

# Cooks Current

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

Volume 10, Issue 1

Newsletter of the Cooks Creek Watershed

Winter 2013

## 2013 Events

### Regular Board Meetings:

#### Springtown Fire House- 7:30PM

Feb.28, Mar.28, Apr.27, May 23,  
June 27, July 25, Aug. 22, Sept. 26,  
Oct. 24, Nov. 21, Dec. 19.

All are welcome! We appreciate  
your involvement!

### Special Events:

Apr. 6, Spring Clean-Up  
Apr. 27, Annual Meeting  
June 15, Mini Monster Mayhem  
July 13, Invasive Plant Workshop  
Oct. 5, Fall Dinner  
Nov.9, Fall Clean-Up



See back 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:**

Jim Orben

#### **Communications Director: Recording Secretary/Editor:**

Lois Oleksa

#### **Additional Members:**

Siobhan Royack

Stephen Smith, MD

Pat Raynock

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

Ellie Scheitrum

## From Across the Board...

The old year is out and the new year about to ring in as I pen these thoughts. Although the dead of winter may not seem like the best time to be thinking about playing in the water, the Board is hard at work thinking up our activities for next spring, summer and fall.

You can expect more of the same, from our popular Mini-Monster Mayhem, to our new Invasive Plant workshop. In addition, we will continue to monitor the creek, work with area youth, and represent your interests on local Boards and Commissions. The schedule is always on the first page of the newsletter (just to the left of these lines).

While I am always thankful for all the hard work our Board does, the number of faithful supporters has not grown in recent years. Several folks have moved on and yet we continue to do more with less (sound famil-



*Storm Damage from Hurricane Sandy on October 29, 2012.*

*Photo by: Pat Raynock*

iar?). Perhaps you are looking for a hobby that won't tax your wallet? Consider joining the CCWA Board! We would love to have a couple of fresh faces, with new ideas and energy to continue our mission.

Best time to catch us is at our monthly meeting at the Springtown Firehouse on the fourth Thursday at 7:30pm. No need to let us know, just show up and smile! In addition to our usual

business, you might catch an important update such as when Trout Unlimited comes to present the results of their Culvert Study, or when the PHS Eco-adventure team presents their slideshow of their trip to the Virgin Islands. You just never know. You don't need any special skills to join up, and we usually don't bite...

Right now we could use

*(Continued on page 3)*

## Creature Feature: Fisher Cat (*Martes pennanti*)

Number 24 in a series on the fauna of the Watershed By: W. Scott Douglas



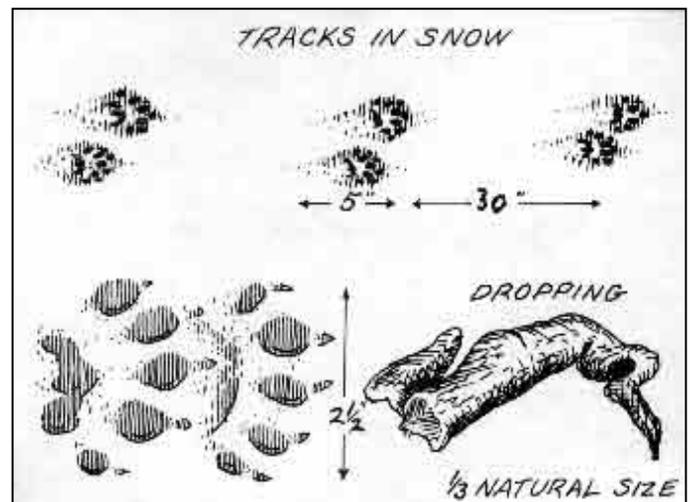
Recently, Hans Reimann reported seeing an animal in his woods in Springtown which he had never seen. He saw it for just a quick moment as it perched on a log, but it moved away quickly when it scented him. It was dark brown and fox-like, but moved with the liquid grace of an otter. I asked him if it was another mink, which we reported on a while back, but he said that it was much too large, and lighter colored. While Hans was hoping that it was in fact an otter, I think it more likely that he saw a Fisher. I have heard that Fishers are moving back into Pennsylvania from western Maryland and New York, but have not seen one since my childhood in Vermont. According to their website, the PA Game Commission has been experimenting with releases onto State gamelands in the hopes of re-establishing a viable population.

The Fisher (*Martes pennanti*), or Fisher cat, is one of those rare carnivores that many people have never even heard of, much less seen. The Fisher is not a cat at all, but a member of the weasel family (Mustelidae). Fishers are secretive and need 20-30 square miles of relatively undeveloped, hilly, mature forest to thrive. Despite its name, the Fisher is not a cat, but a wary, irritable and large member of the weasel family, second in size only to the wolverine. Typical size is 4-12 lbs, but males as large as 20 lbs

have been recorded. While this may not seem very large, they are 30-47" nose tip to tail, making it a pretty large animal to run into in the woods, especially when it's cranky. The Fisher is a beautiful animal, dark brown with black feet and tail, with variable patches of cream on its belly and neck. Its coat is luxurious, which made it a popular trapping target. This, and deforestation, lead to its extirpation from most of the mid Atlantic states in the early 20<sup>th</sup> century.

Fishers breed in late winter and early spring, shortly after giving birth to 2-3 cubs. Males do not assist in rearing the cubs; in fact they leave the female's territory after breeding. The den is usually in a tree cavity, but if one is not available, females will utilize rock ledges or brush piles. The cubs are heavily dependent on the female for 5-8 weeks, and are independent by six months; in time for their first winter. Sexual maturity is at 1-2 years.

Fishers are generalist feeders, taking small mammals, amphibians and birds, and larger males can even take down Bobcat, Lynx and small deer. They are famous for their ability to kill and eat porcupines, by first attacking their face and then flipping the unfortunate beast onto its back. Fishers are brazen enough to take domestic cats and even small dogs as prey, and are also well known as raiders of



(Continued on page 9)

## Green Tip #21: Resolve to Take Monthly Steps for a Greener Year!

1. **January:** put on a sweater and lower your thermostat
2. **February:** shovel rather than plow or blow snow
3. **March:** replace some of your incandescent bulbs with CFLs
4. **April:** participate in a roadside cleanup
5. **May:** set up a rain barrel
6. **June:** reuse your plastic bottles for ice or beverages
7. **July:** close your curtains before leaving for work to keep the house cool
8. **August:** make or turn a compost pile
9. **September:** buy produce from a local farmer's market
10. **October:** plant a tree
11. **November:** check weather stripping on windows and doors
12. **December:** use recyclable boxes/bags instead of giftwrap for gifts



### From Across the Board...

(Continued from page 1)

some folks to help with membership, to work on our website (a longstanding need), or maybe to lend a helping hand with stream monitoring studies or riparian restorations. If you don't think you want a long-term commitment, perhaps contributing an article on a subject of your interest for the newsletter (like Karl Schwartz did this time)?

Actually, we'd love to hear your ideas, thoughts, comments, and suggestions - whatever. Just drop me a line at [symbio@verizon.net](mailto:symbio@verizon.net).

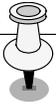
Yours in conservation,

W. Scott Douglas

President



*Hurricane Sandy was destructive to the trees in our Watershed. Photo by: Pat Raynock*

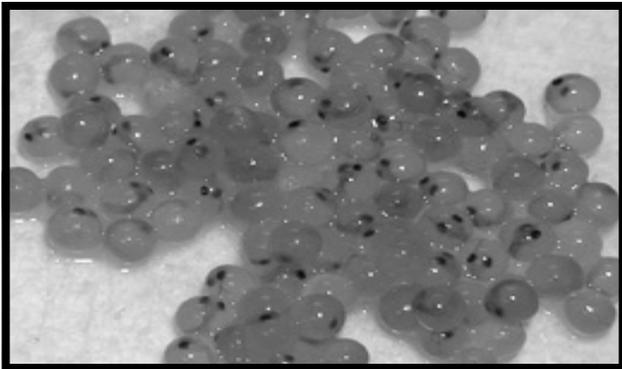


## *News from the WIP Program at Palms...*

### ***Currently our WIP students are working on the following:***

A genetics unit exploring dominant/recessive traits through situational activities such as a hypothetical stream scenario with local fish who experience a pollution spill and how the genes ultimately become altered within the population due to such an event; bottleneck vs. founder effects on populations, the impact of hatcheries on genetic diversity...DNA and owl pellets come next to explore how some species genetics lead to adaptations in behavior.

In integrated Language Arts class our class novel is The Talking Earth by Jean Craighead George. Additionally, local and global current events are addressed weekly. We are currently investigating a few new endeavors for the '13 – '14 school year through the "Trout in the Classroom" programming which allows students to raise native trout provided by the Fish and Game Commission and then releasing in the spring to local streams. Grant applications for this begin in February/March so we look forward to applying for such an opportunity. More information on this program can be found at <http://patroutintheclassroom.org>.



Trout Eggs—Pictures from *Trout in the Classroom*



Trout—Pictures from *Trout in the Classroom*

# Libraries are happening places...

By: *Ellie Scheitrum, Library Media Specialist*

*As the librarian at Palisades Middle School, I am very partial to the wonderful resources found in our local libraries and I thought our readers might enjoy some information on these great free resources.*

- Check out the **Library pages web pages** at Palms and the High School for some good information on websites, computers, book ideas, etc.
- **Power library** is a resource supported by the State of Pennsylvania and is available to all students in Palms and Palisades High School. Did you know that with a Bucks County Library card you may use it at home (go to Bucks County Library)? It includes an auto repair database, a trade and industry database, e-books on many subjects (they can be read on your computer), searchable databases of magazines and newspaper articles. A science database of information and the GreenFile with some great ecology resources that might especially appeal to our readers.
- Did you know the **Bucks County Library System** has some new offerings?

**To Access them go to:** [http://www.buckslib.org/resources\\_a-to\\_z/](http://www.buckslib.org/resources_a-to_z/)

—**A homework help** site that actually puts you in touch with a tutor certified in the proper subject to help you.

—**Ask Here Pa.** Let's you ask a research librarian questions.

<http://www.askherepa.org>

—**Zinio Patron-Borrower Overview for Magazines-** Zinio Digital Magazines for Libraries offers access to your favorite magazines offered through your library or instant browser streaming.

—**Universal Class-very cool, even languages** Learn something new today with Universal Class! Over 500 continuing education classes are available from computer technology, to do-it-yourself, to writing skills and test preparation. Use anywhere (with your library card and PIN) or at the library.

—**E-books:** Use **Overdrive** to download e-books to your computer or mobile device. Enjoy access to many popular titles. See the Help section of Overdrive for first time set-up requirements. The library has provided instructions for downloading e-books to the Nook, Kindle and Kindle Fire.

—**One Click Digital**

Use One Click Digital to download audio books to your computer or mobile device. Enjoy access to many popular titles.

—**Heritage Quest**

Census data, name catalogs, Revolutionary War records, and more. Use anywhere (with your library card and PIN) or in the library.

—**Ancestry.com** (need to do in public library) has more for genealogists.



*Make tracks to your library or get information*

*at your fingertips through the Internet!*



## Ruminations on Cooks Creek Watershed Geology

By: Bobb Carson

When we last considered the geologic history of the Cooks Creek Watershed (*Cooks Current*, Volume 8, Issue 1, Spring 2011), the Hardyston quartzite was being deposited during the Late PreCambrian (~570 – 540 millions of years before present; MYBP) and the Early Cambrian period (540 to 520 MYBP). These beach or near-shore deposits are exposed between Springtown and Durham (Fig. 1). During that time, the Watershed was located near the southern margin of a continent, Laurentia (that included modern-day North America, Greenland, and Mexico), positioned at mid-latitudes (in temperate climates) in the Southern Hemisphere. A widening ocean, the Iapetus Ocean, lay just offshore.

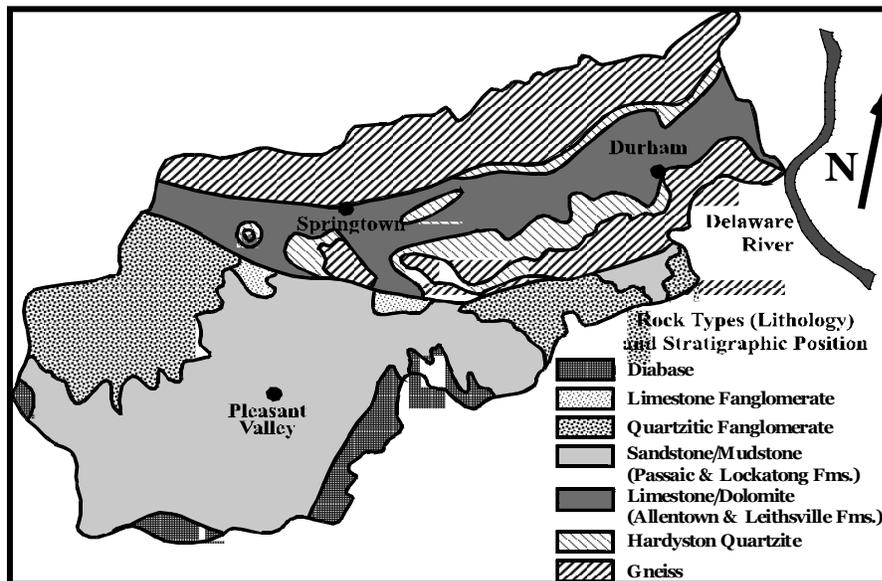


Figure 1. Rock types in the Cooks Creek Watershed. After: *Bedrock Geology of Pennsylvania, Pennsylvania Topographic and Geologic Survey, Department of Conservation and Natural Resources, 2001*

As time progressed into the Mid- to Late-Cambrian (520-485 MYBP) the continent slowly moved northward into equatorial (tropical) waters. At the same time, world's climate was warming, and the large ice sheets that had covered the polar landmasses in the Late Pre-Cambrian receded. So, sea level rose substantially, flooding low-lying areas of the continents. As a result, the inter-tidal environments indicated by the Hardyston quartzite deepened as the shoreline moved further inland, so that deposition subsequently took place in sub-tidal, shallow marine waters.

Because coarse sand and gravel was retained near the shoreline by breaking waves, only the finest detrital matter (clay-sized particles) was transported further offshore in the warm, tropical seas, and then only rarely. As a result, the Mid- to Late-Cambrian deposits we find in the Watershed consist dominantly of limestones (comprised primarily of the mineral calcite (calcium carbonate,  $\text{CaCO}_3$ ) and dolomites (dominated by the mineral dolomite (calcium magnesium carbonate,  $\text{CaMg}(\text{CO}_3)_2$ )). The carbonate deposits in the Watershed belong to the Leithsville and Allentown Formations (Fig. 1).

These sedimentary deposits were precipitated biochemically by microbial or algal activity. We know this because one can recognize stromatolites (domal or bulbous deposits; Fig. 2) and oolites (small, rounded accretionary grains about the size of BBs; Fig. 3) in these rocks that are

(Continued on page 7)

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identical to modern deposits observed in tropical seas.



Fig. 2A. Modern stromatolites, Shark Bay, Australia



Fig. 2B. Cambrian stromatolites, Saratoga Springs, N.Y.

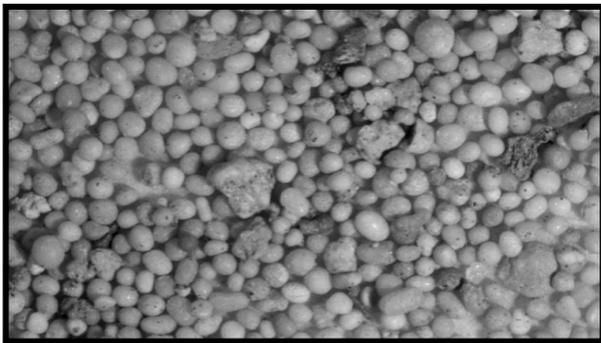


Fig. 3A. Modern oolites from Bahamas

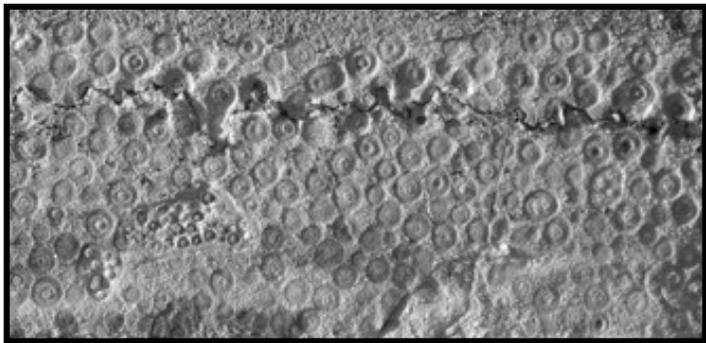


Fig. 3B. Cambrian oolites from the Leithsville Formation

Complex marine life forms continued to evolve in the Middle to Late Cambrian, dominated by burrowing organisms and both plants and animals that attached themselves to the seafloor (benthic organisms). There is indirect evidence, trackways that indicate “walking”, that some animals ventured onto land, but as no multi-cellular land plants are known from the Cambrian, the trackways probably represent near-shore excursions over tidal flats by animals whose dominant habitat was marine. The land was unvegetated and barren.

Following deposition of the tropical, Cambrian, carbonate deposits in the Watershed, the geologic record goes blank. For 235 million years. This hiatus means either that the local area was elevated above sea level and did not accumulate sediments or, if it remained below sea level and deposition did occur, it was subsequently elevated and those deposits have been eroded away. Actually, both probably happened. So, what did we miss? Just the remainder (485 – 252 MYBP) of the Paleozoic Era, during which plants and animals colonized the land (and air), the great coal deposits around the world formed, and the continental mass (Laurentia, upon which Cooks Creek really was riding) collided with, and was amalgamated into, a huge supercontinent, Gondwana (that included all of modern Antarctica, Australia, Africa, South America, North America, India, Greenland, and most of Europe). Oh, and at the end of the Paleozoic (252 MYBP), 99% of all life forms perished.

So, we missed some interesting history. But when we pick up the storyline again in the Triassic period (252-201 MYBP) it reads like a bad action-adventure film: dinosaurs, great fissures opening in the earth, volcanism. Wait for it.

## Fracking 101

By: Karl Schwartz and Scott Douglas

*This is the first in a series on hydraulic fracturing.*

Most people have heard at least a little about “fracking”, but few folks have a complete or accurate picture of what fracking is, where it is likely to happen, and what they can do about it. Given the importance of this energy production technique to Pennsylvania, and the concern about its known (and unknown) impacts on air and water quality, we thought it would be appropriate to provide the CCWA membership with a primer on the topic. There is a lot of information out there on the web and in the conventional media; hopefully this series will give everyone an appreciation for the complexity of the issue.

First of all, it is important to get our terms right (both for when we are reading and when we are speaking about fracking). Hydraulic Fracturing, commonly referred to as “fracking”, is a technique for extracting gas and oil from rock. This term is used interchangeably for both conventional and unconventional fracking. When a gas well is first drilled, the product flows freely to the well and up to the surface where it is collected. Over time the natural cracks and fissures in the formation can become plugged with debris and/or collapse, effectively stopping the well’s production. Forcing water down the well under pressure can reopen the cracks and crevices, allowing more of the resource to be removed from the same well. This conventional type of fracking has been around for about 40 years and has a pretty good safety record.

In recent years, improvements to the conventional fracking methods have been developed that not only increase production, but also allow formations to be tapped that previously would have been unprofitable. These techniques are referred to as unconventional fracking. For example, new directional drilling techniques allow drillers to dramatically increase the size and area of a well by drilling “branches” off the main vertical shaft in all directions. These expanded wells are then fractured using a mixture of water, chemicals, and silica sand to force new fissures open and to

hold them open while the gas is removed (see Figure 1). The same well can be “fracked” multiple times. In some cases, newly drilled wells are not fracked immediately, in order to wait for better wholesale prices for the product and the building of pipelines to deliver it.

The Pennsylvania Energy Impacts Assessment estimates that unconventional fracking will take place in about two-thirds of the State of Pennsylvania by the year 2030, with as many as 60,000 new wells. Since these wells, and the connecting branches, can be miles long, this new technique requires a lot more water. This water, referred to as “slickwater”, is injected into the well at pressures between 8,000 and 15,000 psi. Injections typically require an average of 20,000 cubic meters of water – equivalent of 500 tankers – plus 1,800 tons of sand, blended with additives. Permits have been issued to obtain this water from both groundwater and surface water supplies. Obviously, since these supplies are also where water for drinking, irrigation, and recreation come from, where the water comes from and how the byproducts are disposed should be carefully examined.

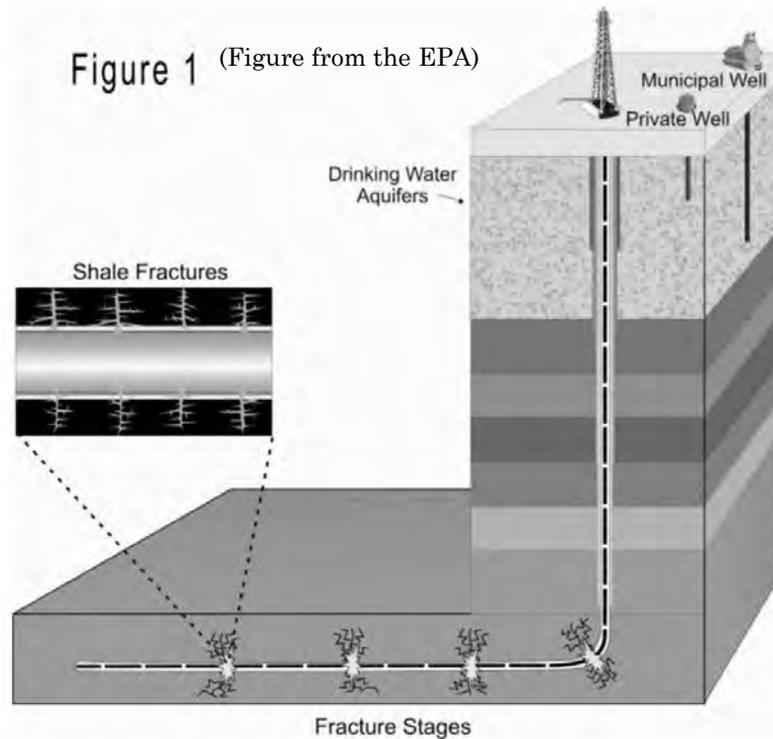
On another front, while most of the water/chemical/silica sand mixture stays in the ground, some of it flows back to the surface and must be collected in holding basins. Since the chemicals that are added to the water can be carcinogenic themselves, and the flowback water can contain petroleum compounds, heavy metals, and radioactive materials (from contact with the product), water quality is a major concern; both in the ground and on the surface. And it is this issue that the industry has had little experience with. We will discuss the potential risks associated with fracking water in our next article.

Most of you are probably aware that fracking in Pennsylvania is currently centered on the Marcellus Shale formations in the northeastern and western part of the Commonwealth. You are probably relieved to know that there is no Marcellus Shale in the Cooks Creek Watershed. However, there are other gas bearing formations deep under our communities. The Locketong and Newark formations, while not likely to have nearly as much gas in them, lie under our watershed and throughout the Dela-

*(Continued on page 9)*

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ware Valley. We think it is prudent to make ourselves well educated about fracking so that we are prepared should “land men” come calling here, or should the drilling companies look to extract water from our aquifer to frack wells in nearby watersheds.



(Continued from page 2)

### ...Fischer (From Creature Feature)

chicken coops and compost piles. They readily feed on carrion of all kinds, and I imagine that this may be the reason they are credited with taking deer. Man is by far their biggest enemy, but Bobcat and Lynx consider turnabout fair play. Bear are also known to prey on Fishers.

It is due to our enormous efforts here in our Watershed that we have the privilege of seeing Fishers again. Large tracts of undisturbed forest are needed to support Fishers, as well as Bobcat and other larger carnivores. It is a sign that our management and stewardship efforts are paying off. While you may never see a Fisher in your backyard, their cry is similar to the hair raising, dying baby-like scream of a fox. If you want, there are many recordings of Fisher cries on the internet. Fisher tracks are distinctive, with the obvious heavy claw marks and turned-in aspect. If you happen to see a Fisher, or signs, please let us know about it by dropping me a line at [info@cookscreekpa.org](mailto:info@cookscreekpa.org).

More information at: [www.dem.ri.gov/programs/bnatres/fishwild/pdf/fishers.pdf](http://www.dem.ri.gov/programs/bnatres/fishwild/pdf/fishers.pdf)

## Back to the Past

By: Lois and David Oleksa

*A column highlighting items of interest concerning the historical features of the Watershed.*

**DURHAM CAVE** - Dr. Joseph Leidy gives the following list of animal remains found in the Durham cave, Durham township, Bucks county, Pa.

**Pennsylvania Geological Survey of Pennsylvania - 1887 - page 1**

1-Black Bear	Ursus Americanna
2-Raccoon	Procyon lotor
3-Gray Fox	Vulpes cinereoargentatus
4-Skunk	Mephitis mephitica
5-Woodchuck	Arctomys monex
6-Porcupine	Erethizon doratus
7-Beaver	Castor fiber
8-Muskrat	Fiber zibethicus
9-Gray Squirrel	Sciurus carolinensis
10-Wood Rat	Neotoma floridana
11-Gray Rabbit	Lepus sylvaticus
12-Deer	Cervus Virginanus
13-Elk	Cervus canadensis
14-Moose	Alceo americanus
15-Wild Turkey	Meleagris gallopavo
16-Box Turtle	Cistudo clausa
17-Snapper	Chelydea serpantina
18-Snake	Eutaenia sirtalis
19-Sturgeon	Acipenses sturis
20-Catfish	Amiurus atrarius

(Continued to page 11)

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Dr. Henry C. Mercer in his exploration of the Durham cave, summer of 1893 found the following animal remains, which he found on the floor of "Queen Esther's Drawing Room".

See Publications of University of Pennsylvania - Vol. VI - page 170 &c.

The following were identified by Prof. E.D.Cope

1 - Chub	Semotilus	12-Fox	Enethizon dorsatus
2 - Catfish	Amiurus	13-Wood Mouse	Peromyscus
3 - Frog (large)	Rana	14-Rabbit	Lepus
4 - Frog (small)	Rana	15-Carnivore	Undetermined
5 - Tortois	Cistudo	16-Fox	Vulpes cinereoargen- tatus
6 - Rattlesnake	Crotalus	17-Black Bear	Ursus americannus
7 - Watersnake	Natrix or Eutaenia	18-Wild Cat	Lynx rufus
8 - Snake	Undetermined	19-Bat	Undetermined
9 - Grouse	Bonasa	20-Peccary	Mylohyus pennsylvanicus
10 - Squirrel	Sciurus	21-Deer	Cariacus virginianus
11 - Beaver	Castor fiber	22-Elk	Cervus canadensis

The following identified by Dr. Harrison Allen-Remains of Rats

1-Adelonyeteris fusca 2-Vespartilio gryphus

The following shells identified by H.A.Pilsbry

1-Unio Complanatus 4-Polygyra albolabris  
2-Pyramidula alternata 5-Physa heterostropha  
3-Polygyra albolabris 6-Lymnaea catascopium

More information: An interesting bit of research to add to this article can be found at:  
<http://lenapenation.org/content/Research%20of%20Don%20Repsher%20-%20Durham%20Cave.pdf>

## Children's Backyard: Annual Tree Rings

*Article and pictures by: David and Lois Oleksa*

Trees are some of the most magnificent organisms on earth. They range in size from small specimens found in the far north to huge ones like the giant redwoods and sequoias on the west coast. Have you ever wondered how a tree grows? Of course we can see them get taller year by year but also, their trunks get thicker each year. This thickening of the trunk is caused by the addition of something called an annual growth ring.

When a tree is cut down, if you look at the cut end you will see what appears to be a series of circles, one inside the other. These are the annual growth rings. They tell us a lot about the tree's history. Since they are called annual growth rings, it means that one is formed every year. It's easy to understand that if you count the number of rings, you will be able to tell how old the tree is. It is very interesting to find large trees that have been cut down and upon counting the rings discover that the tree had been alive when George Washington walked our beautiful Bucks County.



But the tree rings tell us more than the age of the tree. You might notice that some of the rings appear to be wider than the others. There is a good reason for this. When a particular year had a lot of rain, the tree grew a wide ring. When the year was one of drought, the ring was narrower. So you can count the rings from the bark area towards the center and observe the differences in width. If you subtract the number of rings from the bark to a particular ring, from the year that the tree was cut down, you can determine what the weather was like during the year corresponding with that growth ring. People who study tree rings are known as dendrochronologists. These scientists don't even have to cut a tree down to get access to its rings. They developed a tool that pushes a thin metal tube through a tree to its center. When this tube is pulled out, they are able to extract a core sample which looks like a skinny ringed stick. Each ring or segment of the core sample corresponds to a growth ring.

Sometimes it's not so easy to count the rings. Sometimes the rings are very narrow, especially when the tree was young or if there were several years of drought in a row. In addition, if you look closely at the rings you will notice that each is composed of two separate bands, one lighter in color than the other. The light one is formed in the spring and summer months and is known as "early wood". The darker portion of the annual ring is the "late wood" that developed in the fall and winter.

All this may sound confusing and you may need to practice to distinguish between the layers to get an accurate count but the effort is worth it.

The annual rings can be beautiful and there are some artists who smooth the cut end of a tree trunk by sanding it and then they subject the surface to the high heat of a torch for a brief bit of time. (This has the tendency to raise the individual rings just a bit.) Once this is done, they spread ink or paint on the surface and carefully place a piece of paper on it. They apply an even pressure to the paper and then carefully

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peel it off the wood. The result is a beautiful print of the tree's annual rings.

Another interesting experiment is to count the rings back to when you were born and see how big the tree was then. You might be able to count rings back to the year your Mom or Dad was born. It's always interesting to see how much the tree grew between two specific years. Who knows; maybe you'll get so interested that you decide to become a dendrochronologist.

## Tree Ring Activity: Ring Rubbings

Make crayon rubbings of annual rings from several trees. We lost many trees with October's Super Storm Sandy. Take a look in the piles of cut up limbs and stumps and find a good specimen.

Simply put lightweight paper over the rings and rub on the paper with the side of a crayon (figure 1).

Enjoy the piece of art work (figure 2.). Compare yours with Bryan Nash Gill's website (<http://www.bryannashgill.com/gallery.html&gid=6&gpn=0>).

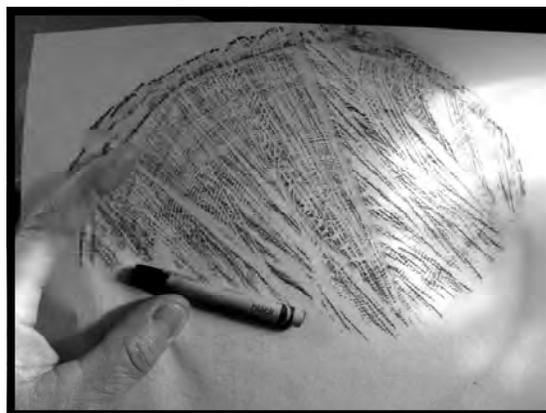


Figure 1-Crayon rubbing

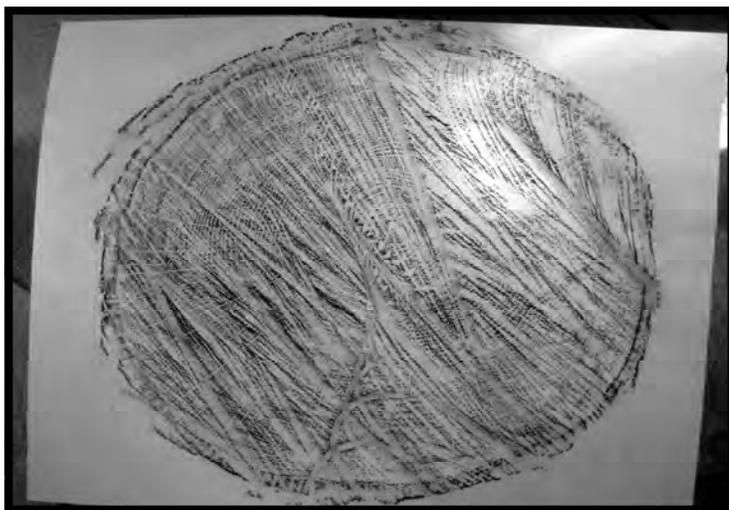


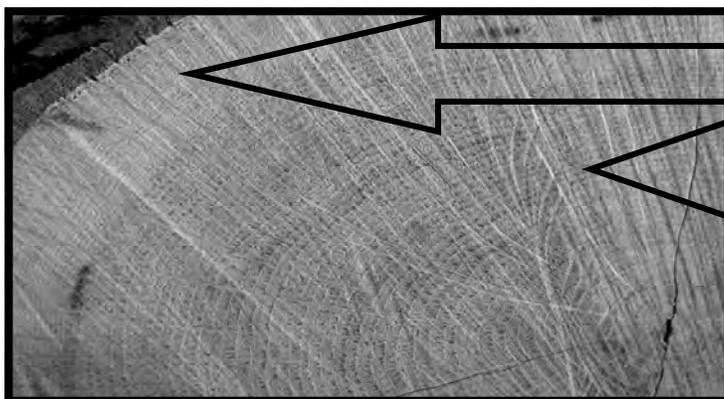
Figure 2-Finished art work

How do the annual ring patterns of different species of trees vary?

Which tree is the oldest?

If the tree was cut up after Super Storm Sandy, you can count backwards on the rings and identify the rings that match up with the important dates in the Watershed or Nation, or your date of birth.

Mark and label those rings.



Whose birthday? Your birthday?

Is this ring older than you?

More information on tree rings: *Real Trees 4 Kids* at <http://www.realtrees4kids.org>

# 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; 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 4 PM,  
Saturday 9 AM to 4 PM, Sunday 11AM to 3 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.

### 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.



# 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 Tues. @ 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:**  
 3rd Thurs. @ 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 Wed. @ 7 PM  
**Planning Commission:** 3rd Wed. @ 7 PM  
**Land Preservation Board:**  
 3rd Mon. @ 7 PM

**Richland Township:**  
[www.richlandtownship.org](http://www.richlandtownship.org)  
 215-536-4066  
 1328 California Road

**Supervisors:** 2nd and 4th Mon. @ 7 PM  
**Planning Commission:** 3rd Tues. @ 7 PM  
**Preservation Board:** 2nd Thurs. @ 7 PM

## Springtown Volunteer Fire Company's : Used clothing drop-off shed

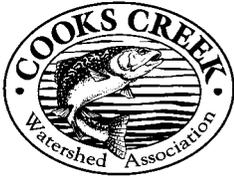
**Location:** 3010 Route 212, Springtown, Pa (Parking Lot)

**Items Accepted:** All clothing, shoes, sneakers, belts, purses, blankets, sheets, pillowcases, drapes, and stuffed toys. *Your donation will not be cut up or shredded. Please, no rags, fabric scraps, toys or household goods, these items are a hardship and expense for us to dispose of.*



**Company:** Turnkey Enterprises, LLC is a member of the Better Business Bureau. Our mission is to get USEABLE clothing to people who can use it, here in the U.S. and in 3rd World Countries. Secondly, it is our goal to help support local organizations.

**WWW.Turnkey-Enterprises.com :** For more information. *Help us keep your donation clean and dry, please put your donation in plastic bags. Thank You.*



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

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**

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

## 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 wild-flowers 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 \_\_\_\_\_

**Student Membership Fee:** \$ 10.00 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.*