

Cooks Current

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

Volume 3, Issue 2

Newsletter of the Cooks Creek Watershed Association

Spring 2006

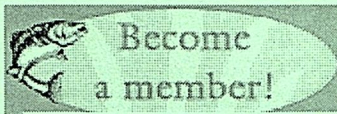
2006 CCWA Events

- *Regular Board Meetings:*
Springtown Fire House
7:30 PM

Jun 29, Jul 27, Aug 24, Sept 28, Oct 26, Nov 16, Dec 21

All are welcome! We appreciate your involvement!

- *June 17 Mini Monster Mayhem*
- *October 14 Fall Fellowship Dinner*
- *November 4 Fall Cleanup*



See Page 12 for Details !!

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

Board Members:

President:

W. Scott Douglas

Vice President:

Hans Reimann

Treasurer:

Margaret McDonald

Membership Chair:

Sherry Brodhead

Recording Secretary:

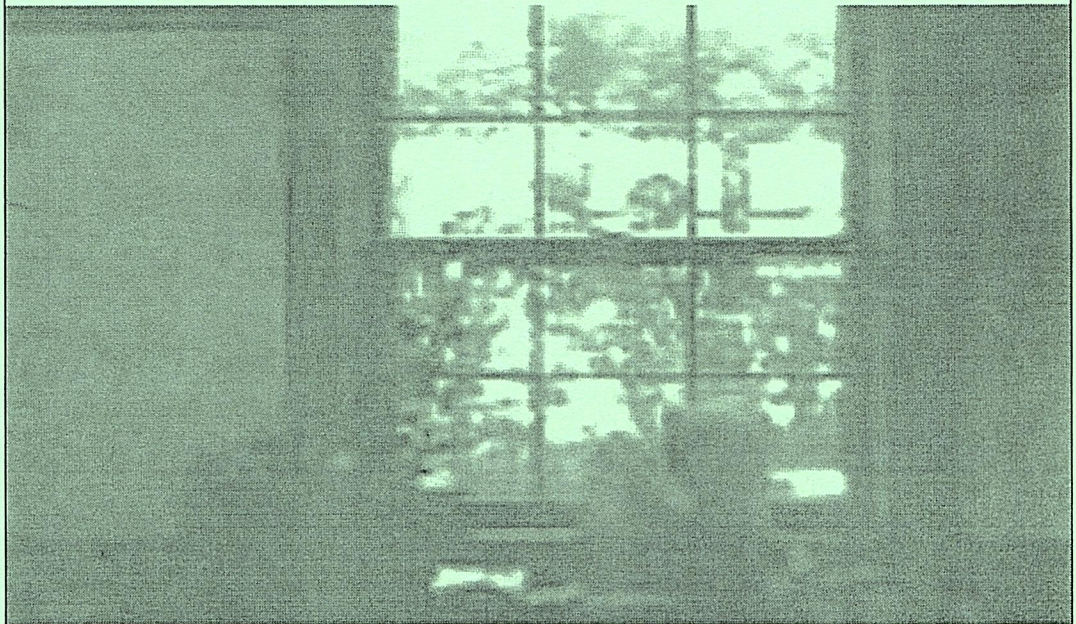
Lois Oleksa

Stephen Smith, MD

Layout & Graphic Design:

Karyn Oleksa, Lois Oleksa

From Across the Board...



As I look out my office window at the newly emerged foliage and clear blue skies, my thoughts turn to getting out there and enjoying our beautiful Pennsylvania countryside. No matter if you like the serenity of a streamside hike or the raucous fun of a white-water kayak ride, there's something for every one. While you are dreaming up your summer schedule, keep stewardship in mind. There's a lot going on that will affect everyone's backyard.

First, cudos to those who've participated and/or led our winter events. The CCWA co-sponsored (with

Heritage Conservancy) the installation of a fence at the Fuller Preserve on Slifer Valley Rd to keep the deer

We're on the web!
www.cooks creekpa.org

away from the American Chestnut grove (details inside). Our annual cleanup was a runaway success again, with three PennDOT dump trucks filled with trash from over 25 miles of roadway. I hope you enjoy the clean roadsides as much as I do. To help Palisades Middle School celebrate Earth Day, I made a presentation on watersheds and water quality to the sixth

graders. Other speakers talked about invasive plants and garbage/recycling. I hope that this turns into an annual event, with more than the hour allotted this year. Our children learn what's important by seeing how much time we adults devote to things. Finally, in collaboration with Gallows Run Watershed Association, we hosted another Regional Environmental Advisory Council (EAC). Participants from Tinicum, Bridgeton, Nockamixon, Durham, Springfield and Lower Saucon learned about groundwater resources from NJ hydrologist Matt Mulhall and about Tinicum's

(Continued on page 3)

Barbara Hahn: A Founding Member



From the Midwinter
1981-1982 Newslet-
ter:

“Ribbon Cutting:
Jerry Knight of Pleas-
ant Valley, for whom
the Cooks Creek Wa-
tershed Association
nature trail is named,
cuts the ribbon to the
path as Barbara Hahn,
president of the asso-
ciation, encourages
her.”

Her lifelong understanding and appreciation for the natural world led Barbara to become a founding member, and later the co-president of the Cooks Creek Watershed Association. As a citizen, and as a member of the CCWA, Barbara frequently attended and contributed to meetings of the Springfield Township Board of Supervisors, always as a constructive and informed participant. It is in part due to her diligence and persistence that neither a tank farm nor a pipeline break-out facility is now located in the township. Barbara and her friend Renée Miller organized and oversaw a drop off recycling project at the Springtown Fire Company that she worked hard to transform into a town-ship wide curbside pick-up service.

After Walter’s retirement, the couple moved to a waterfront home near Cambridge, Maryland, where Barbara continued to enjoy observing wildlife. She devoted much of her time to her talent as an artist in watercolors and pastels. Barbara was also an amateur writer, a ceramicist, a boater and the selfless giver of care to several members of her family, including Walter who died a few years after moving to Maryland.

One could always depend upon Barbara Hahn to help identify a leaf, a bird, a birdsong, a woods animal, a wildflower, a weed, a mineral, or a natural area of special significance, because her curiosity and self-education, and her generosity with instruction, continued throughout her life. If Springfield Township remains a special and a particularly beautiful place to live, that is in no small way due to the fact that Barbara once lived here.

Barbara Hahn, a resident of Pleasant Valley from the 1960s to the 1990s, was fatally struck by an automobile in mid-April while riding a bicycle near her winter home in Hollywood, Florida. She never recovered from a coma, dying soon after the accident. All who knew Barbara while she lived here, and many who, perhaps unknowingly, benefited from her contributions to Springfield Township, will miss her.

Barbara grew up in Newton, Massachusetts, a suburb of Boston, and attended the University of Massachusetts, where she majored in Outdoor Education. After working

in a government agency in Washington, D.C., she met her husband, Walter Hahn, a Lafayette College graduate and engineer. Barbara and Walter moved to his several engineering and academic positions, eventually leading to Lehigh University and their home in Pleasant Valley. The Hahns had four sons, Peter, Michael, Mathew and Patrick, all of whom attended the local high school and went on to earn degrees from colleges in the area. Barbara was an active parent in the Palisades School District. In addition to her four sons Barbara leaves behind two granddaughters, Joy and Jillian and a grandson, Lucas.

From Across the Board

(Continued from page 1)

groundwater resource ordinance. Apparently we are pretty close to being able to use the data from the streamgauging stations we've been monitoring over the years to develop a defensible ordinance that will protect our Creek from aquifer drawdown.

Now, for the upcoming events. This summer we will have our sixth Mini-Monster Mayhem on Father's Day Saturday (see insert). If you haven't yet attended this, feel free to come, it's a lot of fun and even the adults learn a lot. If you've already attended, or are looking for something a bit more serious, come over to the Thompson parcel in Springtown (behind the big stone barn on Main Street) on the morning of June 10 instead and learn about benthic invertebrates and how to collect and identify them using dichotomous keys. Trout Unlimited will be doing a fly-tying class at the same time. In a more serious vein, Durham's Comprehensive plan is nearing completion and its chock full of references to the Watershed and protecting it. To view the draft go to: www.casval.com. Springfield is nearing completion of its revised zoning ordinance. You can view it on Springfield's website: www.springfieldbucks.org.

Our annual meeting was very small this year, no one joined the Board at Hans Reimann's house, but we conducted all our required business and elected new officers. Margaret McDonald and I agreed to remain in our current posts as Treasurer and President for another term. Lois Oleksa, our newsletter editor, agreed to become Secretary and Hans Reimann was elected Vice President. Thanks to Jim Orben for filling in as Secretary periodically over the year. While I am very happy that our current Board is willing to keep up the good fight, we'd sure like to see some new faces and ideas. If you would like to be part of this creative group, please drop us a line through the website (info@cooks creekpa.org).

Yours in Stewardship

W. Scott Douglas

Local Government Meetings

Springfield Township:

610-346-6700
www.springfieldbucks.org
 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

Durham Township:

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
 610-865-3291
 3700 Old Philadelphia Pike
 Council: 1st and 3rd Wed. @ 7 PM PM
 Planning Commission: 2nd Mon @ 7 PM
 EAC: 1st Tues @ 7 PM

Williams Township:

610-258-6060
www.williamstwp.org
 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

Year end financial reports

By: Margaret McDonald, Treasurer

Cooks Creek Watershed Association
 Statement of Financial Position
 March 31, 2006

Assets	<u>\$10,925</u>
Liabilities	None
Unrestricted net assets	<u>\$10,925</u>
Total liabilities and net assets	<u>\$10,925</u>

Cooks Creek Watershed Association
 Statement of Activity
 For Year Ended March 31, 2006

Total revenue and support	\$6,693
Total expenses	<u>\$2,895</u>
Total revenue and support over expenses	\$3,798
Unrestricted net assets Beginning of year	<u>\$7,127</u>
Unrestricted net assets End of year	<u>\$10,925</u>

Thank You

Thank you to our business sponsors that supported us in our annual clean up. They are:

Almanac
Carol Dorey Real Estate
Kurfiss Real Estate
 all of Springtown, PA.
 We appreciate your help.

Declaring A New Paradigm

By: Jim Orben

The rains will probably come back. The weather of the last few months seems upside down in many ways. December was cold with snow. January was warm. February was almost normal and March was dry. As April followed, the rhyme promised showers, but none came. Now it's May and little rain is forecast. What shall we do? Shall we be an ostrich or a little red hen? Should we ignore the situation or should we run about waving our arms yelling "drought"? There are many doing both. With our eyes wide open we need to put our arms to work. The rains will probably come back, but even if they do, there is much work that needs doing. The climate is changing at an alarming rate. In the last 150 years we have increased the carbon dioxide content of the air by over 36%, from 280 ppm to 381 ppm. Greenhouse Earth gets more efficient every day. The more fossil carbon we burn the hotter it gets. Finding new oil reserves, drilling new oil wells, pumping more oil, driving more cars more miles, heating and cooling more homes will not make the earth cooler. The earth and its environment did just fine before humans discovered that peat, coal and oil could be burned for heat and power. The earth has no memory of the past and no dreams for the future, it just is as it is, and as we make it. We humans are the ones who dream, and if we want our dreams, and not our nightmares, to come true, we must act. The politicians we elected to protect us have chosen to be both the ostrich and the hen. They proclaim the need to break our addiction to Mid-East Oil and offer the Arctic National Wildlife Refuge as the sacrifice to that need. Who protected the Gulf Coast from Katrina? Where is the national policy to reduce carbon dioxide in the air? The rest of the world agreed there was a problem and many countries are taking steps to remedy the situation. Why does the President not agree? What is his excuse? If the government of the United States will not act in the face of a true threat, then who will?

When the thirteen colonies got no respect from George III of England our founding fathers declared independence and started a new nation. The declaration

that is needed now is a bit less extreme. We do not need a new nation. We need a new paradigm. The declaration we need reads like this:

While the exact mechanisms of climate change are not fully understood, the scientific understanding is sufficiently clear to justify taking action. Within our community, steps must be taken to reduce the amount of carbon dioxide that we as a group and we as individuals produce. Since the burning of fossil carbon is the cause of increased carbon dioxide in the atmosphere, and because most of the energy we use is derived from sources that use fossil carbon for fuel, it follows that we must use less energy. The two largest users of energy under our individual control are our homes and our automobiles, and the largest user of energy under the control of our community is our government, including local, county, state and federal. The steps we can take to reduce our carbon footprint include:

- 1) In the spirit of Simplicity, drive our cars fewer miles in the pursuit of our daily lives.
- 2) In the spirit of Integrity, live in cooler and warmer indoor climates by exerting

less control over indoor spaces.

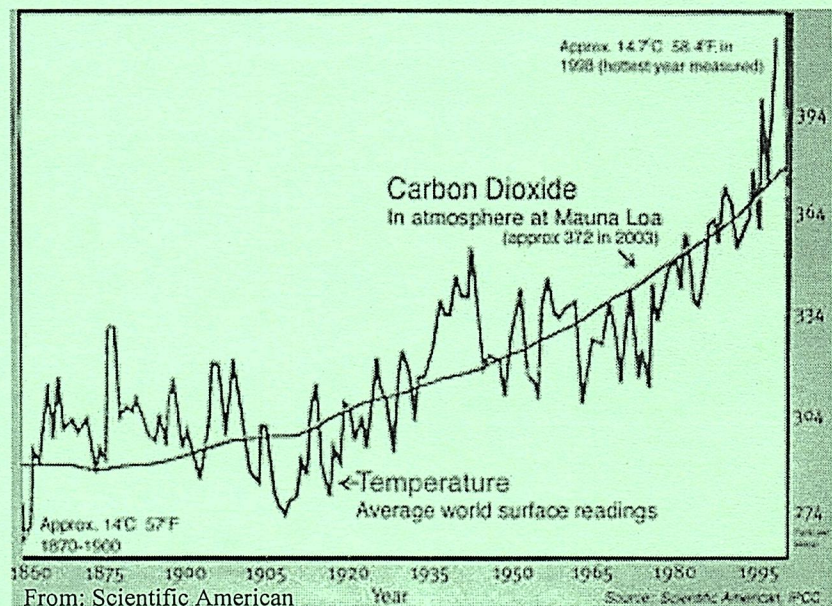
3) In the spirit of Equality, see sources of energy produced without burning fossil carbon.

4) In the spirit of Stewardship, use energy efficiently.

5) In the spirit of Peace, advocate for changes in public policy dealing with climate change.

By letting the true spirit of conservation guide our actions we are following in the footsteps of many committed Conservationists before us. It is our hope that their resolve, in solving the problems of their time, will become our resolve as we move to solve this problem of our time. The Cooks Creek Watershed Association commits itself to take action as a community and as individuals by working to relieve the causes of climate change.

Each of the five actions set forth in this Declaration of a new Paradigm can be fulfilled in many and diverse ways. It is up to each and every one of us to make the changes necessary to reduce the level of carbon dioxide in our air. Global warming is an inconvenient truth that must be dealt with by us all.



Children's Backyard: Violet Wars, Poppy Maidens, and Ladies-In-A-Bathtub or Men-In-Gondolas

By: Lois Oleksa

Violets, Bleeding Hearts, and Poppies were found in all the early American gardens. Children amused themselves with the leaves, roots, flowers, stems, and fruits of plants. Have you ever had violet wars, seen the lady in the bathtub, or made poppy ladies?

Violet Wars:

Violet bouquets are pretty but you can demolish violets in contests known as violet wars, fighting roosters, or fighting cocks. The game was originally played in England and then in early America. Two players each start with an equal number of violets. Each player took a violet in hand and hooked the head of his flower under the head of his opponent's violet. When the flowers were hooked and pulled, the stronger was the conqueror and the weaker head was pulled off. Winners got to keep the losers flower head. Whoever accumulated the most heads won the game.



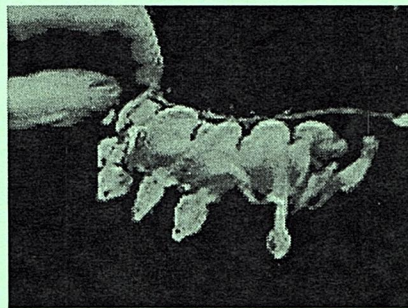
Preparing for battle...



Which head is stronger?

Bleeding Heart: Lady-In-A-Bathtub or Man-In-A-Gondola:

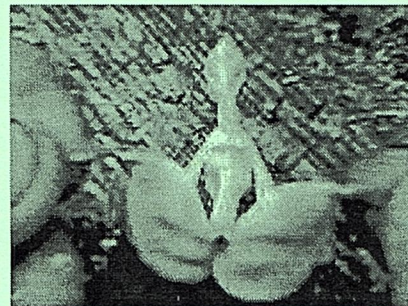
The shape of a bleeding heart appeals to the imagination of children. The hearts are charming to look at as they dangle on their branches. The tiniest parts can be pressed to make dainty bookmarks. Now, take a look at the hearts again. See the upside-down lady in a bathtub? See the man in a gondola? Take off a heart and gently pull the pink outer layer down on each side. See the hoop skirt of the little princess? Or, is she the lady in a bathtub? Or, the man in a gondola?



A row of hearts



A perfect heart



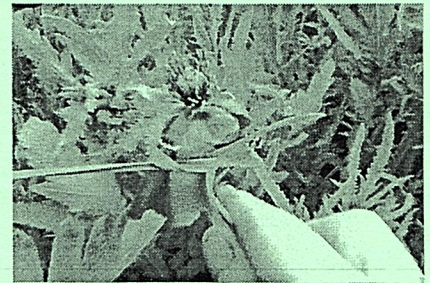
The little princess

Poppy Maidens:

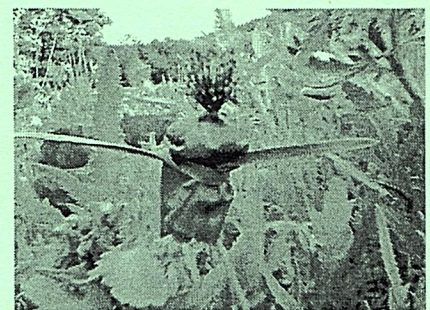
Sit down beside a shirley poppy bed and carefully turn down the silky petals of each poppy exposing the little green or black seedpods for heads. Tie a knot in a blade of grass and slip it over the head. Pull it tight and create a waist. Spend time carefully tying the poppies and watch the poppy ladies dancing in the breeze.



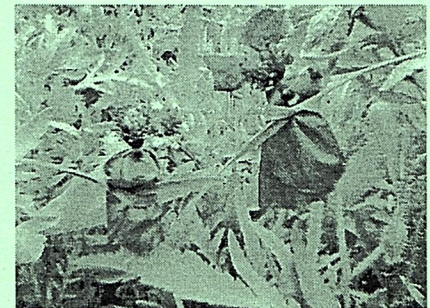
Turning down the petals



Tying the knot



A finished maiden



Blowin' in the wind

The American Chestnut

By: Carl Martin



L to R Tony Vega, Jim Keenan, Hans' truck "Little green hornet", Steve Stoner, Jeff Finegan. Photo by Hans Reimann.

Since April 2002, Heritage Conservancy, The American Chestnut Foundation and representatives from several Bucks County Boy Scout troops have been planting and maintaining a nursery in an attempt to bring back the American chestnut tree. The Fuller Preserve, a 64-acre conservancy-owned property in the Cocks Creek Watershed, was chosen as the site where this important effort would be undertaken.

In the first year of planting, more than thirty people including twenty Boy Scouts from Troop 52, six scoutmasters, and representatives from the American Chestnut Foundation, the Cocks Creek Watershed, and Heritage Conservancy participated in this effort to begin propagating a disease resistant American chestnut tree. The scouts assisted with laying out the planting plan, planting the seeds, and finally protecting the trees with special tubes provided by the Department of Conservation and Natural Resource's Bureau of Forestry. The Scouts also assisted with managing those invasive plant species that were taking over the field in which the planting took place. The

Scouts learned how to create wildlife habitat by piling up the material that was cut and making brush piles that will be used by a host of local animals.

After planting thirty-six pure American chestnut seeds and fourteen F1 Hybrids, that are partially blight resistant, the scouts were given a short history of the American chestnut tree's importance in American forests by Tom Pugel of the PA chapter of the American Chestnut Foundation and Carl Martin of Heritage Conservancy.

In more current years the scouts continued the maintenance and husbandry of these precious trees as demonstrated by such activities as installation of deer fencing and expansion of the nursery to near double its original size. Now, with over 100 seedlings growing in the nursery and a recently constructed fence, the next step, once the trees are mature enough, is to test resistance and propagate those successful individuals.

The nursery has several purposes. In a partnership with the PA chapter of the American Chestnut Foundation, HC is working to provide breeding stock for the ACF program that will eventually see a blight resistant strain of the species. This is accomplished through a labor intensive and time-consuming process known as backcross breeding. This project also offers HC an opportunity to work with community groups and foster working relationships / partnerships with them on a high profile endeavor in the Cocks Creek Lasting Landscape area.

The plight of the American chestnut began in 1904 when a strange infection called the chestnut blight was discovered on the bark of a chestnut tree at the Bronx Zoological Gardens, NY. Due to the high susceptibility of the American chestnut, this blight traveled rapidly across the tree's range, sometimes as fast as 50 miles a year. By 1915, over half of Pennsylvania's prized American chestnut trees were gone. The American Chestnut Foundation, in order to breed blight resistant American chestnut trees, started the promising procedure of backcross breeding in the 1980s.

The importance of the American Chestnut as a species lies in the history of the species in the region. In the early 1900's a fungus found on the Chinese Chestnut and native to Asia was inadvertently introduced into the native population of chestnut with catastrophic results. By 1940 the blight had spread throughout the entire natural range of the American Chestnut erasing the species from the forest and impacting entire industries related to forest products. More specific information can be found in the supporting material. http://www.patacf.org/bc_pgm.htm

(Continued on page 9)

Spring has Sprung and the Warblers are Back!

By: W. Scott Douglas

Yes, its spring and at wooded locations throughout Pennsylvania, birdwatchers can be seen scanning the treetops for.....what? Budding leaves? No, little yellow birds! For birdwatchers, there is probably no greater thrill than to catch a glimpse of yellow in the treetops. Most of the 38 species of Warblers that either nest in or migrate through Pennsylvania are patterned in yellow and black on at least part of their bodies. In what could be considered an adult version of Pokémon, some bird-watchers are obsessed with trying to "catch them all". But Warblers are picky where they live, selecting the most pristine, quiet and secluded

spots to nest. The PA Dept. of Conservation and Natural Resources is actually using one species of Warbler as a "canary in a coalmine" to quickly rank the quality of headwater streams throughout the Commonwealth. One of the few Warblers without any yellow markings, the dull brown and reclusive Louisiana Waterthrush looks like a diminutive dark brown Wood Thrush. It builds its nests along wooded streambanks, but only those that have a clean, healthy, aquatic ecosystem. PADCNr naturalists survey headwaters and note the presence or absence of Louisiana Waterthrush by listening for its call. The wonderfully preserved and varied habitat that we

have in the Cooks Creek Watershed provides excellent Warbler hunting ground. I have yet to see a Louisiana Waterthrush, but would love to know if and where they might nest in our Watershed. Perhaps a Waterthrush Watch could help us monitor stream conditions. Please drop a line to info@cooks creekpa.org and let me know where and when you see the Louisiana Waterthrush or any other Warbler. The following is a list of nesting and migratory Warblers, and those I have personally recorded in the Watershed.

P.S. Scott just informed us that he and James spotted a Louisiana Waterthrush in his backyard.



Louisiana Waterthrush

Warblers

Nesting

- American Redstart
- Black and White
- Black-throated Blue
- Black-throated Green
- Blackburnian Warbler
- Blackpoll Warbler
- Blue-winged Warbler
- Brewster's Warbler
- Canada Warbler
- Cerulean Warbler
- Chestnut-sided Warbler
- Common Yellowthroat
- Golden-winged Warbler
- Hooded Warbler
- Kentucky Warbler
- Lawrence's Warbler
- Louisiana Waterthrush
- Magnolia Warbler
- Nashville Warbler
- Northern Parula
- Northern Waterthrush
- Ovenbird
- Pine Warbler
- Prairie Warbler
- Prothonotary Warbler
- Swainson's Warbler
- Worm-eating Warbler
- Yellow Warbler
- Yellow-breasted Chat
- Yellow-rumped Warbler
- Yellow-throated Warbler

Migrants

- Cape May Warbler
- Connecticut Warbler
- Orange-crowned
- Palm Warbler
- Tennessee Warbler
- Wilson's Warbler

CCWA Confirmed

- American Redstart
- Black and White Warbler
- Blue Winged Warbler
- Black Throated Green Warbler
- Black Throated Blue Warbler
- Common Yellowthroat
- Louisiana Waterthrush
- Northern Parula
- Ovenbird
- Pine Warbler
- Palm Warbler
- Worm Eating Warbler
- Yellow Warbler



Warbler Calls

- Black throated green: zeet zeet zeet zoo zeet
- Black throated blue: zree zree zree ZREE
- Blue winged warbler: bzzz bzzz (insect like, sounding like an in and out sigh)
- Worm Eating Warbler: sounds like a rattlesnake
- Common yellowthroat: witchety witchety witchety witch
- Ovenbird: TEA-CHER, TEA-CHER, TEA-CHER (very loud)
- Louisiana Waterthrush: 3 slurred whistles followed by a jumble of notes, dropping in pitch.

Backyard Wildlife Certification

By: Sherry Brodhead

Do you know that you can have your backyard certified as a Backyard Wildlife Habitat by the National Wildlife Federation?

This is an interesting program for homeowners to become active in the maintenance and preservation of wildlife and native plants in our area. As our surrounding rural and wild lands continue to be developed and replaced with suburban, manicured lawns, the need to provide and protect areas for wildlife increases. With our wilderness shrinking and backyard acreage increasing, homeowners play an increasingly vital role in our ecological balance. Also, as wilderness areas become more isolated from each other, like islands in a sea of manicured lawns, genetic diversity becomes an issue. Inbreeding occurs when populations of a species are cut off from one another thus weakening the species.

Homeowners must take on the responsibility to be educated about beneficial native plants, harmful invasive plants and the damage that chemical pesticides and fertilizers cause to our struggling ecological balance.

Ask yourself if you really need so much lawn space. By cutting down on lawn acreage and increasing native plantings, not only will you use less gasoline to maintain the lawn, but you will be supporting pollinating birds and insects that will improve the biodiversity of diminishing gene pools and contributing to the stability of our wildlife.

Habitats that are established now will develop into precious sanctuaries

in a few years and will teach stewardship to the next generation.

The following is an excerpt from the National Wildlife Federation's web page for the steps needed to become certified for a Backyard Wildlife Habitat.

What is required to certify my habitat?

Food - Grow native vegetation — like locally native shrubs, trees and other plants that produce acorns, berries and other seeds — to supply food for wildlife. For birds, feeders can supplement natural food sources.

Water - Provide a constant, reliable source of water with a birdbath, pond or shallow dish. Most wildlife need water for drinking and bathing.

Cover - Create cover for wildlife with densely branched shrubs, hollow logs, rock piles, brush piles, stone walls, evergreens, meadow grasses and deep water. This will protect wildlife against the elements and predators.

Places to Raise Young - Offer wildlife safe places for courtship and nurturing young. Mature trees can provide den sites for squirrels and nesting places for birds. Host plants for caterpillars will ensure the presence of butterflies in your habitat. Salamanders, frogs and toads will thrive in a pond or water garden.

Sustainable Gardening Practices - The way you garden or manage your landscape impacts wildlife in your yard and your entire

neighborhood. Planting natives, reducing chemicals and building healthy soil are just some of the things you can do to help wildlife and conserve natural resources.

For more information and to download an application for certification, go to the National Wildlife Federation web-site for Backyard Habitats at www.nwf.org/backyardwildlifehabitat



Photo by Bill Brodhead

The American Chestnut

(Continued from page 6)

Many businesses, agencies and organizations supported Heritage Conservancy and the Boy Scouts with this project including the Pennsylvania Chapter of the American Chestnut Foundation, Pennsylvania Department of Conservation and Natural Resource's Bureau of Forestry, Haycock Lumber and the Cooks Creek Watershed Association.

Heritage Conservancy is a non-profit membership organization committed to preserving our natural and historic heri-

tage in the greater Delaware Valley region. For more information about the conservancy and its conservation projects in the Cooks Creek Watershed and though out the greater Delaware region visit its web site at www.heritageconservancy.org. To learn more about the American chestnut tree check www.paacf.org.

Photo from Heritage Conservancy:

Blight Canker Surrounded by Fruiting Bodies (Spores) of the Fungus



Fairy Shrimp by Lois Oleksa

Do you like eating shrimp? Not all shrimp make a tasty morsel. The fairy shrimp are very small, 10 mm long. They inhabit very small pools—vernal pools. Vernal pools are seasonal pools; they are small, shallow wetlands that do not have a permanent inlet or outlet of water flow. They fill in the fall or spring when rain or snow melt drains into shallow depressions. Seasonal pools hold water for only part of the year and experience a drying phase usually in late summer. (see Vernal Pools, p 11)

Fairy shrimp are pale colored (normally gray-white) and transparent. They have long, narrow bodies with eleven pairs of paddle-like legs. Females have a brood pouch located behind their legs. In it are eggs called cysts.

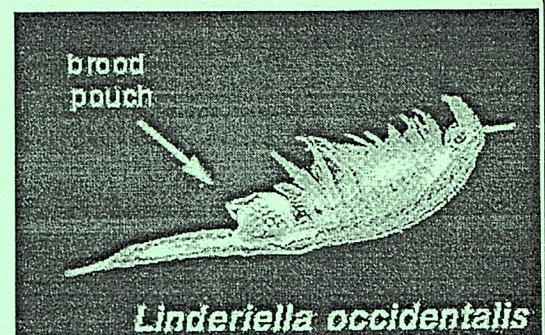
Fairy shrimp cysts hatch as soon as water collects in the vernal pools. They grow quickly and can reach maturity in as few as eighteen days depending on the conditions in the vernal pool. Once the cysts are fully formed, they are released by

the female and they sink to the bottom of the vernal pool. Females can produce many cysts during one season. The cysts remain dormant until next year's rain, but they can last for decades.

Fairy shrimp are important in the eco-system. Sucking in water, they ingest bacteria, algae, protozoa, rotifers, and detritus. They themselves are a food source, being eaten by tadpoles, toads, salamanders, killdeer, ducks and even tiny eaters such as backswimmers, aquatic beetles, and aquatic insect larvae. Loss of vernal pool habitats through development and new agriculture is the loss of a unique habitat.

Producing cysts in a vernal pool is a unique phenomenon. Cysts are fully developed embryos enclosed in a hard spongy shell. Eggs on the other hand are a single cell enclosed in a hard or leathery shell. Development of the embryo does not take place until after the egg is laid. It takes weeks

for the embryo to develop and hatch. Birds, reptiles, and fish produce eggs. Cysts, on the other hand, since they are fully developed embryos, can hatch out into an embryo as soon as there is water in the vernal pool. What an advantage when you live in a quickly disappearing habitat like a drying vernal pool!



From: www.google.com (images)

A Pleasant Afternoon

By: Jim Orben



The other day it was warm and sunny and I heard the wind calling from the tops of the trees. The wind blows over the mountain and swirls about over my head and in the tops of the tall ones. It is the wind that gives the trees voice much like our breath makes speaking possible for us. The call of the trees was irresistible and drew me into the forest. I climbed the hillside slowly crunching the leaf litter and snapping twigs as I went. In this part of the forest there are few old trees. Almost all of the oaks are gone. There are other creatures in this forest beside me and the trees. The squirrels and the birds lift up their voices in turn to join the rustle of the wind. As I walked up the hill through the woodland I neared a tree that has been used by my

neighbor as a deer-stand. About twenty feet off the ground is the object of my quest and I climbed the ladderlike pegs into this tree and sat. I looked about me and saw the forest from a new perspective. I saw the world from the eyes of the trees, the squirrels and the birds. From this perch I could look down on the surface of the land, the forest floor, as a plane and see the brook and the fallen trees that criss-cross the landscape. As I sat there looking around quietly, I could feel the spirits of the forest accepting me as a new member of their

living community. The other animals in the forest, having stopped and watched and listened as I passed, returned to their living activities. The longer I sat there in the trees, within the forest, the more I felt a part of the woods. As I watched and waited a redtail hawk swept through my sight. It glided through the branches and perched in a neighboring tree about forty feet above me. I watched this bird as it folded its wings and settled to its perch. It was a good thing that I had some time to spend because my short call to the woods had become an afternoon adventure. The hawk was sitting quietly too, facing away from me, apparently surveying the forest floor for food. After about ten minutes it screeed, raised its wings, deposited some fecal waste

on the floor of the forest and flew off to another perch out of my sight. All this time the wind was at its business. The business of giving voice to the trees. Making them swish and rustle. It was a gentle breeze, not a pruning one to break off older or weaker wood, but a soothing one to give this grove of tulip trees an easy sway that I could just feel as I sat on my perch above the ground. I heard a woodpecker off in the distance drilling into a branch for grubs and calling from time to time in its woodpecker way. The background hum of humans was low but present; cars on a nearby road; airplanes in the sky above. I was brought back from these distant sounds by the quick sharp crash of a squirrel in the dried leaves and turned to look. It seemed to be searching for one of the nuts it had hidden in the autumn that was not to be found. I turned forward once more and in my view was a column of deer that had used the ruckus created by the squirrel to sneak into my zone of observation. The leader had stopped to await the clearing of the squirrel's noise. She was just moving again when I saw her and the five that followed. They came in single file, moving across the slope and slightly down-grade toward the small stream that flowed silently by. They stopped, each in turn, for a short drink and moved off, down the hillside toward a better place to find food. This simple act reminded me of my own thirst. I sat a short time more so as to not disturb the spirits, climbed down to the ground and walked as quietly as I could out of the woods.

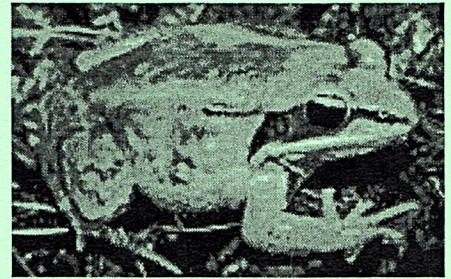
The View from Laughing Springs

By: Hans O. Reimann Jr.

Spring greetings to everyone! As it is with my wife and me, perhaps the spring season is your favorite time of year to be a part of our watershed area. The gradual unfolding of the many layers of plant and animal life begin to weave a living tapestry of sight and sounds. From those quiet late March mornings of bluebird migration through shrub forest layer and meadow; spring blue and mourning cloak butterflies and male robins jockeying for territory, to the late May mornings of wood thrushes serenading the dawn light and orioles greeting the morning sun with their tree top symphony of sound and sight. From the stark shades of brown bard and dormant buds to the pastoral

splendor of the greening forest landscape, spring brings the freshness of nature's renewal. To help keep and enhance the native biodiversity in our watershed area, the National Wildlife Federation has taught me to be a Habitat Steward with the following five steps as my guiding creed to pass on to all of you. 1) Grow native plants found in your area including trees, shrubs, and other plants that offer food such as pollen, nectar, nuts, cones, berries and other seeds. 2) Provide water for wild life with a bird bath, small pond or shallow dish; or care for a natural spring or stream on or near your habitat. 3) Create protective cover for wild life by growing a meadow, densely branched shrubs or (when appro-

priate) evergreens. Place hollow logs in your back yard. 4) Build bird houses, attach them to metal poles and monitor their use. Grow host plants for butterfly and moth caterpillars to eat and provide dense native plants to create safe areas for nesting wild life. 5) Be careful, watch what you plant in your garden. Exotic species not native to your region can become invasive and be harmful to both people and wildlife.



Wood frog from www.google.com

Vernal Pools

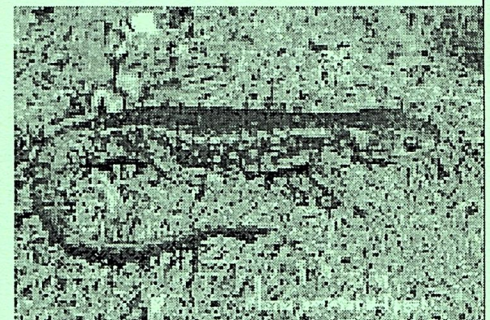


Spotted Salamanders from www.google.com (images)

Another important spring habitat feature that some of us enjoy on our properties, are vernal pools. These are seasonal pools, unique wetland habitats where some of our state's most recognizable reptiles and amphibians can be found. Vernal or seasonal pools are small, shallow wetlands that do not have a permanent inlet or outlet of water flow. They fill in the fall or spring when rain or snow melt drains into shallow depressions. Seasonal pools hold water for only part of the year and

experience a drying phase usually in late summer. Because of this drying phase for part of the year, these wetland habitats are often overlooked when human activity encroaches on them with forestry, home building, and landscaping. Storm water run off from roads can adversely affect water quality. Eighty-five percent of seasonal pool amphibians return each year to breed in their natal pond. This fidelity by individual amphibians to a particular pool is an important consideration for species conservation. Animals that require seasonal pool habitats to complete some phase of their life cycle are called seasonal pool obligates. Three common mole salamanders of Pennsylvania: the marble, the spotted, and the Jefferson are all seasonal pool obligate species. The wood frog, eastern spadefoot, and a crustacean, the springtime fairy shrimp are also seasonal pool obligates. Other animals that use seasonal pools, but also use permanent wetland habitats are red spotted newts, northern spring peepers, American toads and wood turtles. A seasonal pool registry is being compiled in our area by a part-

nership of the Nature Conservancy, the Western Pennsylvania Conservancy, and the Pennsylvania Natural Heritage Program. For further information, contact: <http://www.paconserve.org/rc/sp> or Western PA Conservancy c/o Seasonal Pool Project Coordinator 209 4th Ave., Pittsburgh, PA 15222 and Phone Number 412-586-2307 or e-mail spcoordinator@paconserve.org.



Jefferson Salamander
[Www.new.towson.edu](http://www.new.towson.edu)

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: _____ 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 _____

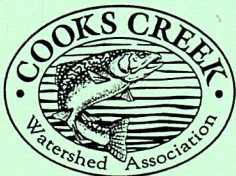
Family Membership Fee: @ \$ 25.00 per year _____

Donation: _____

Total: _____

Please detach and mail to Cooks Creek Watershed Association (CCWA),
P.O. Box 45, Springtown, PA 18081. **THANK YOU!**
Checks can be made payable to Cooks Creek Watershed Association.
CCWA is a 501 (c) (3) non-profit organization.

Be sure to list info@cooks creekpa.org as a favorite in your e-mail account if you wish to receive last minute updates. CCWA does not share your e-mail address with any other organization.



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