

# Cooks Current

*"To protect, preserve and improve the quality of water, land and life in the Cooks Creek Watershed"*

Volume 5, Issue 3

Newsletter of the Cooks Creek Watershed

Fall 2008

## 2008 CCWA Events

### Regular Board Meetings:

#### *Springtown Fire House*

**7:30 PM** (Sept. 25, Oct 23, Nov. 20, Dec.18)

*All are welcome! We appreciate your involvement!*

### *Special Events:*

- Oct. 4 Fall Fellowship Dinner
- Nov. 1 Fall Clean Up



See Back Page for Details!

**We're on the web!**  
[www.cooks creek.pa.org](http://www.cooks creek.pa.org)

**Cooks Current** is a publication of the Cooks Creek Watershed Association.

### **Board Members:**

#### **President:**

W. Scott Douglas

#### **Vice President:**

Hans Reimann

#### **Treasurer:**

Charlie Klein

#### **Communications Director:**

Sherry Brodhead

#### **Recording Secretary/Editor:**

Lois Oleksa

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Jim Orben

Margaret McDonald

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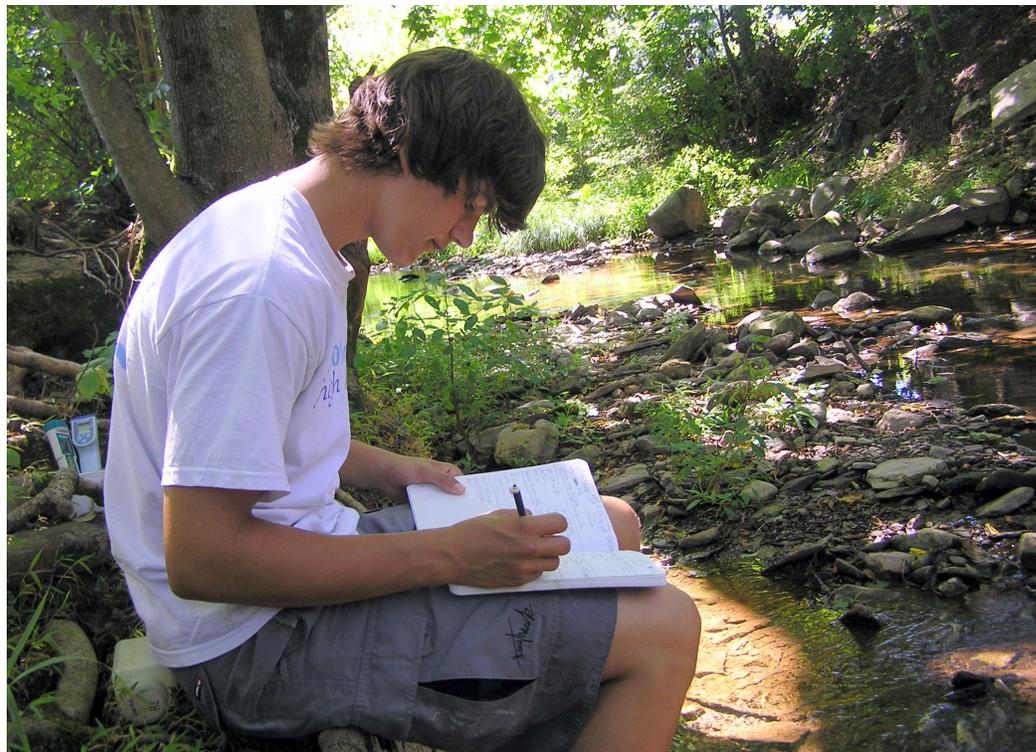
Stephen Smith, MD

Pat Raynock

#### **Layout & Graphic Design:**

Ellie Scheitrum

## From Across the Board...



*James Douglas records water quality data.*

### *From Across the Board...*

As you read this, you are most likely in the fall "back to the grind" mode, and the memory of a summer of fun is rapidly fading. The CCWA was certainly busy with lots of summer fun, and is gearing up for the fall too. Before we forget, let me recap the summer's highlights. Our educational programs were well attended: from the Earth Day celebration at Pali-sades Middle School to the Mini Monster Mayhem, to

the Fly Fishing Workshop. Hans has been very busy working on a native plant garden at the Springfield Township building, and hopes to begin one at the well house behind the Springfield Community Hall soon. CCWA had a booth at the Springfield Community Day in August, where there were mini-monsters in abundance for the kids and kids at heart to look at, along with the usual plethora of information, handouts and t-shirts/book bags for

sale. Look for the CCWA booth at Durham Day on October 4 too!

Our annual meeting was held just before the spring dinner in early June. The Board elected all of the same familiar faces to the officer positions: myself as President, Hans Reimann as Vice President, Sherry Brodhead as Communications Director, and Charlie Klein as Treasurer. Following the meeting, we were treated to an

*(Continued on page 2)*

*Across the Board, Cont'd from page 1*

avalanche of home cooked goodies thanks to the organizing talents of Judy Siegfried and Denise Oakey. We liked it so much; we will repeat the event next year, so mark your calendar for Saturday April 25, 2009 with the annual meeting to precede the potluck. Can't wait until spring? Then make sure you attend the Fall Potluck on Saturday October 4<sup>th</sup> where we will have a special guest to talk about nativescaping.

Probably our most visible event this summer was the Springfield Farmer's Market. Sherry has spent an enormous amount of time on this, and it has been a smashing success! We have had our booth at all the Wednesday markets, spreading the good word of conservation. I hope each of you has the opportunity to check out the Market, and let Sherry and the other organizers know what you think. Next year, the Farmers Market steering committee will be looking for a new chairperson, so if you are into the concept of local food grown well, talk to Sherry.

We are fortunate to have received a small Neusch Foundation grant from the Lehigh Valley Community Foundation. The funds were used to purchase more equipment for the adopt-a-reach program. Baseline sampling is now being performed on various water quality parameters (alkalinity, hardness, dissolved oxygen, pH, conductivity and nitrates) on a quarterly basis by the Palisades Stream Team, headed up by James Douglas. The team has installed continuous recorders at the 16 locations in the watershed to monitor temperature. Thermal pollution from stormwater impoundments, lost riparian vegetation, and reduced groundwater input is a serious concern in the watershed. James will be using our newly purchased GIS software

to help analyze the data by correlating the results to land use on a reach by reach basis. Results will be put up on the CCWA website ([www.cooks creekpa.org](http://www.cooks creekpa.org)). Thanks to Steve Smith, for making us aware of the grant opportunity.

This award, given by the Bucks County Conservation District, praises all of our hard work to bring the community of the Watershed together to celebrate what we have and protect it for future generations. Any of you who have participated in a CCWA event, helped us with a project, or just paid your dues, contributed to the success of the Association. We should all feel proud to be a part of CCWA and share in this award. Well done!

Yours in Conservation,

W. Scott Douglas, President

## The Black Gum Tree

By: Alan Miller



Black Gum Tree picture from:  
<http://www.arborday.org/treeguide>

Black gum is a North American tree with spectacular fall color, tough lustrous green summer leaves, and an appealing pyramidal and irregular habit or shape. It is known by so many different common names—black gum, sour gum, tupelo, pepperridge, and occasionally, red gum—that it is difficult to reference except by its Latin name, *Nyssa sylvatica*. The gum part of the common names is puzzling as the tree does not produce any sappy gum. *Tupelo* is apparently an English corruption of the native Creek name, *eto opelwu*—tree of the swamp—according to Peattie's [A Natural History of Trees](#). We know that name now more as the Mississippi hometown of Elvis Presley and *tupelo* may be a more appropriate name for another American tree of the same genus, *Nyssa aquatica*, the more southerly water tupelo. *Nyssa* is the name of a water nymph in Greek mythology and *sylvatica* is the Latin

*Black Gum Tree Continued on page 3*

*Black Gum Tree Continued from page 2*

adjectival form for forest. There are five members of the *Nyssa* genus, all from North America and eastern Asia. The Chinese *Nyssa sinensis* is occasionally encountered in the trade although this author has not had success with it in our area after two attempts. *Nyssa* is a member of the Cornaceae, or dogwood family.

Black gum is native to our area and to most of the eastern United States from Maine west to southern Wisconsin and south to eastern Texas and Florida. It is a rugged tree capable of surviving in swampy woods, dry ridges, and burned out slopes. It re-establishes after fire or major storm or trauma by suckering from its roots and these shoots form pure clonal stands under such circumstances. Black gums can survive up to 700 years, according to Rhodes' and Block's, Trees of Pennsylvania.

They list the official state champion in size as 81 feet high and 4 feet 8 inches in diameter. This author saw an ancient example on private land next to Sandy Hook Wildlife Preserve in Delaware that was well over 100 feet high and about 10 feet in diameter. Black gum does not grow quickly and has a reputation for being difficult to transplant because of its tendency to develop a taproot. When a relatively young balled and burlapped black gum is planted with its root crown above the soil line in early spring and supported with adequate water until established, success in our area is not difficult.

Black gum resembles the pin oak in form although with more twisting branches and secondary branches angling sharply at approximate right angles from the main branch. In youth, its stiff lower branches angle toward the ground. As the tree ages, the later branches become first horizontal and then angled upward. Old black gums have usually lost their lower branches and are upright oval or sometimes flat topped. The dark grey bark is furrowed and forms into blocky plates with age. The leaves are 2 to 5 inch pointed ovals (elliptic) and are alternate or whorled at branch ends; sucker and sapling leaves can be considerable larger. The inconspicuous flowers are produced about the

same time the leaves appear. Individual black gum trees have predominantly flowers of one sex (dioecious) although there exists some confusion as some predominantly male trees occasionally produce limited fruit (polygamo dioecious) implying a few bisexual (perfect) flowers. The fruits are dark blue drupes less than a half-inch long, ripening in the fall and the seed is spread by birds and mammals attracted to the fruit as food. The wood of black gum was rarely used traditionally except for tools and war clubs as it is so interlocked it is almost impossible to split and it does not weather well. The wood in a sawn form is very infrequently encountered in American antique furniture and resembles very interlocked yellow poplar (tulip poplar, *Liriodendron*, a magnolia family tree) or red or sweet gum (*Liquidambar*, a witch-hazel family tree). Native Americans used black gum bark for various medicinal uses although no current pharmaceutical applications are popular.

In late August or early September black gum trees in our area begin to sparkle with scattered bright scarlet red and occasional orange or purple leaves. Here in upper Bucks County the dazzling peak fall color occurs in later September or early October. The black gum slope at the Morris Arboretum in Philadelphia is at its peak in late October. This scattered grove was hit by a tornado 15 years ago and has recovered remarkably with scattered sucker groves and the surviving trees assuming very irregular shapes. The leaves do not persist in fall



BLACK GUM

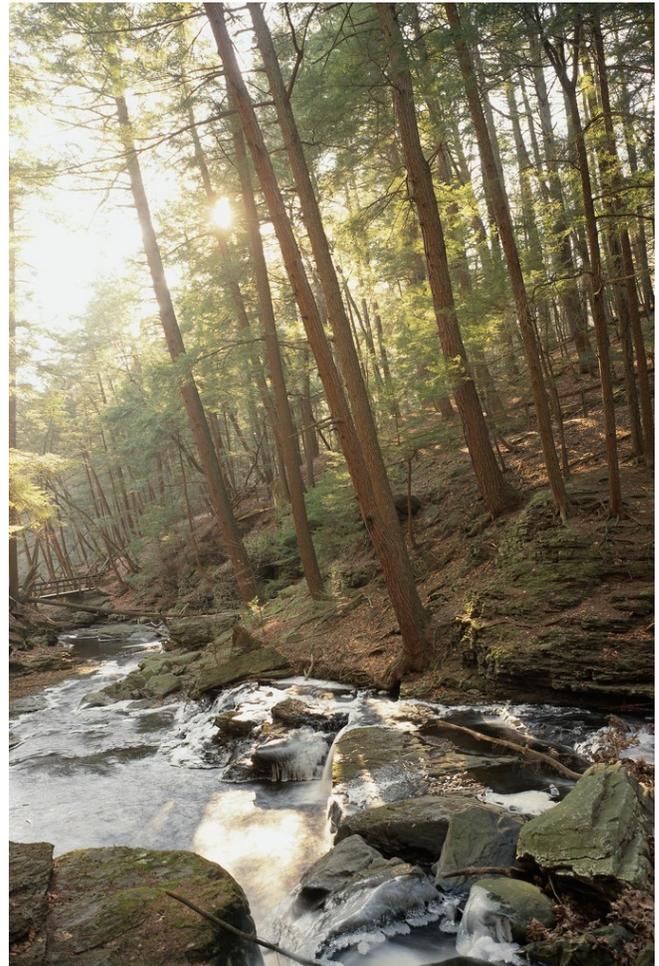
<http://www.dof.virginia.gov/trees/gum-black.shtml>



## ***ANKE M. ELLIS***

It is with deep sadness that we report the passing of one of the elder statespersons of the Cooks Creek Watershed Association. Anke Ellis was 83 years old when she died on July 14<sup>th</sup> of this year. Her work with the Cooks Creek Watershed Association was noteworthy on several fronts. At various times she served as Co-Chair, Legislative Liaison, Vice-President, and also played an important role in Cooks Creek gaining its current classification. In the early days of the Watershed Association, she played a key role in stream improvement efforts and worked tirelessly with an active group of volunteers, Boy Scouts, and Trout Unlimited in making substantial improvements to the stream banks to curb erosion. The magnitude of her efforts and time spent were graphically displayed when, in one year, she attended over 80 workshops, meetings, conferences, etc. and totaled over 15,000 miles on her car. Her dedication to the tenets of the Association was legendary and she was always one of the first to volunteer for projects. In conjunction with the Delaware River Keeper, she served as a water sample collector for a number of years. She also participated in the Christmas Bird Count for several years and was always an eager participant when the Association sponsored walks on the Nature Trail and along the creek.

Anke was born and reared in Germany. She taught German at Lehigh University where she had received her Masters degree. She played a leading role with many organizations in Bucks County and Bethlehem, but her interest in conservation always took first place in her heart. The Association's condolences are extended to Anke's husband, Mark; and her daughter Ursula.



# In the Watershed

By: Jim Orben

It was Sunday. The summer sun was rising. It was cool with a light fog in the valley, the perfect time for a ride. Off I went, down the road, alone in the morning. My tires crunched the gravel as I peddled. The low angle sun reached its yellow shafts like spotlights through the trees. I watched for deer but saw none. I came out of the forest and in the field on my right was a flock of Canada Geese grazing in the stubble of harvested wheat. I rode on and the sun rose higher in the sky, making the scene brighter, the shadows shorter and more crisp. I passed a meadow with a small pond and a brook. There were cattle grazing; cows with calves, heads down, moving slowly and quietly in their search for tasty grass. I stopped. On the wires of the fence that surrounded their pasture were spider webs. The strands were covered with drops of dew not yet dried by the strengthening sun, but lighted like beads of fire. Between the fence and the road edge was a bouquet of summer; a mix of white and blue and yellow. Queen Anne's lace and chicory punctuated by two or three different yellow blooms unknown to me. I crossed the creek. The stream passed quietly under the bridge. The flow was slow in its August dryness, wrapping itself around rocks and fallen tree trunks. In headier times the water would have been rushing by noisily washing the rocks and making the logs bob up and down in its fullness. But today was not that kind of day. I crossed a band of small white splotches on the road. Turkeys had been here before me. Since the marks were dry I couldn't say exactly when, but certainly they had passed this morning. I started up the hill and passed a small blue sign that said, "This Land Preserved ..." and I smiled. I crossed another bridge, this one taller and a little broader as the stream had flattened out a bit. When I stopped, a bird flushed from the bank, flew a short distance up stream and perched on a branch that was sticking up out of the water from a fallen tree. I stood and watched this green heron wait for a fish to come within reach. It was absolutely still for minutes, waiting, watching, posing it seemed. I was not as patient and rode on. I was nearing the town and came upon a brick house set off the road. It was an "I" house. It had an entrance door with a window on each side and three windows above. The full front porch had four pillars. Steps and a concrete walk reached welcomingly to the road. There were shutters. The beautifully symmetrical scene was broken by a riot of plants on the porch and hanging from the roof edge. On I went to my rendezvous with a cup of coffee and a muffin. After a short rest I turned for home and the chores of a Sunday afternoon. I love these rides in the country. The sights and sounds blending with musings and dreams make for a richness not often found anywhere else.



# Ruminations on Cooks Creek Watershed Geology

By: Bobb Carson

Several newsletters ago (CCWA Newsletter Vol.4, Issue 2, Spring 2007), I described the various rock types that exist within the Cooks Creek watershed. At the time, I promised that geologic primer would be followed, fitfully, by additional articles that examine just what those rocks tell us about the evolution of this bit of Pennsylvania real estate. This piece is the first elaboration on the local rock record.

Like any involved tale, this one will be most understandable if we begin at the beginning. I had suggested that the Cooks Creek watershed's "oldest rocks are Pre-Cambrian (formed >570 million years before present (MYBP)) gneisses situated along the northwestern border of the watershed and in a northwest-trending band that extends from Durham Furnace to a point south of Springtown." Gneiss (pronounced "nice") is a metamorphic rock, which means that it has undergone partial melting and plastic flow deep in the Earth's crust. These conditions result in segregation of the precursor rock material into bands of prismatic (commonly quartz) and elongate (often feldspar) or flakey (hornblende) minerals. The hornblende-rich varieties show dark bands, whereas quartz and feldspar gneisses are commonly mottled white to light brown and take on the appearance, as well as the mineral composition, of granite (an igneous rock). Needless to say, these rocks that were once buried several miles beneath the Earth's surface have been uplifted and exhumed, and there's a story to be told there....."

To begin that story, these Pre-Cambrian gneisses are probably about 1 billion years old (i.e., Late Proterozoic era). We don't know that age from these particular rocks, but infer it from their position, similarity, and association with analogous metamorphic rocks found throughout the Appalachians, which have been repeatedly dated by radioactive decay methods. All of these rocks were formed about the same time, during a major tectonic event known as the Grenville Orogeny. (Note: tectonic refers to movements within the earth's crust and an orogeny is a mountain-building event). Given what we know about other orogenies and the movement of large plates that make up the surface of the earth, we infer that two or more continents collided during the Grenville Orogeny, thickened in the collision process, and welded themselves into a new, much larger continent. (A more recent example of this process is the collision of India with the Asian continent that has produced the Himalayas and the Tibetan Plateau). When the continents collided and thickened, some of the rocks of which they were composed were deeply buried and metamorphosed to become gneisses (as well as other metamorphic rocks). Over hundreds of millions of years, erosion wore down the overlying mountains created in the collision and exhumed the metamorphic rocks that we see today between Durham Furnace and Springtown.

Collision, uplift, and the eventual erosion of the Grenville terrain was not a unique event, for plate collision and mountain-building have been an on-going and oft-repeated cycle around the world for at least 4 billion years. But it was a significant occurrence (involving

land that now extends from Scotland to Newfoundland, through the Canadian Maritimes to Georgia) and created a major mountain terrain across what is now the Cooks Creek watershed. Indeed, it created a supercontinent (known as Rodinia) that incorporated most of the Earth's subaerial crust into a single land mass centered near the equator.

So what was the world like back then? The Earth had coalesced from stellar material some 4.5 billion years ago, and had evolved an early atmosphere and oceans that could support life by approximately 3.7 billion years before present. Marine life, which persisted to and through the Grenville Orogeny (i.e., over 2.7 billion years), was comprised largely of bacteria, photosynthetic cyanobacteria, and single-celled algae. About the time of the collision, some multi-cellular plants had begun to appear, but animals had not yet evolved and no life forms existed on land. So, the Grenville Mountains were just raw, unvegetated, rock extrusions subject to very rapid erosion. The high-gradient precursor streams to Cooks Creek must have been vigorous and heavily sediment-laden, much like the streams and rivers that drain the modern Himalayas. And the Grenville highlands almost certainly supported mountain glaciers (and perhaps, at times, continental glaciers since the orogeny encompassed known climatic glacial cycles) that would have further accelerated erosion. In all, the present watershed was, in the late Proterzoic, a barren, elevated, inhospitable and, ultimately, unsustainable landscape.

Conditions were to become somewhat less austere by the Cambrian period (570-505 MYBP), when sandstones and limestones were deposited next to the Grenville gneisses. But more on that another time.....



## ***COME SEE THE CCWA AT DURHAM COMMUNITY DAY***

located on the Durham Green

SATURDAY, OCTOBER 11, 2008 from 1-5 PM



# Riegelsville Borough Joins Trail Project

By: Amanda Cregan

*The Appalachian Mountain Club hopes to establish a network of hiking trails throughout Upper Bucks.*

Council members threw their support behind a project that would connect Riegelsville to Pennsylvania Highland trails. Appalachian Mountain Club's Mid-Atlantic recreation planner Jennifer Heisey approached the Riegelsville board with some preliminary plans at its meeting Wednesday night.

“We consider Riegelsville to be the gateway of the Highlands,” she said. Heisey is working to establish recreational hiking trails throughout Upper Bucks in hopes of crossing the Delaware River and linking them up to the 150 miles of existing trails that stretch through New York and New Jersey.

“We want to put in new trail segments,” she said. Heisey, who is already working with officials in Lehigh and Northampton counties, told board members she will begin meeting with townships throughout Bucks County this fall. “We really want people to be involved with the project and provide feedback for the county they live in,” she said.

Appalachian Mountain Club volunteers are already mapping potential trails throughout Upper Bucks in hopes of eventually creating recreation maps for county residents who want to hike sections of the trail near their homes.

The club is working toward a Welcome to Pennsylvania Highland Trail Celebration that will introduce the trail to Bucks residents and local lawmakers and celebrate its establishment in Pennsylvania. The Pennsylvania Highlands stretch 1.4 million acres across the southeastern portion of the state.

The Appalachian Club is more than just a recreational hiking group. The multi-state club is America's oldest nonprofit conservation and recreation organization.

Its goal is to promote protection, enjoyment and wise use of the mountains, rivers and trails of the Appalachian region. Heisey says her chapter's mission this year will be to work with federal lawmakers to further protect the Cooks Creek Watershed. Council members applauded the group's efforts and said they will help get the word out to Riegelsville residents.



*Amanda Cregan can be reached at 215-538-6371 or [acregan@phillyBurbs.com](mailto:acregan@phillyBurbs.com).*

*On the web:  
Appalachian Mountain Club  
[www.outdoors.org](http://www.outdoors.org)*

## Highlighting this Quarter's INVASIVE PLANT: Japanese Hop Vine (*Humulus japonicus*)

*By: Hans O. Reimann Jr., The View from Laughing Springs*

This plant was introduced into our country as an ornamental in the late 1800's. It is classified in the hemp family of plants (Cannabaceae). Due to some chemical differences, it can not be substituted for the common beer hops. This annual vine usually has 5-lobed leaves, but upper leaves may only have three lobes; some vigorous plants may have 9 lobes. Leaves are arranged opposite each other on stems by a long leaf stalk. Leaves and stems are covered with downward pointing rough hairs (gloves are advisable when handling as some folks may experience minor skin irritations). Japanese hop may grow 35 feet in one growing season.

Individual flowers are greenish, 5 petaled with male and female flowers on different plants. Flowers grow out of the leaf axils with female flowers (0.5in) hanging down in cone shaped clusters and male flowers blooming along upright flower stems (6-10 in). Then seeds form in the female clusters.

Habitat favorable to this plant includes disturbed, open ground; along riversides, old fields and roadsides. You can view this plant locally in Riegelsville, along Durham Street (canal side) actually over-running another invasive, Japanese knotweed. I guess there is no honor among these habitat thieves! Its rapid growth highlights the danger to native plant communities by blocking light and occupying space. Seeds are dispersed by wind and water and the pollen can cause allergies. Vines can be hand pulled but wear gloves. Glyphosate (weed killer) is suitable for application on leaves before flowering and to cut stems in late summer.



If you like vines, the native trumpet honeysuckle and greenbriar are good substitutes for Japanese hop vine.

Thank you for your time, and enjoy our native plant communities.

# The Springtown Farmers' Market - What a Gem!



Written by Sherry Brodhead



I'm sure by now most of you have discovered the pleasure of shopping at The Springtown Farmers' Market and have reaped the benefits of cooking with garden fresh vegetables, quality meats and fresh eggs. I know that for me, it has been a fun experience trying new varieties of potatoes, heirloom tomatoes, munching on raw kohlrabi and enjoying cucumbers without all that waxy stuff on them! My family loves it when I bring home goat cheese quiches for dinner along with the biggest, sweetest, plumpest blackberries that I have ever seen. Did I mention the divine vegan chocolate brownies.....and the hibiscus herbal iced tea which I am now addicted

to? And the organic coffee so freshly roasted that, well, the coffee I bought today was actually roasted this morning? Yumm! I have also discovered the handmade jewel weed soap, perfect relief for that itchy feeling after a day weeding in the garden! OK, now you know all my weaknesses (well not all, but this is about the Farmers Market!). Do I love the market....YES!

Maria Weick, the market manager, has done an amazing job getting this new venture up and running. I help her out when I can but we would love to expand our merry band of volunteers. Maria has informed us that she will be hiking the Appalachian Trail for the duration of the summer next year (!) so consequently, as of March 1 of 2009 she will not be available to continue with her position with the market. Throughout this winter she will be doing all that she can to get the vendors lined up for the 2009 season but after

that we will need a replacement. Thus we are searching for an enthusiastic soul who loves community and good food to fill in as market manager for next year. There is so much potential here and it will be most rewarding to see this venture evolve!

As well, we would truly welcome to hear what you have to say about the market – the good and the bad! Do you have ideas about what more we can offer? Would you like to have more prepared food available, see more crafts or demonstrations? Do you have any advertising or fundraising ideas? Please feel free to send us an email message at [Springtown-FarmersMarket@gmail.com](mailto:Springtown-FarmersMarket@gmail.com) to express your opinion call either Maria, 610-346-8793 or myself, 610-346-8484. We would love to hear what you have to say.

In the mean time.....**COME ON DOWN!! THE SPRINGTOWN FARMERS' MARKET,**

**Wednesdays, 4-7PM at the Springtown Firehouse**

There is a strong possibility that Springfield Twp. will receive a favorable decision from the PUC judge regarding the PPL power line route contro-

## Native Bees, Local Energy, Native Plants, Local Food:

By: Hans O. Reimann Jr., A View from Laughing Springs



versy. Win or lose, the local, regional community should rally around the concept of producing energy ourselves. A coalition between individuals, municipalities, school district institutions, faith based institutions, businesses and other local organizations should urge our local, county, state and federal legislators to help us produce our own power. Springfield Twp., as a keystone community; and the Cooks Creek watershed, as an environmental jewel, could become a center for local renewable energy production and distribution. Could the Springfield Twp. building go off the energy grid by 2021, the year the main group of 17 year cicadas re-emerges from

their underground lairs?

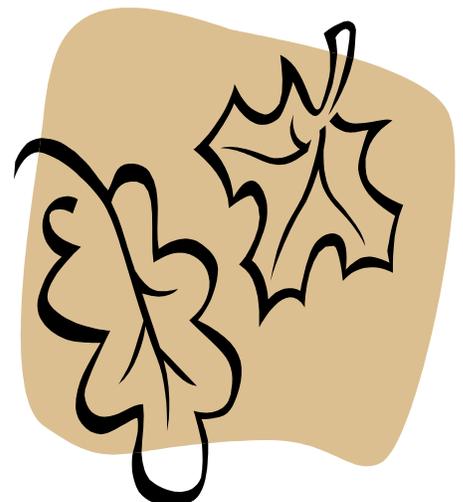
With many local farmers growing food for horses, some fields could be coaxed back to native grasses and plants that could be used in the bio-fuel market. My vision includes a combination of cultivated horse fare grown on the optimum fields, while areas near flood plains, riparian corridors, and marginal soils could be utilized for biofuel sources with little or no energy intensive fertilizers or other preparation. Harvest and then watch the native plants grow back!

The goal of energy independence can be a multifaceted, galvanizing philosophy for our community, leading to sustainable lifestyles for all of us in the Cooks Creek watershed and surrounding environs.

This twelve year plan of inspiration should also include educating and implementing local native habitat enhancement and restoration. This trail of thought can lead to stable and growing native bee populations by understanding

the native plant communities that support them, thus enabling more local fruit and vegetable production with a reliable pollinating insect population.

*Many thanks from Laughing Springs.*



**Cooks Creek Watershed Association**  
**Statement of Financial Position**  
**Submitted by: Aimee Douglas, CPA**

**March 31, 2008**

<b>Assets</b>		<b>\$ 16,842.00</b>	
<b>Liabilities</b>		<b>None</b>	
<b>Unrestricted net assets</b>		<b>\$ 14,842.00</b>	
<b>Temporarily restricted net assets</b>		<b>\$ 2,000.00</b>	
<b>Total liabilities and net assets</b>			<b>\$ 16,842.00</b>

**Statement of Activity**

<b>For Year Ended March 31, 2008</b>			
<b>UNRESTRICTED NET ASSETS</b>			
<b>Total revenue and support</b>		<b>\$ 4,061.00</b>	
<b>Net assets released from restrictions</b>		<b>\$ 3,464.00</b>	
		<b>\$ 7,525.00</b>	
<b>Total expenses</b>		<b>\$ 6,798.00</b>	
<b>INCREASE IN NET ASSETS</b>			<b>\$ 727.00</b>

**Statement of Changes in Net Assets**

<b>For Year Ended March 31, 2008</b>			
	<b>Temporarily</b>		
	<b>Unrestricted</b>	<b>Restricted</b>	<b>Total</b>
<b>Balance March 31, 2007</b>	<b>\$14,115.00</b>	<b>\$ 5,464.00</b>	<b>\$ 19,579.00</b>
<b>Increase in net assets</b>	<b>\$727.00</b>	<b>\$ (3,464.00)</b>	<b>\$ (2,737.00)</b>
<b>Balance March 31, 2008</b>	<b>\$14,842.00</b>	<b>\$ 2,000.00</b>	<b>\$ 16,842.00</b>

## Creature Feature: Northern Red Salamander (*Pseudotriton ruber ruber*)

By: W. Scott Douglas

*This the eighth installment of a series of articles on the fauna of the Cooks Creek.*

I was walking along the Creek behind my house in early August, on my way to download the stream gauge, and caught sight of a creature that I knew existed in the Watershed, but had yet to see. The bright red-orange salamander was a good 5-6 inches long, and it scooted under a rock as I walked along the stream edge. Now, red amphibians are not something you see every day, so I carefully picked up the rock to see what had hidden there. What I saw was a young Northern Red Salamander, looking exactly like the one in the picture to the left. He was not a willing observation subject though, and when I went to pick him up to examine him, he scooted into the creek and swam downstream. I took the hint and left him alone.

Red Salamanders live in clear cold streams, seeps and headwaters throughout the eastern US. They are predators, feeding on small insects, worms and other invertebrates, and even small salamanders. They have a sticky projectile tongue, like a frog, that they use to capture prey. Red Salamanders are preyed upon by birds, skunks and raccoons, so they like to remain hidden during the day and hunt primarily at night (probably another reason why the one I saw was so anxious to get away). Had I been a predator, I might not have eaten him though, as he actually secretes a mild toxin, called pseudotritotoxin that tastes bad. Perhaps due to the toxin, Red Salamanders can actually live quite a long time, up to 20 years! In the fall, females lay between 30 and 130 eggs under rocks in and near the water. When the eggs hatch, the larva, which will have gills, lives in the water for 3-4 years before molting into the adult form. Young Red Salamanders are bright red-orange, as they get older the spots tend to blur together and the color darkens to a salmon or even purple color.



While any amphibian is fun to find and watch, I was particularly happy to find this one as it is an indicator of high water quality, healthy riparian buffers, cool water temperatures and low siltation- all the qualities that we want to see in our beloved Creek. Finding salamanders is always a tricky proposition. Their skin has to stay moist, so they can be found under rocks, moss, leaves and logs. Some will utilize burrows dug by other forest denizens. Red Salamanders are typically terrestrial in the spring and summer, but are more aquatic in the fall and winter when they will crawl into bunches of

leaves caught between rocks and logs. You can try to rout one out of its hiding place, but it is easier to find one by looking for them when they are hunting. After (or during) a good soaking rain, walk along a forested stream bank at night, and shine a flashlight on the ground as you go. You may be surprised at what is out and about.

## Children's Backyard: Spider Web Art

By: David Oleksa

Spiders are amazing creatures; and the webs that many of them create are amazing and beautiful as well.

The spider silk that the web is made of is incredibly strong. Scientists have proven that it is five times stronger than an equivalent strand of steel. It is twice as elastic as nylon and is both waterproof and stretchable. Many people have heard of Kevlar, a relatively recent invention that is used in the manufacture of bullet-proof vests that police wear. Spider silk is tougher than Kevlar.

Another amazing fact is that spiders have been producing silk for over 100 million years. But recently, scientists have learned how to genetically engineer goats' milk to produce spider silk. The silk proteins that are taken from the milk are spun into fibers. Material for making surgical sutures and fishing line are then produced. These materials are eco-friendly because they are stronger than nylon but will decompose over time.

Did you ever wonder how a spider takes his silk and spins a web? The most common web is that of the orb weaver spider. From several spinneret glands located by the abdomen, several different types of threads are spun. Some threads may be sticky and some might be fluffy. Both help the spider catch his dinner.

If you've ever seen a cobweb stretched between two limbs of a tree or even between two trees, you've probably wondered how the spider gets the first thread across. Does she fasten an end and then walk the loose end across to the other support? The answer is no. The spider exudes a sticky strand of silk from its spinnerets and lets the wind carry the loose end to a close enough second support. The sticky strand glues itself to the support and then the spider carefully walks along the strand while simultaneously reinforcing it with a second strand. When she is certain that the main support line is strong enough, she connects a loose thread to points near the ends of the main line. She then climbs down the loose loop of silk, attaches another line to its midpoint and pulls it downward where she attaches it to another support point. This creates a "Y" shaped figure which makes up the first three radii of the web. She then spins more silk and creates a frame for the web. She continues to produce a non sticky silk and constructs additional radii. These radii are placed just far enough apart that the spider can span the space in between with her legs, allowing her to move freely on the web without getting stuck. In addition, she uses a non sticky strand to weave a spiral or circular pattern on the web.

*Spider Web Art cont on page 15*

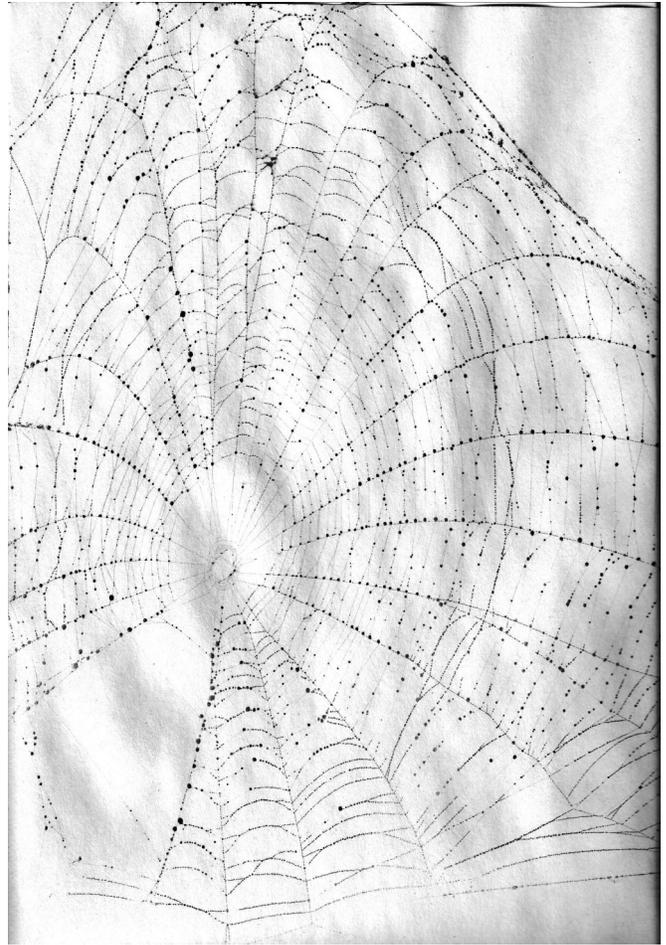
*Spider Web Art cont from pg 14*

Sticky strands are then woven between the spirals to complete the web. After the web is completed, the outer construction threads are removed. The web lasts only one day and after a night of hunting, the spider eats the web except for the support thread. After resting, she begins a new web and starts the process over again.

It is an interesting process to capture a spider web on paper and create some spider web art. All you need is some white paper, black spray paint and a spider web.

Hunt for a spider web on a calm day, preferably in the morning. Look for webs that are not inhabited. If you happen to find a web with a resident spider, just take a small stick and gently chase him off the web.

Spray the web with the paint. Carefully lift the web with the paper until the web breaks free and is stuck to the paper. If you've been careful, you will have a beautiful piece of web art that you can hang in your room.



## SPECIAL THANKS

The Association sends a special thanks to Bryan Norris of the Almanac for his generous contribution as a result of the Pickle Tasting Event he held on June 28<sup>th</sup>. It was a fun event, sampling a variety of pickled cucumbers, beans, beets and okra. Bryan donated a portion of the proceeds to the Association as a gesture of a businessman thanking the local community.

# Recycle!

## Local Recycling Information

### Durham Township Recycling Center

Location: Municipal Building, 218 Old Furnace Rd,  
Durham

1st Saturday of every month ( 2<sup>nd</sup> Saturday if 1<sup>st</sup> Saturday  
is on a holiday weekend)

Hours: 9:00AM – 12:00 noon

Accepting newspapers, magazines, junk mail, phone  
books, glass, tin, plastic, aluminum and cardboard.

Please note that this facility is available to all, not just  
Durham Township residents!

Contact Joe Kulick at the township building for more info.  
610-346-8911

### Springfield Township

Location: Township Building, 2320 Township Road

Paper Recycling Bin Available at Township Building A  
Recycling bin was recently placed here and is available to  
anyone. Cut down on trash and help the township earn  
extra money. You can drop off: Magazines, Shopping  
Catalogs, Phone Books, Newspapers, Office and School  
Papers, Mail.

Please do NOT include: Plastic, glass, metal, trash

Hours: Anytime ; Cardboard can be dropped off in the bin  
next to the paper retriever.

See website: [www.springfieldbucks.org](http://www.springfieldbucks.org)  
or call (610) 346-6700.

### Blinderman & Son

Location: 1320 Whitaker St, Hellertown. 610-838-9221

Hours:  
7:30AM – 4:00 PM, Monday – Friday  
7:30 AM – 11:30AM, Saturday

Accepting cardboard and most metals

### City of Bethlehem Theis/Cornfeld Recycling Center

Web site: [www.bethlehem-  
pa.gov/recycle/services/theis\\_cornfeld.htm](http://www.bethlehem-pa.gov/recycle/services/theis_cornfeld.htm)

Location: 635 Illick's Mill Rd, Bethlehem Phone: 610-  
865-7082 Hours: Weekdays: 10 AM to 5 PM, Saturday 9  
AM to 5 PM, Sunday 11AM to 4 PM

Accepting glass, cans, plastics, newspapers, all books,

magazines, catalogs, cardboard, mixed office paper,  
metals, textiles (clothing, shoes, etc) large appliances  
(certified freon-free). Call or go to the web site for specifics.

**Bonus!!** They provide FREE on site shredding services for  
businesses and private individuals. If you have 4 or more box-  
es, call 610-865-7082 to schedule an appointment

Hours of Shredding: Weekdays: 10 AM to 2:30 PM, Saturday:  
9 AM to 2 PM

### City of Bethlehem Compost Center

Location: 1480 Schoenersville Rd., Bethlehem

Non-Bethlehem residents are not allowed to drop off  
materials at the composting center but the mulch and  
compost is available for free to anyone if loading ser-  
vices are not needed. They actually produce much more  
than what they can distribute, so they encourage anyone  
to take as much as they would like! Loading services are  
provided for a fee of \$10/cubic yard in the spring and  
fall. Call 610-856-7082 for hours.

### CCWA Tote Bags now for sale!

No need to toss out plastic grocery bags from  
the market when you can re-use a 100% cotton  
canvas bag. The handy size is perfect for grocery  
shopping and trips to the farmer's market. The  
extra long handles work comfortably over the  
shoulder for carrying books and paperwork, knit-  
ting and sewing projects, a change of clothes for  
the gym, for sports events and for whatever else  
needs toting!

\$12.00 each.

To order,  
call Sherry Brodhead  
at 610-346-8484.



## Schedules of Local Government Meetings

**Springfield Township:**  
[www.springfieldbucks.org](http://www.springfieldbucks.org)  
610-346-6700  
2320 Township Road

**Supervisors:** 2nd Tuesday @ 7:30 PM  
**Planning Commission:** 1st Wed. @ 7 PM  
**Supervisors/Planning Commission**  
Work Session: 3rd Thurs. @ 7 PM  
**Environmental Advisory Council:**  
2nd Thurs. @ 7:30 PM  
**Historic Commission:**  
3rd Tuesday @ 7:30 PM

**Durham Township:**  
[www.durhamtownship.org](http://www.durhamtownship.org)  
610-346-8911  
215 Old Furnace Road

**Supervisors:** 2nd Tuesday @ 7:30 PM  
**Planning Commission:**  
1st Tues. @ 7:30 PM  
**EAC:** 3rd Tuesday @ 7:30 PM

**Lower Saucon:**  
[www.lowersaucontownship.org](http://www.lowersaucontownship.org)  
610-865-3291  
3700 Old Philadelphia Pike

**Council:** 1st and 3rd Wed. @ 7 PM  
**Planning Commission:**  
2nd Mon. @ 7 PM  
**EAC:** 1st Tues. @ 7 PM

**Williams Township:**  
[www.williamstwp.org](http://www.williamstwp.org)  
610-258-6060  
655 Cider Press Road

**Supervisors:** 2nd Tues. @ 7 PM  
**Planning Commission:** 3rd Wed. @ 7 PM  
**Land Preservation Board:**  
3rd Mon @ 7 PM  
**Richland Township:**  
215-536-4066  
1328 California Road  
**Supervisors:** 2nd and 4th Mon. @ 7 PM

**Planning Commission:** 3rd Tues. @ 7 PM  
**Preservation Board:** 2nd Tues. @ 7 PM  
**Rivers Conservation:** 3rd Tues. @ 3PM

### Green Tip # 5: Recycle Your Used tires!

Everyone has a few lying around, probably behind the shed or garage, lying in the weeds, collecting water – and breeding mosquitoes. It's not often that it's this easy to get rid of your used tires. Springfield Township's EAC is hosting a tire recycling event to safely recycle those used tires. All you need to do is bring those tires to the Springfield Township municipal building on Township Road (off 212 in Pleasant Valley) on Saturday September 27 from 9:00 am to 2:00 pm. Springfield will charge \$2 (cash only) per tire to cover the cost of the transportation (\$3 if on a rim, \$3.50 for motorcycle tires, \$7 for 18-wheeler tires). Tires need to be relatively clean, leave the dirt, water and mosquitoes at home. This event is limited to Springfield Township residents. For additional information contact Rich Schilling at the Springfield Township Office (610-346-6700).



*Look for a "Green Tip" every  
Newsletter!*

## Please Join Us... Cooks Creek Watershed Association - Membership Form

All of us who reside in the area enjoy the beauty of Cooks Creek.

Those of us who are fortunate enough to live here are dependent upon this watershed not only for the beauty of the creek but our wells, the wetlands, the wildflowers and all of the beautiful landscapes in our townships.

It's up to all of us to protect this treasure. The Cooks Creek Watershed Association asks that you become a member and help in the task of protecting this special resource.

**Name:** \_\_\_\_\_

**Other household members:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

Please send me CCWA e-news and  alerts  
CCWA does not share your e-mail address with any other

\_\_\_\_\_ **E-mail:** \_\_\_\_\_

**Interests: (circle)**

Newsletter      Website      Roadside Cleanup      Event Planning  
Membership      Fundraising      Stream Studies      Wherever I'm Needed

**Individual Membership Fee:** @      \$ 15.00 per year

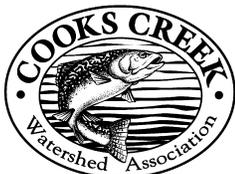
\_\_\_\_\_

**Family Membership Fee:** @      \$ 25.00 per year

\_\_\_\_\_

**Donation:** \_\_\_\_\_

**Total:** \_\_\_\_\_



Cooks Creek Watershed Association  
P.O. Box 45  
Springtown, PA 18081  
www.cooks creekpa.org

NON-PROFIT ORG.  
STANDARD MAIL  
DURHAM, PA 18039  
PERMIT NO. 6

If you hold precious the beauty that surrounds us in the Cooks Creek Watershed area and would like to be actively involved in its preservation, then consider joining our association as a member. Reach out to your community! We would love to hear from you!

Please drop us a line at [info@cooks creekpa.org](mailto:info@cooks creekpa.org)

CCWA is a 501 (c) (3) non-profit organization.