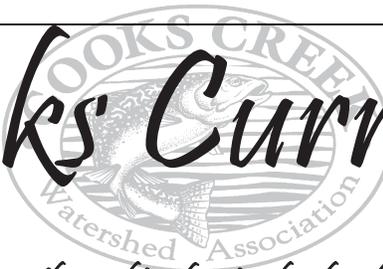


# Cooks Current



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

Volume 16, Issue 1

Newsletter of the Cooks Creek Watershed

Winter 2019

## 2019 Events

### Regular Board Meetings:

Springtown Fire House- 7:30PM

4<sup>th</sup> Thursday of the month except Nov. and Dec. which is the 3<sup>rd</sup> Thursday; All are welcome! We appreciate your involvement

### Special Events

**Apr. 6, Spring Clean-Up**, 9am-4pm, Springtown Fire Company;  
**Apr. 25, fourth Thurs.**,  
**Annual Meeting**, 7:30pm, Springtown Fire Company;  
**June 15, Mini Monster Mayhem**, 9:30am-Noon, The Douglas', 3450 Rt. 212, Springtown, PA;  
**July 13, Native Plant and Invasive Workshop** TBD;  
**Springfield Community Day - TBD**;  
**Oct. 5, Fall Dinner**, 5pm-9pm, Springtown Rod & Gun Club;  
**Oct. 6, Walk in Penn's Woods**, TBD;  
**Oct. 12, Durham Community Day**, Noon-3pm, Durham Mill Green;  
**Nov 19, Fall Clean-Up**, 9-Noon, meet at Old Philadelphia & Rt. 212 & Gal-lows Hill Rd.



See back for details!

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

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

### Board Members:

**President:** W. Scott Douglas

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Ellie Scheitrum

### Additional Members:

Sarah Snider, Stephen Smith, MD,

## From Across the Board...

As I watch the snow fall on this late January day, I am thinking about the predicted record setting arctic blast and how the pundits will likely spin it as a sign that climate change is a hoax.

Without going too far, let me just say that climate change includes instability in both temperature directions, and events like this should strengthen our resolve to reduce our global, national, local, personal carbon footprint. Speaking of taking action, let me tell you what we've been up to and what we have planned.

After more than a year of discussion, some helpful and productive, some not, Springfield Township has finally agreed to erect a memorial to Hans at Peppermint Park. A bench has been installed under the lone tulip poplar tree at the crest of the hill. It is a beautiful spot with a magnificent view – exactly the kind of spot Hans would have relished. The CCWA has contributed \$300 toward the cost of the bench. A memorial plaque will be inscribed



*Bench placed in honor of Hans O. Reiman. Visit Peppermint Park and enjoy the peaceful view and think of Hans.*

and placed on the bench during a memorial ceremony currently planned for Earth Day. We will keep you posted as to date and exact time.

Speaking of fighting the good fight, we continue to work on the pipelines threatening our watershed. CCWA recently signed onto a letter urging the members of the Delaware River Basin Commission to stringently review the PennEast applications for permits in the light of the sensitivity of both the river and the surrounding lands, historical resources and sensitive wildlife.

CCWA also submitted a

letter critical of the recently published Environmental Assessment (EA) for the upgrades to the Adelpia pipeline. It is our position that the EA is incomplete because it does not address the potential danger of a re-stored pipeline to impact the Cooks Creek Watershed. The proponents argue that since no work is currently proposed in our Watershed, then they do not need to address the potential impacts. We believe that dramatically increasing the throughput in a 40 year old pipeline will certainly require more maintenance on,

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and potential replacement of, sections that run through our Watershed. This avoidance of having to address doing this work in an Exceptional Value watershed is considered “segmentation” and is not allowed under the National Environmental Policy Act (NEPA).

On a brighter note, late last fall Lois Oleksa ran into a fisherman working the creek below her farm on Durham Rd and he showed her an unusual trout. It was a Tiger Trout, which is a sterile hybrid between a Brown Trout and a Brook Trout. It has beautiful markings, but the aggressive facial features of a brown trout. While in a perfect world there would be no brown trout in Cooks Creek at all, it is encouraging to know that there are enough mature brookies left to create this hybrid and for it to thrive. Evolution works in strange ways; perhaps if our brookies cannot beat ‘em, they should join ‘em!

We have started work on the stream gauging station upgrades and water quality monitoring for which we received the Growing Greener grant. The hydrologists at Princeton Hydro are evaluating our data and options for upgrades, while Ethan Scott of Springtown and I performed stream assessments and collected samples for a bioassessment. Ethan and I will be working all winter to separate the invertebrates from the gravel, leaves, and algae as well as sorting, counting and identifying them. I hope to report our findings in the next newsletter. Princeton Hydro also intends to collect water quality samples and to gauge the stream-flow sometime in February.

Upcoming events for you to participate in include our Spring Roadside Cleanup on April 6th, our Annual Meeting on April 25<sup>th</sup>, and our Mini Monster Mayhem on June 15<sup>th</sup>. I hope to see you at one or all of these events.

Yours in conservation, W. Scott Douglas, President



**\* Botanical Focus: Shagbark Hickory (*Carya ovata*)** By: David Oleksa

\* *This is the 10<sup>th</sup> installment in a series of articles on the flora of the Cooks Creek Watershed.*

\* The intersection of Rte. 611 and Lehnenberg Road in Durham Township is the site of a long since gone historic handle factory. Prior to the American Revolution and for some time thereafter, this factory produced thousands of wood handles for hammers, axes, rakes, shovels, picks, pitchforks, mauls and other tools necessary for that age. These handles were shipped to destinations in England and Europe as well as the American colonies. “Why”, you may ask, “did such a thriving business exist in this out of the way location”?

\* The answer lies in the prevalence of a particularly strong and hard wooded tree that grows in the vicinity, the Shagbark Hickory.

\* The Shagbark Hickory (*Carya ovata*), literally translated as “the oval nut”, is one of nearly 20 species of these deciduous trees (hickories) found around the world, 12 of which are native to North America. These 12 are broken into three groups which include the shagbark, the pig nut, and the pecan. All three can grow in the Cooks Creek Watershed area but the shagbark is by far the most prevalent.



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Since the near demise of the American chestnut, hickories have taken over the number two spot (next to oak) as providers of nourishing mast in the eastern U.S. forests. Growing to between 90 and 130 feet in height, these majestic trees provide nuts for both human and animal consumption, wood for a variety of uses where strength and resistance to shock is important and also as a fuel whose fragrant smoke is imparted to flavor meats. In addition, its autumn foliage of a brilliant golden hue puts the yellow fall maples to shame and makes this tree a beautiful addition to any landscape.

The word "hickory" comes from the Algonquin "pawcohickora" and it should come as no surprise that hickory nuts were an important food source for the Native Americans who populated this area. When we speak of the fruit (nuts) from hickory trees, we really deal with three specific parts; the husk, the hard outer shell under the husk and the meat of the nut within the hard shell.

The term "shagbark" is quite descriptive as anyone can see once one of these trees comes into view. The bark along the entire length of the trunk of the tree looks "shaggy" with pieces of bark six to eight inches in length loosening themselves from either top or bottom in a vertical manner. These pieces of bark can be easily removed from the tree with no damage. Because of this distinctive pattern, it is hard to misidentify the shagbark hickory. Since hickories are part of the walnut family another identification feature is their compound leaves that are attached to the branch in an alternate fashion.

Nuts are ripe and should be harvested in September and October when the outer husk turns from a brilliant green to a brownish-black in color. Often the nuts fall to the ground on their own, the hulls splitting into four parts making the harvest of hard-shelled nuts quite easy. Any nuts that display a small hole in the hard shell should be discarded immediately since this is a sign that the nut was invaded by a weevil-like organism that makes the meat of the nut inedible. Don't go to the bother of cracking such nuts.

The best way to crack the highly armored nuts is to use a vice or hammer, applying the force to the sides of the nut rather than to the ends. The best technique is to crack the shell and then, using a nut pick, attempt to withdraw as large pieces of the nut meat as possible from the pieces of shell. Once you have discovered a productive site for nuts, visit at least once a day. Fallen nuts don't last long since they are a favorite food of deer, turkeys, squirrels, chipmunks, mice and other critters.

Because of the hard work involved in harvesting these delicious nuts, many people have ignored them. Once you've tasted them however, whether raw, roasted or made into a pie (similar to pecan) you may find the labor-intensive harvesting as being worthwhile.

It is difficult to transplant hickory trees since their long taproot, if damaged, will cause the sapling to die. That's why it is nearly impossible to take a wild hickory tree and tame it to your property expecting a plethora of tasty hickory nuts. There are cultivars available from reputable nurseries but even in these instances it is important to ask for a money back guarantee before purchasing because of the high percentage of loss. The first year that the tree produces nuts, they are inedible. The second year a few may be harvested and the third year a good yield can be expected. It is important to remember that every two or three years the tree will produce very few if any nuts as it goes into a resting period.

I hope this information has made you more aware of this interesting tree that we are lucky to have growing in our watershed.



## Children's Backyard and Activity: Eco Friendly Books, Books with Environmental Messages and Nature Books

By: Lois Oleksa

Winter's a great time to do a bunch more reading. Check out your local library and take a look at some of the following suggestions. Becky Finberg, a Youth Services Coordinator at Riegelsville Public Library



helped me pick out books that the library has concerning environmental issues. Most of these titles are sitting on the shelves ready to be checked out. There are titles for those just starting to read, middle schoolers and teens. The library also runs a science summer program that you should check out.

### Beginning Readers/Picture Books:

*On the Day You Were Born* by Debra Frasier. On a spinning earth, animals migrate, gravity pulls the sun flares and the moon glows, trees grow and people sing to welcome a baby.

*Fancy Nancy Every Day is Earth Day* by Jane O'Connor. Nancy makes sure her mom, dad, and little sister do their part in being green. But has she gone too far? Learn how to respect both the Earth and your family.

*Lucy's Lab Series – Nuts about Science / Solids, liquids, guess who's got gas? / The Colossal Fossil Fiasco* by Michelle Houts. Young readers will be inspired to start their own labs.

*Miss Maple's Seeds* by Eliza Wheeler. Miss Maple gathers lost seeds and sends them off to ride the winds and tides knowing that even the grandest tree and most brilliant flower had to grow from the smallest of seeds.

### Ages 4-8:

*Saving Our Animal Friends* by Susan McGrath. The best way to protect animals is to protect their habitat.

*Milo and the Magical Stones* by Marcus Pfister. An environmental story with two endings.

*Miss Fox's Class Goes Green* by Eileen Spinelli. Miss Fox's class works to keep the earth healthy.

*Over and Under the Pond* by Kate Messner with art by Christopher Silas Neal. Gliding over a pond, what do you see? And, under the pond is a whole new world! Also, *Up in the Garden and Down in the Dirt* and *Over and Under the Snow*.

*Some Bugs* by Angela Diterlizzi, bugs by Brendan Wenzel. A delightful book of backyard bugs. Beautifully illustrated.

*Pale Male: Citizen Hawk of New York City* by Janet Schulman. This is the kid's version of the book *Red-Tails in Love: the story of the hawk that captured the heart of a city*.

*The Magic School Bus and the Climate Challenges* by Joanna Cole & Bruce Degen. The famous teacher, Ms. Frizzle, and her class talk about the topic of climate change.

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*The Giving Tree* by Shel Silverstein. A lesson on the gift of giving.

*Me ... Jane* by Patrick McDonnell. The story of the young Jane Goodall, her special childhood toy chimpanzee and dreaming of a life helping all animals.

*Follow the Trail: A young Person's Guide to the Great Outdoors* by Jessica Loy. This book is full of camping ideas that will add spice to your next hike in the woods. Learn knots, how to interpret with the clouds, sounds of common birds, tracks of animals, tree bark and pinecones and of course camping tips and games.

### **Ages 10+**

*Making Good Choices about Conservation* by Janey Levy. Conservation is important in being green. What are the ways of taking care of our natural resources? How to making careful decisions.

*Eyes Wide Open: Going Beyond the Environmental Headlines* by Paul Fleischman. How to become an informed, responsible global citizen.

*Hoot / Flush / Scat* by Carl Hiaasen. Three books Hiaasen has written for young readers all as mysteries but with an environmental theme.

*My Side of the Mountain / On the Far Side of the Mountain / Frightful's Mountain* by Jean Craighead George. Another set of three book. The story of a peregrine falcon involving wildlife, freedom, environmentalism, conservation, man and nature.

*Jane Goodall friend of the Chimps* by Eileen Lucas. A biography of the zoologist Jane Goodall.

*Fuzzy Mud* by Louis Sachar. Have you read *Holes*? This is another middle-grade novel dealing with the possibility of ecological disaster. You'll think twice about how you treat others as well as your environment. Hot-button topics, including over-population, the energy crisis and bio engineering risks.

**Check us out on the web for more information and Children's Back Yard from past brochures!**

**[www.cookscreekpa](http://www.cookscreekpa)**



## **Renew Your Membership for 2019**

Cooks Creek is an important resource for our community. Don't forget to renew your membership and stay up to date on issues concerning our Watershed.

If you want to get more involved, come to a meeting and share your talents and interests!

**Find the membership form on the back page.**

## Green Tip #45: Is so-called eco-friendly dry cleaning a reality?

*EarthTalk® is produced by Roddy Scheer & Doug Moss for the 501(c)3 nonprofit EarthTalk.*

Although some greener alternatives exist, most dry cleaners still use perchloroethylene (“perc” for short), a petroleum-based solvent that can be hazardous to the human central nervous system, with exposure causing headaches, nausea, dizziness and memory problems for some people.

Perc’s constituent components—phosgene, vinyl chloride, carbon tetrachloride and trichloroacetic acid (TCA)—have also been linked to a range of other health issues, including liver and kidney malfunction, reproductive abnormalities and even cancer. The U.S. Environmental Protection Agency (EPA) regulates perc under the Toxic Substances Control Act, the Clean Water Act and the Safe Drinking Water Act.

Luckily for consumers, safer alternatives to perc for dry cleaning are available. The most common comes from a company called GreenEarth Cleaning, whose products and process form the backbone of a large network of independent “green” dry cleaners across the United States. GreenEarth’s process uses biodegradable liquid silicone—essentially liquified sand—in place of petrochemicals. Since liquid silicone is chemically inert, it doesn’t react with fabric fibers, and is safe to use on delicate garments—beads, lace, silk, cashmere—and won’t cause shrinkage. And perhaps best of all, it breaks down into natural elements (sand, water and carbon dioxide) that are safe for air, water, soil and people. In fact, liquid silicone is so safe that it is often a base ingredient in many everyday shampoos, conditioners and lotions that we put right onto our skin with no ill effects.



From its humble beginnings in a lab back in 1998, GreenEarth’s system is now used by some 6,000 dry cleaners globally. You can try to find one near you via a zip code search on the company’s website.

Another green alternative to dry cleaning is so-called professional wet cleaning, whereby fabric is laundered in a computer-controlled washer and dryer that uses water along with specialized soaps and conditioners instead of solvent—and spins its contents much more slowly than a typical home washing machine. The result is that it’s much gentler on fragile clothing.

Yet another eco-friendly choice is liquid carbon dioxide (CO<sub>2</sub>) cleaning, which uses pressurized CO<sub>2</sub> in combination with other gentle cleaning agents to dissolve dirt, fats and oils in clothing instead of perc.

One often-overlooked option is simply to hand-wash delicate clothes and fabrics in Woolite or some other non-toxic detergent, and then hang them to dry. If you need your hand-washed clothes to have a finished pressed look, you can take them to a standard cleaner for pressing only.

Despite the existence of greener alternatives, four out of five dry cleaners still use perc. Consumers should beware of dry cleaners that advertise their process as organic, given that perc can be considered organic because its petroleum-based chemicals do come out of the ground. If you aren’t sure about that neighborhood dry cleaner, ask them a few questions to find out what makes them consider themselves green. Just because they might recycle hangers or plastic bags doesn’t get them off the hook as polluters if they use perc or other hazardous substances or processes.

**CONTACTS:** GreenEarth, [www.greenearthcleaning.com](http://www.greenearthcleaning.com); EPA’s “Outdoor Air - Industry, Business, and Home: Dry Cleaning Operations,” [archive.epa.gov/airquality/community/web/html/drycleaning.html](http://archive.epa.gov/airquality/community/web/html/drycleaning.html).

## Creature Feature: Eastern Raccoon (*Procyon lotor*) By: W. Scott Douglas

This is the 47<sup>th</sup> installment in a series of articles on the fauna of Cooks Creek Watershed.



Last fall I was awakened early on a Sunday morning by my dog Tucker barking hysterically at something. I stumbled to the deck and saw that he was barking at something in our garden shed. I could hear a strange combination of growls and trills coming from the shed that I could not place. I retrieved a flashlight and went down to investigate. When I pointed my flashlight into the shed I was met with the bandit face of what appeared to me to be a very scared young raccoon. I was surprised at first, because in the thirty or so years I have been living here, I had yet to have a raccoon hole up in one of my outbuildings. When I was growing up in VT, we had many such visits, mostly to raid the garbage cans. I knew he would leave once the dog was removed. So I gathered up my excited hound, and went back to bed.

This, is a very interesting animal indeed. More closely related to modern bears than any other living creature, raccoons are known for their resourcefulness and intelligence. Raccoons are medium sized mammals, but widely ranging in size anywhere from 10 to

60 pounds and 16-28 inches in length (not including the tail). They are incredibly adaptable and widely distributed all over North America and have been introduced into Europe and Asia. They are preyed upon by bobcats, coyotes and fishers, but their biggest enemies are dogs and humans. In recent times, automobiles claim the lives of more raccoons than anything else. Raccoons are primarily nocturnal, and spend their nights foraging for a wide variety of foods ranging from fruits, berries and nuts, to crayfish, turtles and frogs to rodents, eggs, and human garbage. Raccoons are highly intelligent, and they've been known to not only solve complex puzzles for food, but remember the solutions for up to three years! The best way to describe a raccoon's gait is a waddle, but they can move up to 10-15 miles per hour when chased, and are adept at both climbing and swimming. Raccoons have been known to purposefully take to water to throw chasing predators off their scent.

Raccoons have a home range of up to 3-4 square miles in regions such as ours, higher in the plains. They will den almost anywhere, but they prefer to nest in hollows high up in trees. Typically, female raccoons come into heat in late winter or early spring. If successfully fertilized, gestation will last 60-65 days, with a resulting litter of from 3-7 cubs or "kits". Kits are only partially haired, blind and deaf at birth. Their eyes and ears open at about 19 days. Typically, the female will keep the kits in the den for 30-60 days. Kits can eat solid food at 9 weeks, but weaning is not completed until about 16 weeks of age. The males do not assist with the rearing of young at all, but the female and kits will remain as a family unit all summer, and sometimes into the winter if conditions are particularly harsh. Despite the fact that the typical food for a raccoon is not available in the cold of the winter, they do not hibernate. If not hit by a car, raccoons typically live for 5-6 years in the wild.

I imagine everyone who reads this article has seen a raccoon at some point, either scrounging around their garbage, or waddling across the road. The best chance of observing one in its natural habitat requires spending time in a wooded area at night, mostly near water, such as our Creek. While they can be very entertaining to watch, care should be taken to avoid approaching any raccoon, as they can carry a number of diseases including distemper and rabies. It's probably safer to observe their movements during the day via their tracks, which they are not shy about leaving about for you to find and follow.



## A Few Vegetable Gardening Tips A-B (for a start) *By: Steve Smith*

**Asparagus:** No doubt about it, one of the most rewarding crops you can plant. The most efficient way to start asparagus is with one year old crowns, a rather strange looking broom like collection of succulent roots. Buy “all male” varieties such as Jersey Knight, Jersey Giant or Purple Passion. Good drainage is important so planting in raised beds is optimal. 25 crowns should be sufficient for a family of four. Plant the crowns (after a ½ hour soak) in a trench 6” deep. Cover with four inches of soil at first then add a couple inches a week until slightly mounded up. Start harvesting in the third year by cutting off the spears with a sharp knife just below ground level. In our area, harvesting usually begins in May and lasts until mid-June. The Roman emperor Tiberius instructed his garden boys to run back with the freshly cut spears...very fresh makes a big difference in taste. I find the very thick spears every bit as tasty as thinner spears. Asparagus will continue to produce for about twenty years. Allow the small spears at the end of the season to grow into tall fern like plants then snip these off at ground level and discard them in the early spring. An application of wood ashes in late fall or early spring is helpful as is adding a few inches of mushroom soil each year. Don’t cut back the tall fern like plants in the fall when still green!



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**Asperbroc:** A variety of broccolini or small headed broccoli this is a great crop yielding delicious small heads, stems and leaves for about a six week window. Spraying with BT may be necessary as with all cole crops to discourage cabbage looper larvae. Trimming the main stem when dime size is said to yield more usable side shoots. The more succulent stems beneath the larger heads are still edible later in the season. There are a number of varieties similar to asperbroc including “piricicaba” which are not only delicious and productive but very nutritious. Start indoors 6 weeks before last frost, then plant about 2 feet apart. Side shoots will keep producing although with smaller heads.

**Beets:** Sow seeds directly in the soil in early to mid-spring about ¾” deep. Each beet seed will produce 3-5 beets and these must be thinned out when they are still small leaving only one beet behind. I throw the thinned beets into a bucket with a couple inches of water and transplant them into another bed or two immediately. The leaves will wilt but the transplants will thrive and yield beets as good as or better than the parent bed. Beets can be a little tricky, sometimes becoming fibrous or with an off taste. My research into why this happens has not been revealing. Meadow voles can damage a good portion of the crop. (A good case for a kestrel box, Jack Russell terriers or cats!) Try Touchstone Gold along with standard red varieties such as the old Lutz Winter keeper.



**Brussels sprouts:** I have given up on this crop although I love eating them. They never seem to get big enough to make them worthwhile. I’d be happy to hear from anyone who has had success in growing big sprouts. Topping them as they start to mature probably helps.

**Bush Beans:** The newer varieties of thin round fillet beans such as Stiletto and Jade are spectacular performers. If you plant them densely in a raised bed you will notice that they produce most abundantly around the periphery, especially the southwest corner. For taste it’s hard to beat Dragon’s Tounge and Roma II.

**Pole beans:** I grow these on baling twine strung in one long piece on nails placed 6” apart both at ground level inside the boards forming the raised bed and a horizontal beam at 10’. My personal favorite is Roma... unfortunately no longer available in catalogs but I’ve been saving the seeds. If you would like some to try in your garden email me at [stephenhsmith2u2@gmail.com](mailto:stephenhsmith2u2@gmail.com).

## The Clean Water Act, What it Means to Us *By: Jim Orben*



The Federal Water Pollution Control Act was enacted in 1948 and substantially rewritten in 1972, again in 1977, and the current form of the law was passed in 1987. The waters protected by the Clean Water Act (CWA) as written in 1972 include all waters with a significant nexus to navigable waters. This definition has been tested in the courts and in 2006 the Supreme Court defined the protected waters as including only those relatively permanent, standing or continuously flowing bodies of water forming geographic features that are described in ordinary parlance as streams, oceans, rivers, and lakes. So what does this actually mean to us?

In 1969 the Cuyahoga River in Ohio caught fire near the Republic Steel mill. This was not the first time the Cuyahoga burned, but this time the fire caused about \$100,000 in damage to two railroad bridges and spurred the creation of the Clean Water Act in 1972. Oil on the Cuyahoga was not the only problem facing the waterways of our country. Years of indiscriminate dumping of all kinds, including raw sewage, industrial wastes, and thermal pollution, had contaminated our waterways and created dead zones and areas of eutrophication. Many rivers and streams, including the Lehigh and the Delaware, suffered as a result. The Environmental Protection Agency (EPA) was created in 1970 and the CWA gave the EPA the authority to require permits regulating the types and amounts of pollutants that could be released into the waters of the United States. The CWA also provided grants to build municipal sewage treatment facilities making it possible to nearly eliminate the discharge of raw sewage. It took time, but the water quality improved, and many of the formerly polluted streams and rivers have become prime recreation sites and valued assets in America's cities.

Wetlands are the heart and source of America's streams and rivers and the 2006 Supreme Court decision removed wetlands from regulation under the CWA except for one specific situation. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into the waters of the United States, including wetlands. Section 404(c) gives EPA the authority to prohibit the use of any defined area as a disposal site. The current administration is attempting to limit EPA's use of section 404(c), making it easier for wetlands to be used as disposal sites. EPA has used Section 404(c) thirteen times since 1972 to stop projects in twelve different states. EPA reviews approximately 68,000 permits each year and has stopped only thirteen projects. What would cause so much interest in such a seldom used regulation?

The Pebble Mine in Alaska's south central upland region. This region contains the headwaters for streams and rivers that flow into Bristol Bay supporting the largest salmon runs in the world. These combined fisheries produce about \$1.6 billion each year. In 2014, at the behest of Alaska Native tribes, commercial and sport fishing groups, and 20,000 Alaskans who commented against Pebble Mine, the EPA initiated a 404(c) action that would restrict mine waste from being deposited in some waters of the Bristol Bay watershed. The proposed Pebble Mine is the largest known deposit of copper, gold, silver and molybdenum ore on earth and is expected to produce at least \$500 billion of these metals in its 20 to 45 year lifetime. What will happen comes down to a balancing act. On one side there are the fish, the fishers and the environment that supports them and on the other side the claims to preserve the fish while extracting millions of pounds of metal ores. The EPA's 404(c) action seemed to tip the balance toward the fish. Then when Scott Pruitt took the helm at EPA the balance shifted back toward the mine for a while. It seems that there are a lot of enthusiastic Republicans on both sides causing Pruitt to waffle. As we know Scott Pruitt is no longer in charge at EPA, and what will happen to Pebble Mine is unknown. What we do know is that some of the power of EPA's 404(c) actions to protect the waters of the United States will probably be lost in this exchange.

The Army Corps of Engineers (USACE) is preparing a Draft Environmental Impact Statement (Draft EIS) to be published on February 22, 2019. Public comment will be accepted until the end of May 2019. If you wish to comment on the Draft EIS the USACE can be reached through the Pebble Mine Project Manager, Shane McCoy (907) 753-2712, [www.poa.usace.army.mil](http://www.poa.usace.army.mil)

**Back to the Past: Indigenous and Naturalized Flowering Plants, Ferns, and Fern Allies of Bucks County.** A column highlighting the natural history of the Watershed. Compiled by Lois Oleksa.

*By Dr. Isaac S. Moyer, Quakertown, PA. (Quakertown Meeting, April 15, 1884)*

*Two pages of the FLOWERING PLANTS, ETC., OF BUCKS COUNTY*

*From: A Collection of Papers Read Before the Bucks County Historical Society Published for the society by B.F. Fackenthal, Jr., Riegelsville, PA Volume I – 1908*

*The following describes the northern meadows of Bucks County covered with rose-colored **pogonia** and the peat-bogs of Springfield producing masses of purple blooming **calopogon**. Read on about the Bucks County forests, trees and streams of 1884 continued on pages 12 and 13.*

### **Rose-colored pogonia and the stately calopogon:**

As described by Dr. Moyer in 1884 the rose-colored pogonia and the calopogon are truly special plants.

The **rose-colored pogonia** (*Pogonia ophioglossoides*) is a native orchid growing in wetlands (particularly bogs), producing pink flowers in the summer. The Latin name “Pogonia” means “beard”, referring to the bearded lip on the flower. The species name “Ophioglossoides” comes from the word “orphis” (meaning "snake"), “glassa” (meaning "tongue"), and “eidos” (meaning "like"). And so this orchid is also referred to as Snake Mouth, Snakemouth Orchid, and Snake-mouth Orchid. The fresh flower reportedly has a sweet scent. It is a single flower on a slender stem with a clasping leaf half way up the stem. There are also long-stalked leaves near the base, having smooth leaf margins. The flower has a fringed lip, fringed with bristles, which gives the flower a bearded look. This orchid flowers in summer. Its height is listed as between 4-20 inches. Acid soil of wet meadows is its home. It is a perennial.

The other native orchid, **calopogon**, called **grass pink**, (*Calopogon tuberosus*) also produces a pink flower with a beard as noted from its Latin name. Its pink is a vivid magenta-pink. Its beard has yellow tipped hairs. The yellow-crested lip is held uppermost in this orchid. The flowering stem produces a loose cluster of 2 to 10 flowers. The individual flowers are 1-1.5 inches across. Flowers are fragrant and open sequentially from the bottom upwards on the leafless stalk. The name “tuberosus” refers to this orchid’s underground stem. This orchid has a long, grass-like leaf growing between 4 to 20 inches tall. This native orchid is also found in wet acid soil, bogs, peat meadows and swamps blooming in summer.

In all my walks in our Watershed, I have only seen two native orchids, the showy orchis and the rattlesnake plantain. If you are aware of the rose-colored pogonia or the calopogon that are mentioned in this article from 1884, please let us know at [info@cookscreekpa.org](mailto:info@cookscreekpa.org). They would be a great find to add to a plant life time list.

Calopogon and Rose-Pogonia (next page) from <http://wildadirondacks.org>

(Continued to page 11)

*Continued from page 10)*



Calopogon

Rose-Pogonia



*(Continued on page 12)*

(Continued from page 11)

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mention the orchids of Bucks county. This famous family, prized by horticulturists, is well represented in our flora. We have twenty-one species, all of great interest, but some of especial grace and beauty. The showy orchis, found in rich woods throughout the county, has a large purple flower of great elegance. The purple fringed orchis of our bogs is one of our handsomest species, but quite rare. The rattlesnake plantain is more beautiful in its foliage than in its flowers. The elegant, white-veining of its leaves renders it unique among our plants. In our northern meadows the rose-colored pogonia is a superb plant, and in its chosen haunts gives its rosy hue to whole acres of meadow land. The queen of all our orchids however, is the stately calopogon. Only the peat-bogs of Springfield produce this lovely flower, but there it is sufficiently abundant, producing masses of purple bloom.

We have three *Cypripediums* or lady's slipper, two with yellow flowers, and one with a magnificent, large and beautifully mottled purple flower. All three are rare, but when careful search reveals them in their haunts, the time and labor spent in seeking them is not regretted. The construction of this flower is most curious and typifies well a strange and curious family. Bucks county, like all southeastern Pennsylvania, was originally a densely timbered country, and magnificent forests of hard wood, with a thin sprinkling of soft wood, or coniferous trees, covered its surface. These forests have now almost entirely disappeared. In fact, there has been so unwise and reckless a destruction of forest growth, that we are already reaping the disasters which such conditions entail. Our smaller streams are disappearing entirely and our larger ones are dwindling to mere brooks. Forest trees are the natural condensers of moisture on the largest scale, and in their absence, and with the sun's summer rays beating directly on stream sources, the gradual obliteration of our streams is just as natural and inevitable a result as that of any other phenomenon of nature. The denudation of forests on a large scale, as we now have it in the Eastern states, is the fruitful cause of our summer droughts with all their train of baleful consequences. It is high time, that by legislation or otherwise, this ruinous destruction was abated, and the forest replaced by wise and systematic effort. The older governments

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FLOWERING PLANTS, ETC., OF BUCKS COUNTY 169

of Europe, driven by hard necessity, have moved persistently and successfully in this direction; and no subject calls more loudly for well-directed efforts in this country. Although our forests have been so sadly decimated, the types of our forest growth have almost, if not quite, all remained to the present day. To this beautiful forest vegetation is largely owing the charms of that rural scenery for which Bucks county is famous, and which so closely attaches her sons and daughters to her soil.

Our forest flora consists of seventy-five species. All these attain the altitude of true tree growth, twenty feet and upwards. Some of these species are now very rare and many are becoming rarer every year. One of our grandest trees is the tulip poplar, belonging to the magnolia family. When in bloom nothing could be more beautiful. We have fourteen species of oaks; two, the shingle oak and the Spanish oak, are so rare as to be botanical curiosities; the others are sufficiently common to give feature to our landscapes and augment largely the value of our farms.

The walnut family, Juglandaceae, is represented by both the white and black walnut and by five species of hickory. In addition to the value of their timber, these trees yield, in the aggregate a large revenue from the sale of their fruit. The shellbark crop annually sent from this county to the markets of Philadelphia and New York is immense, and would seem incredible to one who has not given the subject attention.

Of the pine family, we have eight species, of which the pitch pine, hemlock, spruce, and red cedar, are the most abundant. The white pine is occasionally met with in isolated specimens, but I do not regard it as truly native. The juniper, found abundantly in some northern stations, is my beau-ideal of arboreal symmetry and beauty; its berries are collected for medical purposes.

Of birches, we have three kinds, sweet birch, white birch, and the black birch. All these trees are very beautiful, and what Bucks county child has not tasted the toothsome birch!

Our willows are fourteen, and our poplars three. This family which gives a special character to our bog and river scenery, is the most difficult problem the botanist has to unravel, and even in our best text-books the need of thorough revision is painfully apparent.

## Four Common Insects *By: Stephen H. Smith*

These four common insects were rendered in ink over graphite on vellum. Each original drawing is roughly five by ten inches. The drawings were done from specimens having died in late summer. Each was in nearly perfect condition except for the praying mantis.

I hope to expand this series considerably over the next year and to then produce a book illustrating the more common insects of the Cooks Creek Watershed.

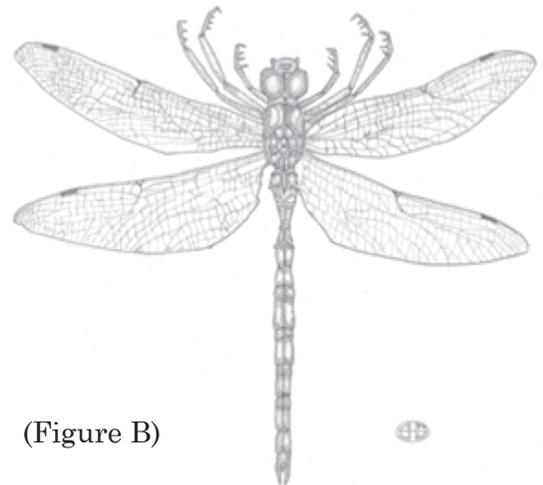
Praying mantis (*Mantis octospilota*) (Figure A)

Club-tailed dragonfly (*Gomphus vulgatissimus*) (Figure B)

Camel, Greenhouse, or Cave cricket (*family Rhaphidophoridae*) (Figure C)

Green Grasshopper (*Omocestus viridulus*) (Figure D)

(Figure A)

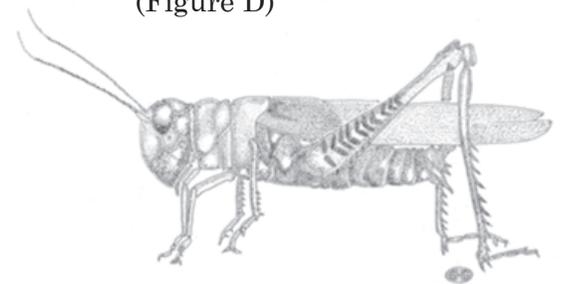


(Figure B)

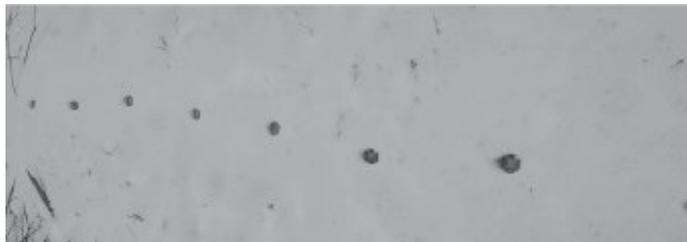
(Figure C)



(Figure D)



**Identify the tracks! Fox, squirrel, possum, or raccoon?**



# *Notice!*

**It's Annual Meeting Time again!**

*Not just another Board Meeting, the Annual Meeting is a chance to discuss our year, plan for next year, elect officers and recognize the hard work of our members.*

*This meeting is a requirement of our 501c3 status, but is also a great time to "put in your two cents" about what the CCWA does with YOUR money.*

**Make a difference, plan on attending!**

### ***Current Interesting Info...***



Ethan Scott helping to take samples at the creek in December



Durham Mill tail race cleaned of the invasive Norway Maple with a LDW&S grant along with DHS



Tiger Trout...new species of rare trout in Cooks Creek?

### **January 25th high water...**



***Check us out on the web for more information and articles from past brochures!***

***[www.cooks creekpa](http://www.cooks creekpa)***

## Recycle! Local Recycling Information

### Durham Township Recycling Center

Location: Municipal Building, 215 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: 8:00AM – 12:00 noon, 1:00PM-4:00PM, (call ahead)

Accepting newspapers, magazines, junk mail, phone books, glass, tin, plastic, aluminum and cardboard, and CFL bulbs, rechargeable batteries (during office hours).

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

Contact Dani McClanahan 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: 9AM to 5 PM, Saturday 9 AM to 4 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.

## 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  
**Open Space Committee:**  
1st Tuesday @ 7:30PM  
**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:

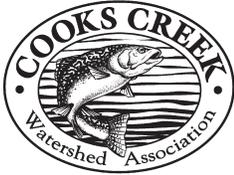
[www.williamstwp.org](http://www.williamstwp.org)  
610-258-6060  
655 Cider Press Road

**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



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](mailto:info@cooks creekpa.org)

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



Find us on Facebook

## 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 \_\_\_\_\_

Student Membership Fee: \$ 10.00 per year \_\_\_\_\_

Donation: to legal defense fund: \_\_\_\_\_

Total:

I wish my membership and donation to remain anonymous in our board minutes.  Check box.

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.