comprehensive Wildlife Conservation Strategy*. Examples of these species include Wood Thrush, Scarlet Tanager, and Worm-eating Warbler. The property lies within Important Bird Area (IBA) #32 (a major route for migrating raptors along Bald Eagle Mountain) and is a little more than a mile from IBA #34 which encompasses State Game Lands 176. A pond, a wetland area, and springs, forming the headwaters of Buffalo Run and Halfmoon Creek, can be found on the property.



Eagle Field will be protected by ClearWater Conservancy with the help of a Landowner Incentive Program grant from the Pennsylvania Game Commission.

The owner of Eagle Field, an excellent steward of his property, has graciously donated one half of the value of the conservation easement, thereby providing the matching funds required by the grant. We at ClearWater Conservancy look forward to continuing our work with the landowner as we approach completion of this vital project.

New Conservation Easement Signs

ClearWater Conservancy holds seven conservation easements protecting more than 600 acres. With landowner permission, we hope to erect signs at each protected property. We anticipate that 20 signs will cover the present properties, as well as the conservation easements that we anticipate holding in the not too distant future. To accomplish our goal of erecting these signs, we need materials and funds. The production of 20 signs will cost \$360 (\$18/sign); 20 pressure-treated 6 or 8-ft. 4x4's will cost \$180 (\$9/post); and 30 bags of Sakrete will cost \$111 (\$3.70/bag or 1.5 bags/post). If you would like to help us tell the public about the important work that ClearWater Conservancy does, consider contributing posts or bags of Sakrete. Alternatively, please consider donating funds to purchase the materials.



Conservation Action Planning in Central Pennsylvania

by **Katie Ombalski**, Conservation Biologist

Western Pennsylvania Conservancy (WPC) created a “Conservation Blueprint for Pennsylvania” in 2006 to help WPC and its partners prioritize future conservation initiatives.

Using 25 years of data compiled by the Pennsylvania Natural Heritage Program and other scientific institutions, this Blueprint identifies the most important areas in Pennsylvania and the adjacent region for protection, conservation, and restoration of land and water that supports native plants, animals, and important habitats.

These areas, called Priority Conservation Landscapes, include the Upper

Ohio River Basin, Middle Allegheny Forests, North Central & West Branch Susquehanna Basin, Juniata River Basin, Potomac Tributaries, Laurel Highlands, Great Lakes – Lake Erie, and the Nittany Valley.

Now that the Priority Conservation Landscapes are known, WPC is reaching out to other conservation partners to protect the biodiversity of these important areas.

ClearWater Conservancy and WPC have joined forces this fall to prioritize conservation initiatives for the Nittany Valley using a conservation tool developed by The Nature Conser-



Spotted Salamander (Ambystoma maculatum)

vancy called Conservation Action Planning, or CAP.

With the assistance of our volunteer Core Project Team, we will identify: 1) **ecological systems** that are critical to the conservation of biodiversity in the Nittany Valley (i.e., conservation targets), 2) **stresses** on these targets and their **sources**, 3) **strategies** for conserving these targets, and 4) measures of conservation **successes**. CAP results will drive the conservation actions of ClearWater Conservancy and WPC for years to come.

The Core Project Team had their first two meetings on September 19 and October 11. Outcomes of the meetings included the identification of 8 conservation targets:

- 1) Limestone springs, streams, wetlands, and floodplains
- 2) Vernal pools
- 3) Mountain saddles, water gaps, and freestone streams
- 4) Barrens plant communities
- 5) Valley bottom mesic forests
- 6) Subterranean ecosystems
- 7) Limestone cliffs and glades
- 8) Ridge tops and slopes

Core Project Team

Joe Bishop, *Geospatial Operations Coordinator, Penn State Cooperative Wetlands Center*

Dr. Rob Brooks, *Professor of Geography and Ecology, Penn State Cooperative Wetlands Center*

Dr. Bob Carlone, *Adjunct Professor of Fisheries, PA Cooperative Fish & Wildlife Research Unit*

Rob Cooper, *Director of Energy and Engineering, Penn State University Office of Physical Plant*

Dr. Duane Diefenbach, *Adjunct Assistant Professor of Wildlife Ecology, PA Cooperative Fish & Wildlife Research Unit*

Dr. Jim Finley, *Professor, Penn State University School of Forest Resources*

Jay Lynch, *Hydrogeologist, Meiser & Earl Hydrogeologists*

Dr. Carolyn Mahan, *Associate Professor of Biology and Environmental Studies, Penn State University*

Sarah Miller, *Senior Research Assistant, Penn State Cooperative Wetlands Center*

Brad Ross, *Biological Consultant*

Tony Ross, *Regional Wildlife Biologist, Pennsylvania Game Commission*

Katie Ombalski, *Conservation Biologist, ClearWater Conservancy*

Becky Dunlap, *Aquatic Biologist, ClearWater Conservancy*

Charles Bier, *Senior Director of Conservation Science, Western Pennsylvania Conservancy*

Erika Hollis, *Watershed Manager, Western Pennsylvania Conservancy*

Mark Killar, *Watershed Manager, Western Pennsylvania Conservancy*

After identifying the targets, the Team determined which “key ecological attributes” should be used to assess the health of each target. This information is the basis for the rest of the planning process.

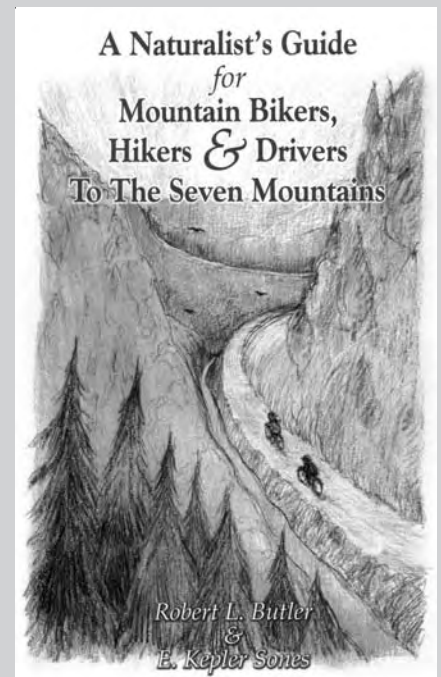
The Team also discussed renaming “The Nittany Valley” to better reflect the geographic location of this Priority Conservation Landscape, suggesting that the name should include the geology that the unique flora and fauna depend on.

ClearWater is able to participate in this planning initiative thanks to the generous financial support of Sheri and Dayton Coles and their commitment to increasing ClearWater’s capacity for completing on-the-ground conservation projects in central Pennsylvania.

Now available through ClearWater Conservancy...

A Naturalist’s Guide for Mountain Bikers, Hikers, and Drivers To The Seven Mountains by Robert L. Butler and E. Kepler Sones.

Two boxes of these books were donated to ClearWater Conservancy by Bob Butler’s wife Faye. For a suggested donation of \$15, you can discover the natural and scenic splendor of the Seven Mountains area through the eyes of the authors. All proceeds benefit ClearWater’s Campaign for Conservation.



The Nittany Valley – A Priority Conservation Landscape

excerpted from Western Pennsylvania Conservancy’s newsletter, *Conserve* (Spring 2006)

The landscape referred to as Nittany Valley lies precisely at the geographic center of Pennsylvania in Centre and Huntingdon counties between two long mountain ridges: Bald Eagle Mountain and Tussey Mountain. Although the place name is derived from a spur-ridge offshoot of Tussey known as Nittany Mountain, the biodiversity significance is not so much on these mountains, but within the intermountain lowlands. Here the bedrock geology is composed of multiple limestones and the rare gravelly Gatesburg Formation, resulting in distinctive topography, soils and habitat types.

This is one of the most unique landscapes in the state and includes a mixture of: pitch pine-scrub oak sand barrens habitat, dotted with vernal pools; the Spring Creek valley with its alkaline soils, limestone cliffs and rich vegetation; karst valleys underlain with limestone aquifers, sinkholes and solutional caves. The outflows from groundwater reserves form some of the largest natural springs in the region and are the source for high quality streams such as the cold Spruce Creek. These unusual ecosystems harbor rare species, such as Stellmack’s cave amphipod and Franz’s cave isopod, crustaceans known from few other places on earth.

Large intact forests exist on the adjacent mountains, but lower limestone soil-based forest types are now limited due to a high degree of fragmentation related to agriculture, highways and expanding development. The conservation of biodiversity in Nittany Valley brings its own set of particular challenges to protecting and restoring its signature life forms and ecosystems. One challenge will be to assure viability by restoring lowland forests in certain areas to larger sized patches and to create corridors for wildlife. Protecting groundwater quality and quantity, and reducing fragmentation are among the other conservation goals.



Stellmack’s Cave Amphipod (Stygobromus stellmacki) is facing an extremely high risk of extinction in the wild due to a population size estimated to number fewer than 1000 mature individuals.

ClearWater Newsbriefs...



Gary Alt, shown above in a den with a mother bear and two cubs, will talk about the natural history of black bears at ClearWater's Annual Banquet on November 7.

ANNUAL BANQUET FEATURES

GARY ALT

Reserve your seats now for ClearWater's 2006 Annual Banquet on Tuesday, November 7 at the State College Elks Club. The social hour begins at 5:30 pm, with dinner at 6:30. The menu includes your choice of Champagne Chicken or Stuffed Flounder along with a fruit cup, Caesar's salad, and Boston cream pie.

The meal costs \$25 and may be purchased by calling the ClearWater office at 237-0400 or emailing lindsay@clearwaterconservancy.org.

ClearWater is pleased to present Dr. Gary Alt as this year's keynote speaker. Dr. Alt will beautifully illustrate the natural history, general ecology, and behavior of American black bears in an educational and entertaining presentation. Dr. Alt shares many of his personal experiences and encounters with over 3,000 bears which he has captured and followed in the past three decades.

You will see rare photographs of cubs on their first day of life and learn the answers to many commonly asked questions, like: How dangerous are bears? How long do they live? Where do they den? What do they eat? Do bears really hibernate?

What should I do if I encounter a bear in the wild?

Bears are the largest land carnivores in the world and the subject of many myths. They are among the most misrepresented and misunderstood mammals yet among the most widely beloved.

"A Natural History of Black Bears" will engage and entertain anyone who has ever wondered about the lives of these fascinating creatures or anyone with a love of the natural world.

The evening will be rounded out with a silent auction to benefit the Conservancy's work in 2007 and the presentations of the Barbara Fisher Volunteer of the Year Award and the Don Hamer Leadership Award.

CANDIDATES' NIGHT DRAWS CROWD

The Spring Creek Watershed Community, in conjunction with the Foxdale Village Residents Association, hosted an informative candidates' night on October 24.

Be sure to vote for the candidates of your choice on November 7, before joining us at ClearWater's Annual Banquet!

NEW COMMITTEE CHAIR NAMED

In September, Carolyn Mahan passed the leadership of ClearWater's Land Conservation and Stewardship Committee to Kathy Gipe.

Kathy has been a member of the Committee since 2002. Her professional work is also closely tied to land conservation; she is an inventory zoologist for the Pennsylvania Natural Heritage Program with the Western Pennsylvania Conservancy. Kathy and her family are avid recreationalists in Centre County and highly value the natural features of the area.

We warmly welcome Kathy to this new challenge and thank Carolyn for her years of highly productive leadership of this important volunteer committee.

BOARD CANDIDATES BRING VISION AND COMMITMENT

Incoming and outgoing Board Presidents, Jeff Sturniolo and Dan Crust, interviewed three talented and passionate new Board candidates, who will join the Board upon their election at the November 7 Annual Banquet.

Chris Magent is the Director of Business Development at Alexander Building Construction, LLC and holds a PhD in Architectural Engineering.

Chris serves on the US Green Building Council and CBICC's Heritage One and Government Affairs Committees. Chris' vision is for growth balanced with conservation of undeveloped lands.

Melinda Turner holds a Master's degree in Wildlife and Fisheries Science and works as a Fish and Wildlife Biologist in the area of Natural Resources Damage Assessment and Restoration with the U.S. Fish and Wildlife Service. With her strong conservation ethic, Melinda is looking to take a more proactive role in our community's conservation.

Steve Miller has been a resident of central Pennsylvania for 30 years and has a key interest in preserving the environmental features that played a large part in his decision to remain in the area for so long. Steve is an elected supervisor for Ferguson Township, sits on the COG Public Services Committee, and is a member of the Spring Creek Watershed Commission. He got his start in public service through the Ferguson Township Planning Commission. Steve also worked as an analytical chemist for more than 20 years and is currently a science writer.

DESERT RUG RAFFLE

Have you dreamed of owning a handmade Persian Rug from the Desert Rug Company? Now is your chance!

Purchase a raffle ticket for \$10 to enter ClearWater's drawing for your choice of two 10' x 13' handmade Persian rugs. One is a "city" rug and the other is a "tribal-

style" rug; both are beautiful and valued at \$5,000 each.

Tickets are available now from Board members, at the Annual Banquet, or by contacting the ClearWater office at 237-0400. The drawing will be held at 9 pm on January 26, 2007 at ClearWater's For the Love of Art & Chocolate benefit event.

Sincere thanks to Desert Rug Company and the Arjmand family for their generous contribution to support natural resource conservation in the heart of Pennsylvania.

SLAB CABIN RUN STORMWATER BIORETENTION PROJECT CONSTRUCTION BEGINS

The Penn State Office of Physical Plant is improving stream banks near Millbrook Marsh Nature Center. The project involves the construction of rock and log structures in the stream to reattach the stream channel to its historical floodplain in the Millbrook Marsh.

The project is a Pennsylvania Department of Environmental Protection,

Growing Greener initiative designed to reduce stream erosion and water pollution in Slab Cabin Run and Spring Creek caused by increased stormwater runoff from upstream urbanization.



Becky's Bug Station is a popular attraction at the 2006 Spring Creek Day Family Festival at Millbrook Marsh Nature Center. The lower level of the barn, seen in the background, is the future site of the Nature Center's Wetland Laboratory.

The project has been carefully planned recognizing the environmental sensitivity of the area and is being constructed by a specialized stream restoration company—Wallace & Pancher Inc.—to insure that these impacts and disruptions are minimized to the greatest extent possible. Slab Cabin Run is a vital component of the Millbrook Marsh ecosystem, and this project represents a substantial effort to protect this resource from further degradation as the watershed continues to urbanize.

UNITED WAY DAY OF CARING

Next time you stop by the ClearWater office, be sure to check out the new carpet and freshly painted walls between the front offices and the conference room. A total of 18 volunteers from ClearWater, Penn Installations, Penoco, and the Morgan Academic Support Center for Student Athletes cleaned, organized, painted, moved furniture, pulled weeds, removed old carpet, and installed new carpet to spruce up our work environment. Thank you all!

The Scotia Barrens

Conservation Project

by **Katie Ombalski**, Conservation Biologist

State Game Lands 176 (SGL 176), located in Halfmoon, Ferguson, and Patton Townships, is commonly referred to as “the Scotia Barrens”.

Historically the Scotia Barrens encompassed a much larger geographic area following the geology of the Gatesburg Formation that stretches north of State College through the Nittany Valley and southwest into Huntingdon County. However, as this area was settled, much of the barrens habitat was lost as the area was developed or converted to agriculture. Acquisition of SGL 176 in 1973 by the Pennsylvania Game Commission protected the largest remaining tract of this habitat (approximately 6,200 acres) and its associated flora and fauna.

The Scotia Barrens is now one of the largest examples of a pitch pine – scrub oak barrens remaining in Pennsylvania and has been identified as a Biological Diversity Area by the *Centre County Natural Heritage Inventory*, an Important Bird Area by Pennsylvania Audubon, and one of the first designated Important Mammal Areas by Pennsylvania Wildlife Federation.

The unique species assemblages inhabiting the Scotia Barrens is a result of the harsh growing conditions characteristic of typical barrens habitat and also the impact of iron mining and associated settlement activities in the early 1900s.

The soils are naturally well drained and low in organic material which gives rise to vegetation tolerant of low nutrient and water availability such as pitch pine (*Pinus rigida*), aspen (*Populus tremuloides* and *P. grandidentata*), scrub oak (*Quercus ilicifolia*), dwarf chinkapin oak (*Q. prinoides*), and heath shrubs (huckleberry and lowbush blueberry).

This unique habitat supports several extremely rare species of flora and fauna (e.g., barren buckmoth (*Hemileuca maia*), northeastern bulrush (*Scirpius ancistochaetus*), golden-winged warbler (*Vermivora chrysoptera*), and Appalachian cottontail (*Sylvilagus obscurus*)) and also a large diversity of migrating and breeding Neotropical migrant songbirds.

Although the barrens are predominantly dry, additional features of the



Joanne Kamo

Male golden-winged warbler

landscape include the occurrence of scattered depressions that hold water during the spring and early summer (vernal pools) and ponds that hold water year-round.

The geology of the Scotia Barrens also causes it to be an important groundwater recharge area for Bellefonte’s Big Spring, the second largest spring in Pennsylvania. The

Gatesburg Formation

This bedrock layer was formed during Earth’s Cambrian Period, which means when exposed at the surface these are some of the oldest rocks you can find in the state. The Gatesburg consists of sublayers of sandstones, limestones and dolomites (limestone with magnesium). Because of its sand, gravel and limestone nature, the resulting subsoils are coarse and very well drained, yet with some calcium content. Iron deposits in the Gatesburg drew steel magnate Andrew Carnegie to mine certain areas here in the 1880s.

Western Pennsylvania Conservancy 2006

sandy soil in the Barrens allows water to percolate deep into the ground. Under the sandy soil is sandy dolomite bedrock that allows groundwater to flow through and also be stored in its pore spaces, fractures, and openings. Within this bedrock, a fault zone of openings and caverns connects the Scotia Barrens to the Big Spring in Bellefonte.

Groundwater recharge from the 25 square miles of the Barrens is more than enough water to supply the 19 million gallons a day that flow from the Big Spring, which serves as drinking water to many residents of Bellefonte Borough, Milesburg Borough, and Spring, Benner, and Walker Townships.

Rural areas surrounding the Centre Region are quickly transitioning into bedroom communities for the growing town of State College. The area surrounding SGL 176 is currently under extensive residential and commercial development pressure. As additional acres of surrounding barrens habitat are lost and SGL 176 become increasingly isolated by development, the unique biological and water resources of the Barrens are threatened and its ecological integrity is diminished.

The *Centre County Natural Heritage Inventory* recognized the threat that encroaching development has on the barrens. Not only does increasing isolation reduce the ability for species immigration and emigration, maintaining genetic diversity, but it also eliminates the possibility for the PGC to reintroduce fire management into this ecosystem, a recommendation of the *Natural Heritage Inventory*.

THE OVERALL PROJECT

ClearWater Conservancy recently initiated the *Scotia Barrens Conservation Project* to protect this unique habitat for future generations. The



Typical barrens habitat

primary objectives of this project are to protect additional acres of barrens habitat, create wildlife corridors between SGL 176 and Bald Eagle and Tussey Mountains, and create a Scotia Barrens educational program to increase the community's awareness and understanding of this valuable natural resource.

HALFMOON WILDLIFE CORRIDOR

ClearWater's current priority is to secure a wildlife corridor between SGL 176 and Bald Eagle Mountain through Halfmoon Township, a quickly developing residential area north of the game lands centered on Route 550. We are currently in negotiations with several property owners and hope to be able to report some positive results in the near future.

BARRENS EDUCATION

Volunteers from the Land Conservation and Stewardship Committee are developing a project brochure to cultivate interest in the Scotia Barrens and reach out to private landowners. A trail map of State Game Lands 176 is also being developed in partnership with the Game Commission.

OTHER SUCCESSFUL EFFORTS

ClearWater Conservancy is not alone in our effort to conserve additional acres of the Scotia Barrens. In 2006, thanks to the efforts of Patton Township and the Pennsylvania Game Commission, 689 additional acres of barrens habitat adjacent to SGL 176 were permanently conserved with Patton Township's purchase of the Haugh Tract (465 acres) and the Pennsylvania Game Commission's purchase of 224 acres of the Brown Farm in Ferguson and Halfmoon Townships.

Also, since 2004, Halfmoon Township's Open Space Program has conserved nearly 650 acres throughout the Township including portions of barrens habitat and is scheduled to conserve approximately 225 additional acres by July 2007.



Appalachian cottontail (Sylvilagus obscurus)

Riparian Review

by **Louise Comas**, Restoration Ecologist and **Katie Ombalski**, Conservation Biologist

Sections of Slab Cabin Run and upper Spring Creek were declared impaired by PA DEP in 2001. Improving the water quality of these streams has become a focus area of ClearWater in the past few years because of the importance of these streams to the quality of our drinking water and for aquatic wildlife of the watershed. ClearWater's Riparian Conservation Program has focused on these streams and developed several projects with public and private landowners to increase and enhance streamside buffers in strategic spots along these streams and their tributaries. Here are some highlights:

2006 Arbor Day Planting at the State College Elks Country Club

The buffer we installed this spring for Arbor Day is growing beautifully despite the challenging summer we had for establishing plants. The buffer was planted along 700 linear feet of stream in an area previously over-run with invasive and non-native reed canary grass. Native jewel weed established a solid ground cover around the newly planted trees and shrubs and is doing a good job of keeping other competitive weeds out of the area.

It won't be long before the planted trees and shrubs will fill in the buffer area and establish cover over the stream. Many thanks again to the 55 ClearWater and Elks volunteers who planted the nearly 950 native trees and shrubs!



Jeff Harding and his son Andy helped restore their stretch of Roaring Run on the historic Hess Farm.

Nine additional large trees will be added along the stream at the Bahr residence adjacent to the Elks Club this fall to increase vegetative cover over the stream. These riparian tree species will include swamp white and pin oak, red maple, river birch, and American basswood.

Streamside vegetation enhancement at the historic Hess Farm

ClearWater partnered with landowners Jeff and Cindy Harding, the Centre County Conservation District, PA Department of Environmental Protection, US Fish and Wildlife Service, and State College Borough Water Authority to revitalize the existing riparian area around a stretch of Roaring Run, a major tributary of Slab Cabin Run that crosses the Hess Farm. Work on this picture-perfect working farm from circa 1837 involved installing stream bank fencing to exclude livestock from the stream, placing stabilized access points along the stream and watering troughs in the pasture, installing a stoned cattle feeding area, removing invasive species, and planting a 35-foot wide stream buffer on both sides of approximately 1,500 feet of Roaring Run.

ClearWater organized the stream buffer enhancement portion of this project, which now has two of the three planting phases complete. We planted approximately 375 native shrubs and early successional trees in spring 2006 with the help of a very hard-working volunteer, Joe Childers.

ClearWater added an additional 45 large shade trees in September 2006 with ClearWater volunteers Jim and Jess Savage, Kait Williams, and Elliot Slack, and 27 PSU students from Penn State's Fresh Start Volunteer Program. A second invasive species removal was conducted with the help of Dr. Larry Kuhns of the PSU Horticulture Department to further aid plant establishment. An extensive third phase of planting will occur in spring 2007 to complete the buffer and create a vegetated wildlife area around the nearby farm pond.

Purple Loosestrife Removal Program in its Second Year

Purple loosestrife is a non-native noxious weed that can quickly overrun wetlands and streambanks because it is a prolific seed producer that also spreads aggressively by underground runners and broken stems. It is destructive in riparian areas because it displaces native vegetation that provides wildlife food, shelter and stream cover that are important for the health of these ecosystems.

Purple loosestrife appeared to be in the process of establishing itself on the banks of Cedar Run, an important tributary to Spring Creek, and along the main stem of Spring Creek in Houserville.

In 2005, ClearWater targeted our initial purple loosestrife removal to the largest population located on the banks of Cedar Run and several smaller

populations along Spring Creek in Houserville. Purple loosestrife was removed using a safe herbicide specifically labeled for stream banks with the assistance of Dr. Larry Kuhns of the PSU Horticulture Department. Of the dense purple loosestrife stands sprayed in 2005, very little came back in 2006. In its place were many attractive and healthy native plants, such as blue vervain.



Blue vervain

These areas were re-treated in 2006 along with some other small patches on Cedar Run. ClearWater will continue monitoring these areas annually until we are confident that purple loosestrife has been eliminated. Many thanks also to all the landowners who allowed us to look for purple loosestrife on their property and remove it when found.

We anticipate our efforts to control purple loosestrife along Cedar Run and Spring Creek to grow into a larger program for Central Pennsylvania. In 2007, we hope to expand our efforts to downstream sections of Spring Creek. If you live in this area, we hope you will help us out in this effort!

Bringing the Growing Native Program to Centre County

ClearWater has initiated a Growing Native Program in Centre County to collect and propagate locally native riparian species for use in our riparian restoration projects. Growing Native Programs are currently well established in the Potomac area and are growing across Pennsylvania. By collecting seeds and cuttings from local plant populations, we insure using plants with the most suitable genetics for local environmental conditions and

we expand the occurrence of these plants in our local watersheds. We will be working with Paul Heasley and the State College Area School District Ag Science Program, and Jim Savage of the PSU Horticulture Department to propagate and grow the plant material.

We have a head start on collecting plant material but are looking for a volunteer to help coordinate the collection of material this fall. We welcome any individuals or groups that can give us permission to collect

seeds or cuttings of native riparian plants such as silky dogwood, elderberry, blackhaw viburnum, spicebush, and speckled and smooth alder; help collect plant material or help grow plants to get involved and join us in this worthwhile program!

Local Streams Given Official Names

ClearWater's Riparian Conservation Program began a stream-naming initiative to draw attention to the significance of Centre County's small waterways and encourage citizens to identify with their surrounding environment.

The newly named "Potter Brook" originates on Nittany Mountain and runs approximately two miles southeast before conjoining with Mackeys Run just east of Linden Hall. Much of the brook flows through the Potter Farm, a 197-acre Bicentennial Farm that was recently conserved by two separate conservation easements and the installation of a 35-foot wide riparian buffer, which ClearWater was integral in establishing.

The second newly named stream flows through Boalsburg behind Kelly's and Omega Bank and has adopted the title of "Tannery Run" in honor of the tannery that graced the stream banks in years past.

New Plans for Spring 2007

In spring 2007, ClearWater will be partnering with the State College Elks Club, U.S. Fish & Wildlife Service, and PA Fish & Boat Commission to restore an unnamed tributary to Spring Creek, which flows from Tussey Mountain, crosses under Route 322, and merges with Spring Creek on the Elks golf course. The project scope includes bank stabilization, fish habitat structure installation, and riparian buffer planting. We look forward to the challenge and are confident we can come up with a design to meet the needs of the stream and the course.

Keep a lookout for a native riparian plant propagation workshop that we are planning to encourage the expansion of riparian buffers with native vegetation in the area.

Also watch for a joint land management practices workshop that we will be organizing with the Centre County Conservation District on healthy watershed conservation practices for better farm management.



The Potter family managed to keep the stream naming a surprise from Taylor Potter, who was delighted with the news at the ClearWater summer picnic at the Potter Farm.

WRMP Monitors the Effects of Tropical Storm Ernesto on Local Streams

While most people were concerned about what impact tropical storm Ernesto would have on Penn State's first home game, the Water Resources Monitoring Project (WRMP) worried about the impacts the storm would have on the local streams. The WRMP, equipped with automated samplers and water level recorders, took water samples every two hours beginning Friday at noon until mid-day Sunday the weekend the tropical storm occurred. The suite of samples covered stream conditions before Ernesto began dumping rain on the area, during the storm's height, and after conditions improved.

"The Water Resources Monitoring Project initiated storm-water monitoring in 2005. We realized the importance of measuring the local effects of storms, specifically on the urban influenced Thompson Run and Slab Cabin Run which flow into Spring Creek a renowned trout fishery", said project manager Becky Dunlap. The

Water Resources Monitoring Project partnered with Trout Unlimited to install storm-water sampling equipment above and below the Millbrook Marsh to collect data before a consortium of partners construct in-stream structures that will cause storm water to slow down and flood the wetlands adjacent to the stream channel. As the water infiltrates the wetland, pollutants are removed naturally by the plants and soils.

"We are trying to determine what and how much potentially damaging material is entering the streams as a result of runoff" remarked Dunlap. "We have been collecting data for more than a year and results conclusively show that higher concentrations of pollutants are found in storm water than are found during normal conditions".

The forecasted use of this type of data is predicted to be high since Pennsylvania's Department of

Environmental Protection released the Chesapeake Bay Nutrient Reduction Strategy in 2002. The state's goal is to reduce all nutrient and sediment impairments to the Bay by 2010. "Our data will help to determine the quantity of pollutants being delivered to the Bay from the Spring Creek Watershed." Dunlap continued that "Our project is very unique. We operate almost entirely with pledges from local municipalities, authorities, and organizations. Our storm water efforts are funded through grants but the remainder of our activities, which include the continuous collection of water quality and quantity data and outreach, are supported by pledges. This speaks volumes about the commitment our local governments and organizations have made to ensure clean and healthy water in the Spring Creek Watershed."

Learn more by visiting the Spring Creek Watershed Community website at www.springcreekwatershed.org.

ClearWater **Newsbriefs...**

NEW RIPARIAN BROCHURE

ClearWater Conservancy's Riparian Conservation Program recently developed a brochure featuring information on riparian buffer installation, enhancement, and protection to distribute to riparian landowners and other interested community members.

For more information about how you can enhance or protect your riparian property, please contact Katie Ombalski at 237-0400 or katie@clearwaterconservancy.org.

MEET OUR OFFICE MANAGER

Lindsay Williambrown joined ClearWater in August after resettling in State College from New Orleans earlier this year. She brings to ClearWater a broad-based business background in auditing, programming and strategic development for non-profit and private sectors.

Originally from Dallas, TX, Lindsay has worked with and studied the consequences of natural/human resource shifts as results of immigra-

tion; operational management from an intercultural perspective; and sustainable development. She grew up immersed in the nonprofit sector and has completed fields of studies as an ethnic anthropologist in Central America, the United Kingdom, and the U.S.

Since joining ClearWater, Lindsay has focused primarily on familiarizing herself with ClearWater's total financial system. She has also been quickly integrating herself into the community and examining internal ClearWater systems to find ways of maximizing our volunteer interests.

A NOTE FROM JENNIFER



Hello Friends...

What an exciting couple of months at ClearWater! First and foremost, we closed the deal on Musser Gap. This acquisition was our biggest land conservation challenge to date, and I'm pleased to say that our staff and volunteers stepped up to that challenge and made this dream a reality. Special thanks go to Mac Rayback, a local attorney on our Board who donated his time and legal expertise to this project and Katie Ombalski, ClearWater's Conservation Biologist and the Musser Gap project manager.

In the spirit of this success, and the many more soon to follow, I hope each and every one of you makes a personal commitment to conservation by pledging to ClearWater's Campaign for Conservation.

We need your financial investment to keep our existing projects moving forward efficiently to completion and to develop new projects based on our collective vision and the priorities we are establishing through our Conservation Action Planning process with Western Pennsylvania Conservancy.

If you look forward to learning what's going on at ClearWater through the newsletter, but you haven't been able to come out to an event and meet your fellow members in person, I invite you to come out to our Annual Banquet on November 7. Be sure to RSVP by the end of October to get a seat!

Finally, I have to praise a great group of volunteers. Thanks to the tremendous work of a dedicated planning committee and an already loyal following of golfers, our second Otto's Golf-fest brought in over \$15,000 to support ClearWater's natural resource conservation mission. This is well more than doubled last year's tournament revenue! Fabulous job everyone, but especially to Joe Bishop, Ford Stryker, Matt Genchur, Steve McKenna, Pat Morse, Laurene Keck, and Roger Garthwaite of Otto's.

THANK YOU to our 2006 Otto's Golf-fest Sponsors and Donors for their generous support.

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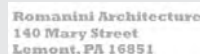
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The mission of the ClearWater Conservancy is to promote conservation and restoration of natural resources in central Pennsylvania through land protection, water resources protection, and environmental outreach to the community.

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Fall 2006

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Thank you for your support!



Stan Crilly

Everyone Working Together to Conserve Natural Beauty
and the Environment in the Heart of Pennsylvania

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2555 North Atherton Street, State College, PA 16803
(814) 237-0400 www.clearwaterconservancy.org
contactus@clearwaterconservancy.org

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