

Cooks Current

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

Volume 4, Issue 2

Newsletter of the Cooks Creek Watershed

Spring 2007

2007 CCWA Events

Regular Board Meetings:
Springtown Fire House
7:30 PM

All are welcome!

Jun 28,

Jul 26, Aug 23, Sept 27,

Oct 25, Nov 15, Dec 20

Mini Monster Mayhem:

Jun 16

Fall Fellowship Dinner:

Oct 13

Fall Clean-up: Nov 3



See Back Page for Details!

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

Membership Chair:

Sherry Brodhead

Recording Secretary:

Lois Oleksa

Jim Orben

Margaret McDonald

Siobhan Royack

Stephen Smith, MD

Pat Raynock

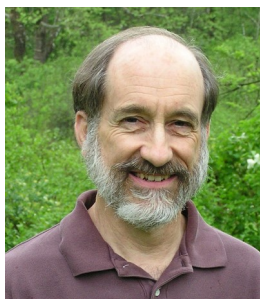
Ellie Scheitrum

From Across the Board...

Despite getting off to a slow start, spring is finally in full swing. I heard my first Oven-bird the other day as I drove home with the windows down, and am looking forward to searching out new warblers for my Watershed list over the next few weeks. We've had yet another successful roadside cleanup, clearing the way for birders and bikers to get out and enjoy walking the byways of Springfield and Durham. Many thanks to all who participated and to Board member **Sherry Brodhead** for all she did to organize it (again). Our annual Earth Day meeting was hosted by VP **Hans Reimann** at his place on Spring Hill Rd, and we officially kicked off our year with a new (?) slate of officers. Hans and **Lois Oleksa** were reinstated as VP and Secretary,



and we officially swore in **Charlie Klein** as Treasurer. Si-



obhan Royack will now be in charge of the website.

The Board recognized the



many years of service provided by outgoing Treasurer **Margaret McDonald** with a beautiful plaque that thanked her for "counting our beans".



We have some cool upcoming events for everyone including a fly fishing seminar (co-hosted with Heritage Conservancy and Trout Unlimited) to be held on June 2 at the Thompson property in Springtown, and an Open Space tour of protected properties (co hosted with the Heritage Conservancy) in the Watershed on June 8, and our 7th Annual Mini-Monster Mayhem (see flyer insert) on June 16. See the website for details on these. I hope to see you all

there.

As for the rest of the summer, I thought I'd give you a list of Creek-Friendly projects for your lawn and garden:

-Promote infiltration by cutting the lawn on a higher setting

-Plant some native flowers, shrubs or trees

-Remove invasive plants

-Build a rain garden

-Set up a rain barrel on your downspout for watering flowers

-Build a bird, bee or bat box

-Build a compost pile (and use it!)

-Plant some native ground-cover to reduce your mowed area

-Have your septic tank pumped

I wish you all have a safe and happy summer.

Yours in conservation,

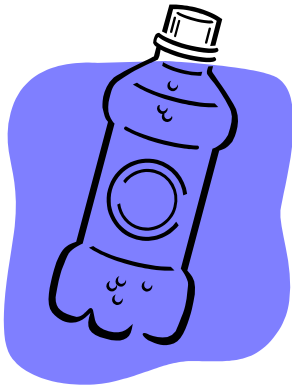
W. Scott Douglas

President



Bottled Water Addiction

By: Sherry Brodhead



BOTTLED WATER ISN'T NECESSARILY CLEANER:

According to the *San Francisco Chronicle* and lawsuits from the Environmental Law Foundation, 40% of bottled water is really just repackaged tap water. Maybe that's a good thing, considering federal standards for tap water are actually higher than those for bottled water.

BOTTLED WATER AND OIL:

Supplying Americans with plastic water bottles for one year consumes more than 47 million gallons of oil, according to the Container Recycling Institute. That's enough to take 100,000 cars off the road and 1 billion pounds of carbon dioxide out of the atmosphere. Add in the additional amount of oil it takes to ship the bottles thousands of miles from extraction source to recipient, and your drink of H₂O could be categorized with the "Hummers" of the world.

BOTTLED WATER AND BIODEGRADABILITY:

Buddha's bones turned to dust a long time ago. But if he had been a bottled water drinker, that plastic would still be laying around. It takes two minutes to drink a bottle of water, but it takes thousands of years for that piece of plastic garbage to go away.

SOLUTION:

Buy a water filter and a non-plastic container of your preferred size. Fill it up in the morning before you go to work or school. Do a quick online search, and you can also find affordable

portable water filters for when you are traveling. You'll save yourself and the environment a lot of expense.

This article is courtesy of *ORGANIC BYTES*, a publication of:

The Organic Consumers Association

www.organicconsumers.org/organicbytes.htm

I just discovered this organization and I encourage you to check it out. It is a bi-weekly email publication "campaigning for health, justice and sustainability". The Organic Bytes section has a wealth of helpful daily living suggestions. On the home page, there is a box where you can type in your state of residence and it will give you a listing of Pennsylvania news, events, organizations, campaigns and a

listing of green and organic businesses!

I came across the above article and felt compelled to share it with you after experiencing the situation with our road-sides from our Green-Up Day. It is hard to beat the convenience of easy to grab bottled water and I am just as addicted as the next! As a matter of fact, CCWA contributed 3 cases of bottled water (purchased by me!!) for the event for our volunteers. For next year's event I would like to encourage another approach where our volunteers bring their own container for water. I encourage your suggestions on how best to implement this.



A Heap of Water Bottle Trash.

Ruminations on Cooks Creek Watershed Geology

By: Bobb Carson

I was asked to write something about the geology of the Cooks Creek watershed. About anything really, I was told, whatever you think might be interesting.....

With that direction, I could reflect on the kinds of minerals and rocks that are exposed in, or lie beneath the surface of, the watershed. Or I could hold forth on the local landforms and what they tell us about processes that have shaped this little piece of the world. We might consider the environment, the climate, or the tectonic setting that existed when the rocks were formed, and, if we know their age, we could reconstruct a history of changing conditions and evolution. Or we could discuss how different physical and chemical properties of the rocks affect the land we now use and the natural limitations on those uses.

We might get to some of those topics (the more interesting ones) in future newsletters, but if they're to be understandable, we'd better begin with the basics – the rocks themselves. Descriptions of rock types and their occurrences may not be inherently fascinating (except, perhaps, for those of us whose homes are filled with agate lampshades and crystals mounted on small pedestals), but they are the basic vocabulary upon which larger geologic stories of the Cooks Creek Watershed can be constructed. So.....

The 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 (Fig. 1). 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.....

Located adjacent to the gneisses is the Early Cambrian (570-550 MYBP) Hardyston quartzite. Originally deposited as a shallow marine deposit (perhaps a beach or tidal flat sand?), the Hardyston is now a metamorphosed sandstone that has undergone nearly complete silica recrystallization. It is extremely hard and massive, white to more commonly grey, and consists of fine-to-medium sand grains and pebbles, the latter (1-4 cm in diameter) are well-rounded and may be white or iron-stained to a reddish color.

Middle and Late Cambrian (540-505 MYBP) sedimentary rocks, restricted to a NE/SW-trending band that encompasses Springtown and Durham (Fig. 1), are limestones (comprised primarily of the mineral calcite (calcium carbonate, CaCO_3)) and dolomites (dominated by the mineral dolomite (calcium magnesium carbonate, $\text{CaMg}(\text{CO}_3)_2$)). Unlike sandstones that result from the physical deposition of sand grains, these sedimentary deposits were precipitated biochemically from shallow tropical seawater, by microbial or algal activity. We know this because one can recognize stromatolites (domal or bulbous layers) and oolites (small, rounded accretionary grains about the size of BBs) in these rocks that are identical to modern deposits observed in Australian and Middle Eastern seas. The carbonate deposits in the watershed belong to the Leithsville and Allentown Formations. (A formation is a recognizable, mappable rock unit that is named for the location where it was first mapped or where it is most definitively exposed. The Leithsville Formation is more dolomitic than the Allentown Formation and often

includes thin beds of shale (clay) or sand that are absent from the Allentown Formation.) These carbonates are highly soluble relative to the surrounding quartzite and gneiss and so, due to comparatively rapid weathering and dissolution over millions of years, form the lower valley of Cooks Creek.

There is no geologic record in the watershed of the next 250 million years. (More on that some other time.....)

The southeastern half of the watershed is dominated by red and reddish brown clastic deposits (shales, siltstones, fine-to-coarse-grained sandstones, and gravel-sized conglomerates), with some interbedded gray and black shale, silt, and sand beds (Fig. 1). These sedimentary rocks are all Late Triassic (250-206 MYBP) in age and belong mostly to the Passaic (formerly the Brunswick) Formation, although small occurrences of the underlying (older) Lockatong Formation may also be present. Both formations consist of lake sediments. The dark-colored Lockatong deposits contain fish fossils and indicate relatively deep water conditions. The red and reddish brown Passaic sediments, in contrast, exhibit reptile (dinosaur) footprints, plant root casts, and desiccation cracks, all of which strongly suggest shallow water and periodic exposure as lake levels fluctuated.

On the western, eastern, and northern margins of the Triassic beds, significant accumulations of gravel-, cobble-, and boulder-sized deposits occur (Fig. 1). These sedimentary deposits are referred to as fanglomerates, which is geologic jargon for conglomeratic (i.e. large clasts in a finer-grained matrix) alluvial fan deposits. Alluvial fans form when streams with a steep gradient debouch onto a low-gradient terrain, lose their power to transport large particles, and form a fan-like deposit. The fanglomerates in the watershed contain cobbles of either Hardyston quartzite or Leithsville dolomite, which reveal the older rock units drained

(Continued on page 4)

Watershed Geology

(Continued from page 3)

by the streams that fed the alluvial fans. The occurrence of these fanglomerates also indicates significant topographic relief on the margins of the Triassic lakes.

Finally, the youngest rocks in the watershed are also the only true igneous rocks, or rocks that formed from cooling of molten rock material (magma). They consist of diabase, a dark greenish-black, iron- and calcium-rich rock composed largely of plagioclase feldspar and pyroxene, and are found along the southeastern, southern, and southwestern mar-

gins of the watershed (Fig. 1). They were injected into the Triassic deposits as indicated by local metamorphism - thermal aureoles, or "baked contacts" - in the sedimentary beds adjacent to the diabase intrusions. Hence, they must be at least somewhat younger than the pre-existing rocks into which they were injected.

Well, so much for rocks as vocabulary. In some future newsletter(s), depending on audience interest, the editor's desperation, and the strength of your correspondent, we may explore the various implications of this geologic primer.

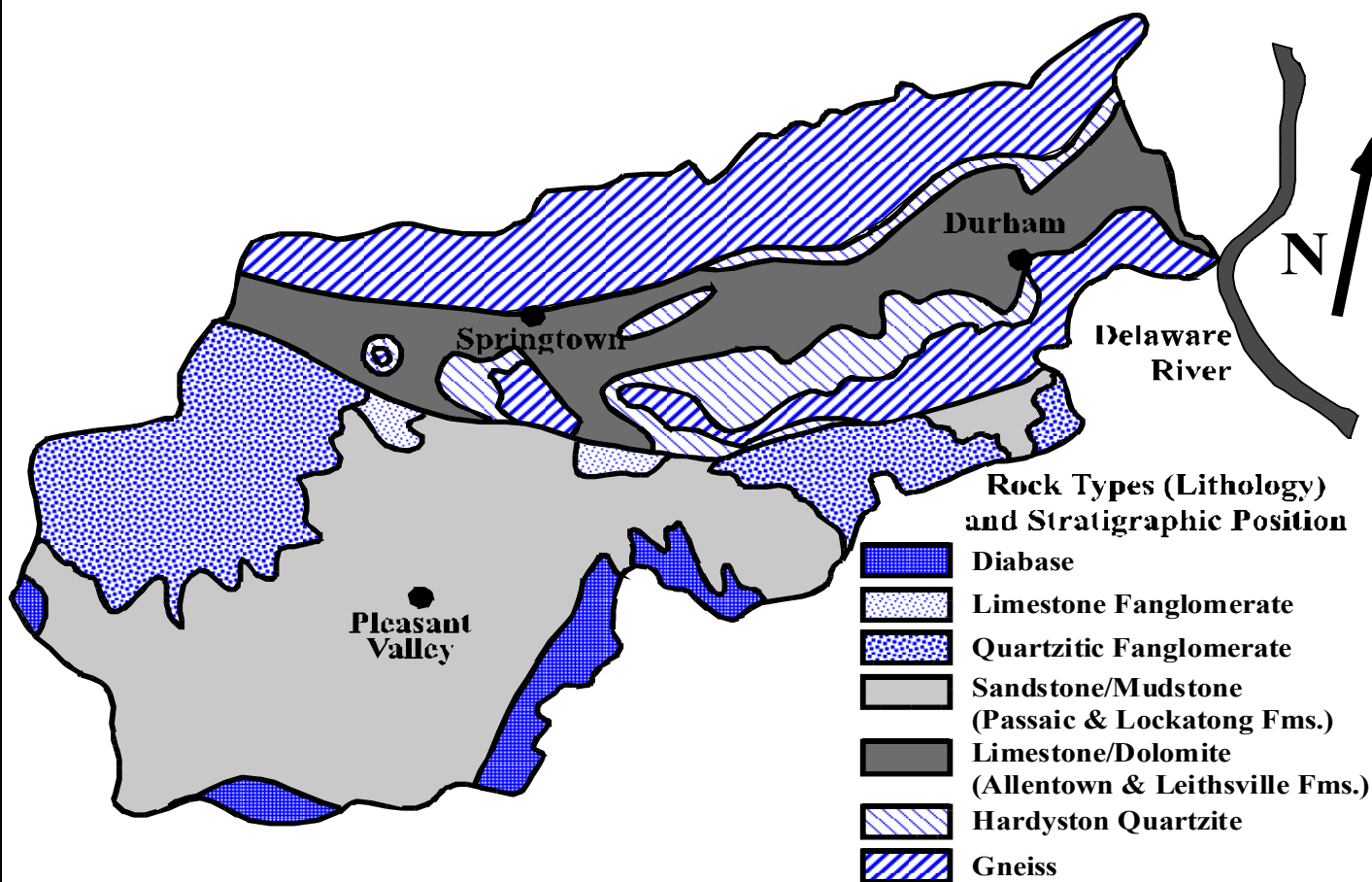


Figure 1. Rock types in the Cooks Creek Watershed. After: Bedrock Geology of Pennsylvania, Pennsylvania Topographic and Geologic Survey, Department of Conservation and Natural Resources, 2001

Creature Feature: Caddisflies

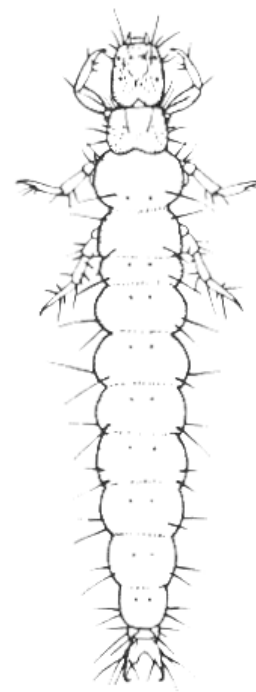
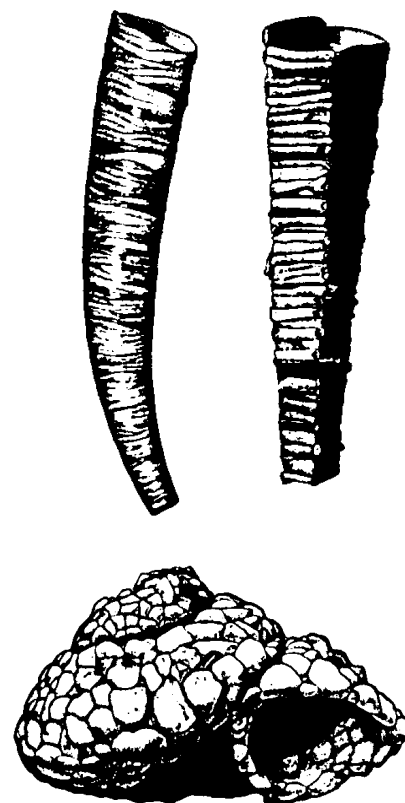
By: W. Scott Douglas

The word “caddis” is actually Latin for “tent”. It comes from the fact that caddisfly adults fold their wings together in an inverted V over their backs. The scientific name for caddisflies is Trichoptera or “hairy wings”. The adults do look like small hairy moths. Despite these two apt names, the most distinctive feature of this incredibly diverse group of organisms is the unique case that most larvae build and live in. Caddisfly larvae build cases out of sand, pebbles, sticks, leaves, diatoms, algae, almost any material available, and the case is distinct to that species. Some are just a few pebbles stuck together, others are intricately constructed works of art. One species that lives in Cooks Creek makes a case that looks exactly like a tiny snail shell. A few years ago I met a group of people at a conference that actually give caddisfly larvae precious stones to construct cases with. When the larvae outgrow them, the cases are gathered and turned into jewelry (www.wildscape.com).

Caddisflies are one of the most diverse groups of insects in our streams. Some filter tiny particles out of the water, others scavenge for detritus, still others are voracious predators. They can be as small as a few millimeters or as large as a few centimeters and have colonized just about every freshwater aquatic environment on Earth. Some are highly specialized and live in seep and spring areas that most people wouldn't even consider streams, while others are present almost everywhere there's freshwater. As opposed to mayflies and stoneflies, caddisflies have a complete metamorphosis, meaning that they have a resting, or pupal, stage. When a larva is ready to pupate, it usually seals up its case so that it will be safe while it is most vulnerable. The adults are short lived, existing only to mate and lay eggs; many do not even eat.

Given their diversity, it's not surprising that there is quite a lot of variability in caddisfly sensitivity to pollution. While

none of these creatures can be considered pollution tolerant, some do thrive under high nutrient loading conditions where suspended organic material and algae are abundant. Still, along with mayflies and stoneflies, caddisflies are the third leg in the triumvirate of most sensitive benthic invertebrates. If you want to find caddisflies, you can look on the undersides of rocks in the stream, or sort through the sticks in quiet pools or ponds. Sometimes I just sit still, watch the bottom and wait for their slow plodding movements as they drag their house around looking for food.



How Many Americans Does it Take to Change a Light bulb?

By: Jim Orben

How many Americans does it take to change a light bulb? This is the first line of an old joke that usually makes one group of people out to be somewhat foolish. I am an American that is telling it this time, and I'm telling it on myself and I'm telling it on you in the hopes to prove that we are not at all that foolish. How many Americans does it take to change a light bulb is really not a joke, it is a question of survival. It is a question of survival whose answer only begins with light bulbs and reaches into our entire way of life. The energy we use has made everything we do easier, from the homes we live in, to the clothes we wear and to the food we

eat. Light bulbs are an important part of our modern lifestyle. In the same way light bulbs have lighted the way for home, industry, and recreation, they are now poised to light the way for energy conservation and the reduction of the CO2 emissions that cause global warming. It is time to put aside the Edison light bulb of the nineteenth century and adopt the compact fluorescent light bulb of the twenty-first. The beauty of the compact fluorescent light bulb is two fold. First, it uses one quarter of the power to make the same light and second, it lasts ten times longer. The compact fluorescent light bulb offers the chance to take a first step

down the path of determining our own future. If we can change light bulbs we can change how we create the energy we use. We can change how we travel about the world. We can change how we feed and clothe ourselves. If we can change light bulbs we can change the course of history. How many Americans does it take to change a light bulb? My answer is: "About three hundred million, one American changing one light bulb at a time." What's your answer?



2007 Roadside Clean-up: A Success!



For the 4th year in a row, CCWA has hosted a watershed-wide roadside cleanup in Durham, Springfield and Lower Saucon townships. This year's event was attended by over 50 people, representing

8 different organizations (Boy Scout Troop 27, Springfield Historic Commission, Springfield Township EAC, Durham Township EAC, Springfield Planning Commission, Concerned Democrats of Springfield Township, Springfield Township Historic Society and the Springtown Fire Company). We cleaned up 20 miles of roadway including: Rt 212 from the Delaware River to California Rd, Bodder Rd, Drifting Drive, Lehnenburg Rd, Durham Rd, Slifer Valley Rd, Rattlesnake Rd, Gallows Hill Rd, and parts of Richlandtown Pike, California Rd, Rt 412 and Hickory

Lane. Many thanks to our corporate sponsors: Bechdolt's Orchards, Comprehensive Development Services, Giant Food Stores, Springtown Fire Company and PennDOT. Also thanks to Jeff and Jill Powell for their donation of "trash tongs" and to the Springfield Historic Commission for their baked goodies. A special thanks goes out to the Springfield Township Road Crew and the Springfield Township Police Department for their logistic support.

Don't Burn It, Recycle It Instead!

Springfield Township has started a paper recycling program. Bundle up your unwanted newspapers, junk mail, magazines, printer rejects, school flyers and old homework papers and bring them to the Springfield Township municipal building on Township Rd. You can even bring shredded documents; just put the material in paper bags first. The green and yellow "Paper Retriever" dumpster is on the left side of the driveway, you can't miss it. Many folks still do, but please don't burn your papers and other "burnables". CCWA recently learned that there is actually an ordinance against burning trash in Bucks County due to nonconformance with Clean Air Act standards (same reason we have to get an emissions test for our cars).



Cooks Creek Watershed Association Statement of Financial Position

March 31, 2007

Assets	<u>\$19,579</u>
Liabilities	None
Unrestricted net assets	14,115
Temporarily restricted net assets	<u>5,464</u>
Total liabilities and net assets	<u>\$19,579</u>

Cooks Creek Watershed Association Statement of Activity

For Year Ended March 31, 2007

UNRESTRICTED NET ASSETS

Total revenue and support	\$5,166
Net assets released from restrictions	<u>1,536</u>
	6,702
Total expenses	<u>3,512</u>
Increase in unrestricted assets	3,190

TEMPORARILY RESTRICTED

NET ASSETS

Contributions	7,000
Net assets released from restrictions	<u>(1,536)</u>
Increase in temporarily restricted	
net assets	5,464
INCREASE IN NET ASSETS	<u>\$8,654</u>

Cooks Creek Watershed Association Statement of Changes in Net Assets

For Year Ended March 31, 2007

Temporarily

	<u>Unrestricted</u>	<u>Restricted</u>	<u>Total</u>
Balance March 31, 2006	\$10,925	None	\$10,925
Increase in net assets	<u>3,190</u>	<u>\$5,464</u>	<u>8,654</u>
Balance March 31, 2007	<u>\$14,115</u>	<u>\$5,464</u>	<u>\$19,579</u>

Highlighting this Quarter's INVASIVE PLANTS: Ornamental Grasses

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

The second half of our 2006-2007 winter was very real, not only to us humans, but also to our neighbors in the plant and animal world. Native plants storing energy from ample moisture, lay dormant about ten days longer on average than the last few years. And remarkably, Wood Thrushes, Phoebes and Orioles reappeared at least ten days later than the five year average. This later migration pattern seemed to assure a plentiful insect food supply because the insects birds need, had host plants, open water and warm ground to help them go through their life cycles. I have introduced the preceding bio-diary, because invasive plant growth was also slowed down due to harsher late winter conditions. Many early, ephemeral and other perennial natives, including tree and shrub seedlings, ferns, grasses and sedges were able to compete for light, water and nutrients on a more even footing. At least for the first thirty days or so, native plants actually gained ground on some invasive plants, but then the invasive attribute of sheer excess bio-mass growth allowed the bad plants to regain their competitive advantage. But what a beautiful window the early spring was to see. In areas I have cleared of invasive plants here at Laughing Springs, the natives continue to put on a theatre of growth unparallel compared to years past. Among the natives that are thriving this spring are the grasses and sedges. Here at Laughing Springs lives a rabbit, in the woods, who is thriving on native grasses such as *Latiflorae*, a beautiful woodland sedge grass. However, a grass the rabbit won't eat is the annual invasive Japanese Stilt grass (*Microstegium vimineum*). Native woodland alternatives to stiltgrass include creeping phlox, foamflower, and golden star (PA rare).

Other invasive grasses in our area and native alternatives:

Invasive grass - Smooth Brome (*Bromus inermis*) vs Native alternative - Little Bluestem (*Schizachyrium scoparium*) ... with thin graceful, colorful stalks and silvery, arched plumes in autumn, one to three foot plants are common if grown in full sun to light shade. Deep, fine tex-

ured roots make this species a good erosion control plant with drought tolerance once established. Trimming plants back in spring to just above ground will help new growth.

Invasive Grass - Pampas grass (*Cortaderia selloana*, *C. jubata*) vs Native Alternative - Sugarcane Plumegrass (*Saccharum* or *Erianthus giganteum*) Able to grow in meadows, open woods and roadsides, this grass is happy in moist, loamy or sandy soils in full sun or light shade, reaching at least eight feet in height and five feet wide. It is ideal as a hedge, in mixed borders, or as a screen with drought and water logging resistance. As a large grass, this plant will turn from russet to burgundy in autumn.

Invasive Grass - Weeping lovegrass (*Eragrostis curvula*) vs Native Grass Alternative - Prairie Dropseed (*Sporobolus heterolepis*) This grass is a warm season plant that greens up in early summer as a bunchgrass with clumps of narrow, bright green foliage and one-three foot plumes of fragrant flowers. Ornamentally used for its vase-shaped inflorescences and its yellow to orange autumn color. With deep roots suitable for erosion control,

it prefers rich moist neutral or acidic soil under sun or light shade.

Invasive Grass - Tall fescue (*Festuca arundinacea*) vs Native Grass Alternative - Purpletop (*Tridens flavus*) An early warm season clumping species with broad bright green blades that form a skirt one foot or less above the ground. It has tall, naked stems with open plumes of purple flowers from three-five feet tall. Another deep-rooted grass durable enough for sandy soil in full sun or light shade. Best conditions for growth are moist rich loam.

Invasive Grass - Japanese Silver Grass (*Miscanthus sinensis*) vs Native Grass Alternative - Indiangrass (*Sorghastrum nutans*) a beautiful bunchgrass with ascending tufted foliage and silky golden plumes to six feet tall. Its mature clumps bear many stems and reach out up to three feet. Can be used as a screen, deciduous hedge or accent. It prefers loamy, sandy soils in full sun or light shade. Drought tolerant with red to russet autumn color.

Invasive Grass - Reed Canary Grass (*Phalaris arundinacea*) vs Native Grass Alternative - Switch Grass (*Panicum virgatum*) a clump forming perennial grass growing three to eight feet tall and four feet wide with airy plumes of small seeds.

(Continued on page 9)



Ornamental Grasses

(Continued from page 8)

Spring foliage may be red tinged with russet to red autumn color. Full sun is best, in average to rich moist soil. A great specimen in the garden, switchgrass is widely adaptable to drought/wet conditions. See Previous issue (Winter 2007: Grass Farming for Local Energy) for information concerning switchgrass as an alternative Bio-Fuel.

Local Recycling Options

Durham Township Recycling Center

Location: Municipal Building, 218 Old Furnace Rd, Durham

1st Saturday of every month (2nd Saturday if 1st 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 for your use!

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 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

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 boxes, 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 services 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.

Local Government Meetings

Springfield Township:

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

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

Planning Commission: 2nd Mon @ 7 PM

EAC: 1st Tues @ 7 PM

Williams Township:

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

Children's Backyard: Nature Printing

By: Lois Oleksa

Hammered Print on T-shirt

Create a nature print on a T-shirt without using any paint or ink. Leaves have naturally occurring pigments, such as green chlorophyll, in them. The pigments are released when a young, juicy leaf is hammered on natural fiber or fabric.

Materials:

Fresh young leaves
Natural fiber fabric (white T-shirt) pre-washed and ironed
Hammer with a flat head
Newspapers
Waxed paper
Transparent tape
Salt or washing soda
Water
Iron

Place a section of newspaper topped with a sheet of waxed paper on a hard, flat surface. A piece of wood large enough for your design works well. Insert the newspaper/ waxed paper wood inside the T-Shirt, under the front of the shirt.

Spread the T-shirt flat on the surface and arrange the leaves you will print on the front of the shirt. Secure the edges of each leaf to the fabric with tape. Then cover the leaves with another sheet of waxed paper.

Hammer the leaves for several minutes until prints appear. Replace the waxed paper cover if it rips. Some leaves print better than others and coloration will vary. Very fragile leaves disintegrate quickly- these need gentler taps with the hammer. You may want to experiment on a scrap piece of fabric, and then choose the leaves that work best.

To set the colors in the T-shirt, soak the fabric in a solution of $\frac{1}{2}$ cup salt to 2 gallons warm water for 10 minutes or in a solution of 2 tablespoons washing soda dissolved in 2 gallons warm water for 10 minutes. Rinse well and dry outdoors or in a dryer. Iron T-Shirt smooth.



In nature printing, learn as much as possible about nature itself. Begin by examining an individual plant – is it small and delicate or strong and firm? Feel the texture – is it smooth and glossy, soft and downy, pebbled or ribbed? Using a field guide such as those by The Audubon Society, Roger Tory Peterson, and Lawrence Newcomb, you can determine the botanical names for plant structures. Are the leaves toothed or lobed? Are they opposite, alternate, or whorled on the stem? Do the veins protrude? Notice the veins that extend through each leaf. There are three common patterns- parallel, pinnate and palmate.

Nature printing shows the beauty of nature's patterns. Take time to carefully look and learn about the plants you nature print. Even the common dandelion, scientifically known as *Taraxacum officinale* is interesting. The divided sometimes pubescent leaves have many shallow to deep-cut lobes that provide interesting shapes and textures for nature printing.

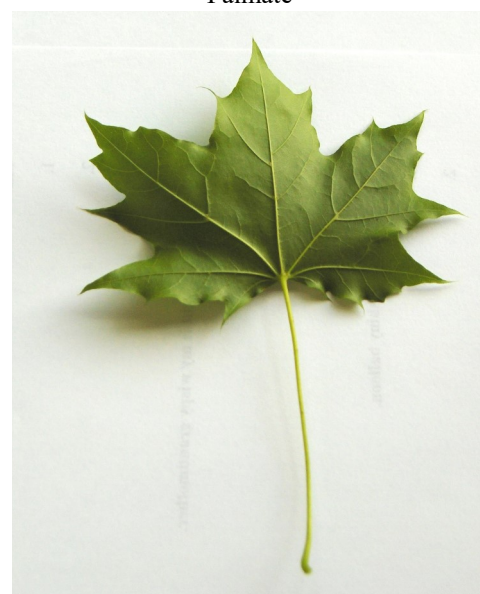
Parallel



Pinnate



Palmate



A Short Note on Nature Printing

By: David Oleksa

Sometimes we think of the people who lived back in the 16th Century as being primitive and not very concerned about the niceties of life. However, an account of a writer, Alexis Pedemontanus in Milan, Italy back in 1557, makes us reconsider. He gives detailed instruction on how to gather the soot given off by burning linseed oil, making ink, and dying leaves. Transferring the dyed leaf to a piece of paper created artwork that Alexis said were “gallant things to adorne your Chamber.”

The history of plant printing goes back even further with one of the people utilizing the manner none other than Leonardo da Vinci. He used the procedure not only on an art form but also as a tool of science. His manuscript Codex Atlanticus includes his method of

plant printing as well as a printed impression of a sage leaf.

Here in our own general area, Daniel Francis Pastorius, one of the founders of Germantown used the practice of plant printing back in 1684, the first time it was used in the American colonies.

Joseph Brientnall, a founder of the Botanical Garden of Philadelphia used John Bartrum's garden as a source for plants which he used for printing. His nature prints were advertised for sale in Benjamin Franklin's Poor Richard's Almanac.

For the next 100 years botanists and printers attempted to find ways to make multiple prints so the scientific community could have accurate illustrations for

text books etc. Nature printing stood the test of time and until the advent of photography in the mid 1800s, it was the method most often used to transfer images to the written page.

Nature printing was almost forgotten, until 1976 when the Nature Printing Society was formed. During the last two decades, a revival of the ancient art form has occurred, allowing the modern practice to again “make gallant things to adorne your Chamber” (or T-shirt).

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: _____

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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: _____

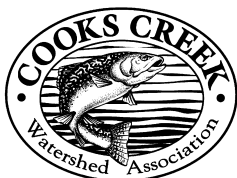
Please detach and mail to Cooks Creek Watershed Association , (CCWA)

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

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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!

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