Cooks Current

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

Volume 19, Issue 2 Newsletter of the Cooks Creek Watershed **Spring 2022**

2022 Events

Regular Board Meetings:
Check website for details.

Springtown Fire House- 7:30PM
4th Thursday of the month except Nov. and Dec. which is the 3rd Thursday; Nov.17 (3rd Thursday), Dec.15 (3rd Thursday) May 26, June 23, July 28, Aug.25, Sept. 22, Oct. 27, Nov.17 (3rd Thursday), Dec.15 (3rd Thursday) **All are welcome! We appreciate your involvement.**

2022 Special Events:

June 18, Sat. of Father's Day weekend, **Mini Monster Mayhem,** 9:30am-Noon, The Douglas', 3450 Rt. 212, Springtown, PA,
Native Plant Workshop, May 14, "Pulling Garlic Mustard and Pesto", 11 - 1PM, 325 County line Rd. West, Durham,
Springfield Community Day - TBD, Oct. 1, first Sat. of Oct., **Fall Dinner,** 5pm-9pm, Springtown Rod & Gun Club,
Oct. 2, first Sunday of Oct., **Walk in Penn's Woods,** TBD,
Oct. 8, second Sat. of Oct., **Durham Community Day,** Noon-3pm, Durham Mill Green,
Nov 12, second Sat. of Nov., **Fall Clean-Up,** 9-Noon, meet at Old Philadelphia & Rt. 212 & Gallows Hill Rd

We're on the web!
www.cookscreekpa.org

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

See back for details!

From Across the Board…

We just had our Annual Meeting the other night and discussed our upcoming program for this fiscal year. Looks like most of our program will be back this year, providing the dreaded virus doesn't shut us all down again. By the time you see this we will have had our Roadside Cleanup and our Annual Plant Workshop, but there will be plenty more to choose from. Our Mini Monster Mayhem will be held on the Saturday before Father's Day (June 18) as usual. Please do come if for nothing else than to see all those engaged young faces and to play in the water with them.

Over the summer we hope to use our newly obtained grants from the Lehigh Community Foundation to install educational posters of the watershed that was prepared by local artists Keri and John Maxfield courtesy of the Watershed Coalition of the Lehigh Valley. We have indoor and outdoor installments planned for both Springfield and Durham. In addition, Steve Smith and I will start work on an ambitious set of drawings of invertebrates of Cooks Creek. Eventually this work will be published in a book or pamphlet version of a field guide with anecdotes from the Creature Features we've had over the years.

This fall we hope that Durham and Springfield host their Community Days again, so that we can get out and see our neighbors and share what we have been up to, but we have not yet heard if these events are happening or not. If you know anything, drop me a line! I have been invited to participate in the Fry's Run Festival again this year, where I will be showing participants all the cool creatures that live in their creek and talking about watersheds and water quality to anyone who will listen. Do come over and join us on September 17th at Fry's Run Park at the end of Coffeetown Rd. near Route 611.

Amazing what Jim Orben bagged on road side clean-up. A coyote replica! Nice work Jim!

We will have our Annual Fellowship Dinner this year at the Springtown Rod and Gun Club on Saturday Oct 1st. Some folks have suggested that we dispense with a speaker and just have a social time; let me know which you prefer by emailing me at info@cookscreekpa.org. Finally, the fall roadside cleanup on our section of Route 212 between Gallows Hill Rd. and Route 412 is scheduled on November 12th. We usually do this in the AM, and we will post it up. Let me know if you have a couple of hours to help us out.

Yours in Conservation,

W. Scott Douglas,

President

Pulling Garlic Mustard (Alliaria petiolate) and Pesto By: Maureen O'Brien and Lois Oleksa

Thanks to Sarah Snider for sharing her wonderful property and all those who helped.

On Saturday, May 14, 2022, Cooks Creek Watershed Association held a Workshop at a preserved property of one of our board members and we pulled and made pesto from the aggressive non-native herb in the mustard family.

Garlic Mustard has invaded many wooded areas, home owner woodlots, gardens and flower beds. What's the problem with it? Upon entering the forest understory, it is thought to be allelopathic that is, it can inhibit the growth of other plant species. Some researchers believe that these compounds can also hinder beneficial soil fungi (mycorrhizal fungi) which help tree roots take up water and nutrients. In experimental trials, the removal of garlic mustard led to increased diversity of annuals, tree seedlings and other plant species.

Garlic mustard is a biennial taking two years to mature and set seed. Its first year is spent as basal leaf clusters existing through the winter. The second year, it matures and produces flower stalks and seeds. The stalks with their seed pods called siliques hold viable seeds which can last for 4-6 years in the soil. Garlic mustard reproduces only by seeds and can be pulled anytime it is found as long as the soil is moist. To pull the plant, one needs to reach down to the ground level, grasp the white tap root which has an S-shaped curve and ease it out of the ground. Don't let it establish itself on your property; continue to remove for at least five years to eliminate the infestation. If the plant is already flowering, pull and bag and remove. If plants are just cut, they can re-sprout. There has been some work on biological controls using weevils and flea beetles which could feed on the plants making them less robust, having tip dieback and producing fewer flowers. We will wait to see what happens; meanwhile, keep pulling. This is one invasive that you can pull and make a difference in the landscape.

Garlic Mustard in bloom

The stalks can be eaten, steamed like asparagus; the seeds used like mustard seeds; and, the leaves gathered early in the season and combined with nuts, oil, and cheese make a fabulous PESTO. See the following recipe.

Pesto

¼ c. pinenuts, almonds, or walnuts

4-5 c. freshly picked, washed and destemmed garlic mustard leaves

1 c. freshly grated parmesan cheese

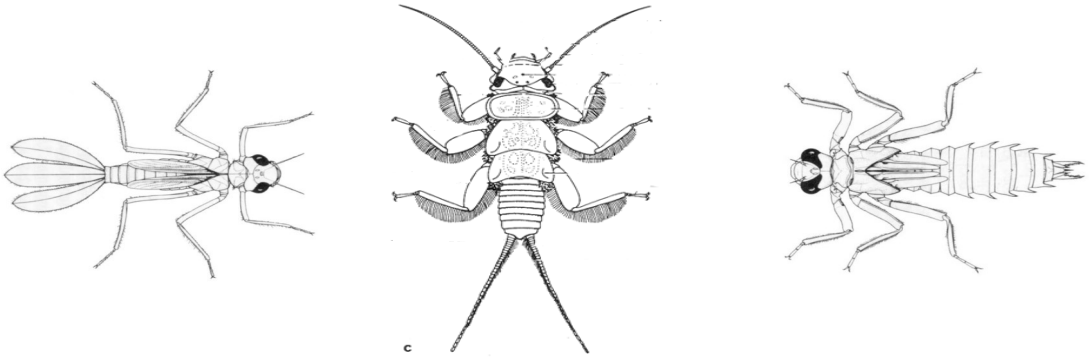
1/3-1/2 c. extra virgin olive oil

½ t. salt

Using a food processor. pulse the nuts several times until they resemble large crumbs. Add the garlic mustard leaves and parmesan cheese. Pulse until minced. Pulse and add oil slowly, then add salt. If the pesto is too thick, add more oil or some of the cooking water, if you're making pasta. Store in a container and even freeze. To use, let it come to room temperature. Enjoy with cooked pasta, meats and veggies.

20th Annual

Mini Monster Mayhem



Join us as we celebrate water, watersheds, and the amazing creatures which crawl in, on and under Cooks Creek. Our own Scott Douglas presents a fun-filled, kid-friendly program featuring dinosaurs, comets, mud, gummy worms, a toilet…and monsters!

Saturday June 18, 9:30am – 12:00 noon
At the Douglas', 3450 Rt. 212, Springtown

This event is free and open to the public

Bring your water shoes (or other suitable footgear),

We will be walking in the Creek!

Children under 12 ***must*** *be accompanied by an adult throughout the event.*

RSVP by June 15, (610) 346-1604

Botanical Focus: Trout Lily (*Erythronium americanum)* By: David Oleksa *This is the 23nd installment in a series of articles on the flora of the Cooks Creek Watershed.*

Trout Lily

I don't know how many of you enjoy exploring local woodlands in early spring, but it can be an exhilarating experience. Fresh air after a COVID-induced winter hibernation is especially welcome and to see new life spring from the earth causes a smile to come up on nearly everyone's face. One of the first things you'll note are rapidly sprouting skunk cabbages. These will soon be carpeting the moist areas of the woodlot.

However, if you look a little closer, especially in early to mid-April, you'll see a plant that is a sure harbinger of spring. The topic plant for this column is the Trout Lily (*Erythronium americanum).* As the Latin name clearly points out, this plant is a native and has established itself throughout North America. There are 27 varieties and most can be found in the eastern part of the continent. The varieties in the west often are taller, standing nearly two feet high. The arid conditions of the southwest preclude huge numbers of the trout lily to proliferate although some patches can be found.

Trout lilies can grow in huge colonies that can sometimes cover an entire forest floor. These large colonies may be hundreds of years old. The time that it takes to grow a colony this size is many generations. The reason for this long period is because of the inordinate amount of time it takes for a trout lily to mature. The bulbs are sterile for the first seven years and then it produces one leaf and no flower. When finally mature, the plant produces two leaves and one absolutely gorgeous yellow flower. The colony spreads mostly by runners but also by seed.

There is a symbiotic relationship between trout lilies and ants. The trout lily produces an appendage on its seeds that is rich in lipids. The ants are attracted by these and carry the seeds away and thus the plants get spread to new areas.

You may wonder how the plant got its common name, trout lily. The trout lily is easily recognized by its 2 to 3 ½ inch leaves which are a dull green in color and which are mottled with dark spots, making the leaves look somewhat like the speckled side of a trout. The trout lily is a spring ephemeral, meaning it is short-lived and then only in the spring time. It is also unusual in that it normally has no stem except when it flowers. The stem at that time serves only as a support structure for the flower and there is only one flower per plant. The flower has six petals and is hermaphroditic (both male and female organs are found in each flower). The plant itself grows to be 2 to 8 inches tall although as mentioned before, western varieties can grow to a height of 2 feet.

The plant is edible although some experts warn not to eat too much since it does have a reputation of being an emetic. This means that it will cause some people to vomit. However, there is generally no harm in adding a few leaves to a salad mix or eating a few leaves as a trail snack. The flowers have a slightly sweet taste and the corms can be eaten raw or toasted. When harvesting the leaves, take only one from a plant since it takes such a long time to mature. And be aware that the plant's small size will cause you to work really hard to harvest a substantial yield. For example, even an experienced forager will spend over an hour to collect one cup of the corms.

Being a spring ephemeral, you would think that there would be little interest to make the trout lily part of a garden. Surprisingly, even though their season is short, the flowers attract mining bees (*Andrena erythronii)* that pollinate some trees, ornamentals, shrubs and other spring bulbs. Trout lilies are also called adder's tongues, dog tooth violets, and fawn lilies.

The only medicinal use that I could find was that the Native Americans used the plant as a contraceptive. All in all, despite its short growing season, the plant will grab your attention with its delicate but brightly colored yellow blooms and the more you study these interesting plants, the more mesmerized you become by them.

Book Review: Saving Us, A Climate Scientist's Case for Hope and Healing in a Divided World By: Katharine Hayhoe

Review Written by Debbie Orben

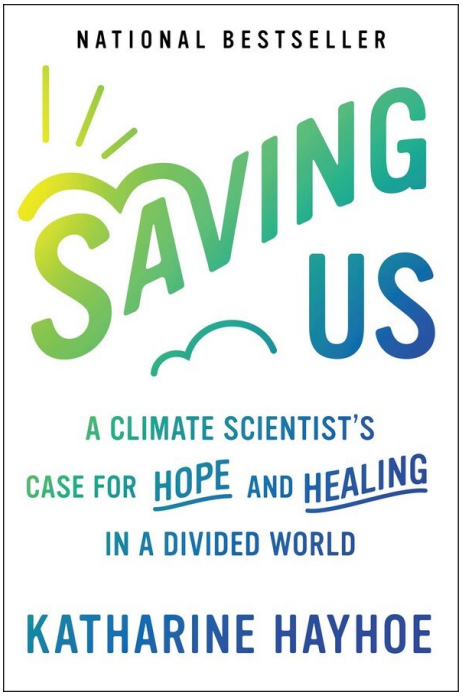


Image from simonandschusteter.com

Climate change impacts everything you care about, whether it's the health and welfare of your family, the rising costs of food and energy, the strength of our economy, the birds in your backyard, the plight of endangered species, or the Cooks Creek Watershed. That is the message Katharine Hayhoe shares in her book *Saving Us*, *A Climate Scientist's Case for Hope and Healing in a Divided World*. If you, like most of us, are someone who cares deeply and wants the planet to be a safe and sustainable home for life on earth, Katharine's book will give you both facts and hope. As both a devout Christian and distinguished climatologist Katharine has unique insights to share that will help us confront this often divisive and frightening topic.

According to Katharine, facts are not enough. Facts matter but they also produce unhelpful feelings of anger, denial, and guilt. Climate change is like a threat multiplier that affects our food security, ongoing humanitarian crises, natural disasters, and the economy. Katharine does not want her message to be one of fear but of possibilities. She is truly grateful for fossil fuels but knows that it is time to transition to cleaner energy.

Her main message is that, yes, climate change has negative impacts on our way of life but we have the power to do something about it. Fossil fuels are now heavily subsidized, but 43 countries have put a price on carbon and it has helped them to reduce their carbon footprints. Clean energy is growing and it is possible to move to a world of net-zero electricity. We all have a part to play in finding solutions for this seemingly overwhelming global problem.

More than 50% of adult Americans are alarmed or concerned about climate change and the same percentage feel helpless when they think about it. But we are not helpless and we can do much, in both big and small ways. Katharine says the most important thing we can do is talk about climate change with our families, friends, and neighbors. Talk about how it is affecting the weather in our communities, the wildlife we observe, and real-life practical and viable solutions.

Read Katharine's book, check out some of her inspiring YouTube videos, or visit citizensclimatelobby.org to learn more. Here are some of my thoughts. Even small steps can have an impact. The solar panels on our roof produce clean energy. Our plug in Prius saves us money on gas. Our garden gifts us with fresh organic produce in summer and frozen food in winter. Native trees and wildflowers provide food and shelter for birds of all sizes, from pileated woodpeckers to hummingbirds.

You do not have to purchase solar panels or an electric car to make a difference. You can think about your energy use and reduce your carbon footprint in many different ways, such as increasing the insulation of your house, purchasing wind energy, or driving less. You can become an advocate for laws and initiatives that increase energy efficiency and reduce our dependence on fossil fuels. Whatever you do, you will know that as a human on our planet, you are not helpless but contributing to a cleaner, greener, and safer world for our children.

Creature Feature: Weasels

By: W. Scott Douglas

Long Tailed Weasel

This is the 60th in a series on the fauna of the Cooks Creek Watershed.

My neighbor came to me recently with a horrific tale of bloodshed in her chicken house. She had come to feed the birds and found a half dozen of them dead and torn apart in a scene reminiscent of a 1980's slasher film. It did not appear that any of the birds had been eaten, but a couple of them were unaccounted for. "I hope they just got away. What or who would have done this?", she asked. "Was it raccoons?" I did not even have to investigate to know that this was clearly the work of a weasel. Maybe a pair. There's a reason why we consider it an insult to call someone a "weasel". Weasels are the only predator that will actually kill for the sheer pleasure of doing so (other than man, of course). Some people call them "stoats". You may recall that stoats were the evil gang-bangers of the children's classic story, "Wind in the Willows". I told her my suspicions and explained to her that there was nothing she could have done to prevent the slaughter, and that weasels are very hard to keep out once they figure out how to get in. Her only preventative measure would be to trap and relocate them.

Weasels are in the same family as mink, fisher and martins, the Mustelidae. We have two species of weasel in the watershed; the long-tailed weasel (*Mustela frenata*) and the short-tailed weasel, or ermine (*Mustela ermine*). Both are relatively small, elongated mammals with brown fur and white throats and underbellies. The only real way to tell them apart is size and length of tail. The long-tailed weasel ranges in size from 12-17 inches with a 6-inch tail and the short-tailed weasel is smaller, about 8-12 inches with a 3-inch tail. If you get a good enough look, you might notice that the ermine has white feet. However, it's unlikely you will get a long look at a weasel as they are active to the point of frenetic. Sometimes if you make a noise they will get up on their hind feet and stare at you for a few minutes. Another good reason people don't see them is that they are primarily nocturnal. However, when food is scarce, they will hunt during the day.

Ermine

Weasels make their dens either under rocks or tree stumps, old buildings, or use abandoned burrows of other animals, like chipmunks. They

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prefer dense undergrowth and swampy or riparian zones, so the watershed has abundant good habitat for them. I have never seen a weasel on my property, but have seen plenty of sign, both scat and footprints, so I know they are around. Both species prey on rodents and other small mammals, birds, snakes, frogs, bats, earthworms and insects. They are capable of killing and eating animals much larger than themselves, as my neighbor can testify. The reason for the abundant energy and bloodlust is that they must eat a third of their weight every day, so they are constantly looking for their next meal. In turn, they are preyed upon by man, dogs, coyotes, foxes and raptors.

Both species have their young in the springtime, and breed in late summer. The female has the ability to hold the fertilized egg for months, explaining the long gestation period. Litters are of 4-9 kits and they are born blind and hairless. In 4-5 weeks, they are moving around well and play like kittens. Unlike many mammals, and contrary to their evil reputation, weasels share the parenting duties and are, by all accounts, very good parents. Weasels sometimes mate for life, but not exclusively. One other cool thing about both of these animals is that their coats often turn white in the winter to help them blend in with the snow. This phenomenon is more common further north, but can happen here in Pennsylvania. I cannot give you advice on how to see a weasel, I've only seen one once, it's more a matter of luck than skill. If you do find yourself needing to trap them away from your chickens or barn, make sure to take them a good ten miles away, or they'll come right back.

Credit for images: Alfred J. Godin, 1977. *Wild Mammals of New England.* Johns Hopkins University Press, Baltimore, MD.

Become a member and continue working for our environment.

Renew Your Membership for 2022

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!

This could be your chance to help with our local environment and your home area!

Find the membership form on the back page.

A colorful sticker on your newsletter indicates your membership has now expired.

You can check out more information on the web: www.cookscreekpa.org

Children's Backyard: Bone Before Plastic

By: Lois Oleksa

What are bones? What's their function? Bones are like scaffolding that holds a body together. They are of many shapes and sizes. Bones support the body structurally and protect our organs. They allow us to move. Inside of bones is bone marrow, where the blood cells are created. This inside is similar to honeycomb, making them rigid yet relatively light in weight. Bones store minerals, particularly calcium.

Bone and antler, but we will concern ourselves with bone, were used before there were plastics. Bone objects have survived, being discovered by archaeologists, partly because they were widely used. In an agrarian society, most of the bone used came from horses, cattle, sheep and pigs. Moose and caribou bone were used here in Northern North America. Whalebone, from hunted whales or those washed to shore, yielded large sized bones that could be used for large projects. And, once local, Lenape fashioned tools and toys as well as sewing needles from deer bones.

Tools from bones: Although most tools today are made from steel, they have plastic and fiberglass handles and various parts. Indigenous people around the world and of many cultures such as the Anglo-Saxons and Vikings used tools made from bones, antlers and stone. Bone ended up as handles for knives, awls, and knapping tools. Larger bones like the scapula from deer or bison were sometimes used as hoes or shovels. Deer lower jaws were fashioned into sickles for cutting grass and perhaps harvesting corn. Grass was used as roof thatching. A bone shaft wrench was believed to be used for straightening arrow wood shafts. The shaft wrench was a whole bone with a hole for the arrow shaft. The bone wrench served as a handle while shaping the arrow or straightening it with pressure and or heat. Knives were made from splintering a deer bone but their use was limited to puncturing. Bone tools for making and working with cloth or deer skin involved bone needles, weaving shuttles, awls, scrappers and fleshers. Fish hooks are one of the most collected of all bone artifacts. Fish hooks were made by splitting the foreleg bone of a deer, and carving the hook. For hair there were hair pins made of bone looking like those of today made of plastic. These combs were also used in making designs on pottery.

In dress Native American people made chokers from animal bone. These chokers were used as a beautiful piece of art work showing creativity and tribal standing but they were also used as a way to protect the neck and jugular from enemy attacks in war. Some tribes also wore a full breastplate made from animal bone when engaging in war. Look for real "American Indian Made" bone chokers that come with a "Certificate of Authenticity" on Etsy.

The oldest known instruments were also made of bone. The flute, made from bird bones which are naturally hollow, was played like the recorder of plastic you may play today. Holes would have been drilled in a turkey bone and played by blowing across the opening. With one opening a whistle was made to call game birds. A bone rasp was played by rubbing a stick or bone along the etched lines in the bone rasp.

The first bone industry that developed was buttons. When buttons began to be mass produced, they were made of bone. In Konstanz, Germany, 300,000 bone strips were found with holes which were the buttons that had been drilled out of the bone. Buttons were now being used to make more form fitted clothes. Today buttons are made of plastic and have even been replaced by nylon zippers and Velcro fasteners again made of plastics. Buttons had started out as just decorative ornaments. They were poked through the fabric of a garment being used as a pin. Only the wealthy during the Middle Ages were allowed to wear them. With the Industrial Revolution, buttons could be mass produced and the masses could use them instead of just lacing together their garments with strings and buckles.

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Bone carvings were also found on ornate hexagonal or rectangular boxes. European royalty and Northern Italian nobility had a desire for ivory being sourced from elephants but many could not afford it so a Florentine merchant, Baldassare Embriachi, began making carved relief images from horse or oxen bones. These were large panels probably from the cannon bones that showed scenes from mythology, medieval romance, or the Bible. On the boxes the bone carvings were surrounded with wood and horn inlays. There is an altarpiece at the Metropolitan Museum that measures 50x60 inches all made of bone by this carver of bone. What is a cannon bone, you may ask? The cannon bone is named for its tube-like structure. It is a bone that animals such as horses, cattle along with deer, goats, and sheep have as they walk on their tiptoes.

Bones are utilized even today. As food, the marrow inside a bone is eaten and using bones with marrow makes a great bone broth so popular today. Marrow is called "meat butter". After cooking a chicken carcass to make soup, try eating the rib bones. Being soft and chewable, they should easily snap; chew them well before swallowing. You can get nutrients from the bones as well as the broth/soup. Of course, the pets also enjoy bones. Just be careful of bone fragments that can cause trouble for the digestive tract, yours or your pets. Gelatin, from bones, is used to thicken liquids and in making gelatin/Jell-O. The nutrients found in bone, calcium and phosphorus, are also used as fertilizer in gardens. The bones are collected and ground, called bone meal, to mainly scatter on gardens. Bone meal is also edible and can be added to smoothies. Today, cow bones are gathered but before the 1900s, buffalo bones were used. You may have read of the atrocities against the buffalos as they were shot by the thousands for their hides. The remainder of the buffalo carcasses were left behind and huge piles of bone were later collected and sent to factories grinding them for fertilizer. Google "old west piles of buffalo bones" to see piles of buffalo bones.

Children's Backyard Activity: Examining Animal Bones and Making Bone Jewelry

Let nature take care of the dead animals. Most animals and their skeletons, if left in place, will be pecked at, ripped apart, rot, or even be eaten, even the skeletal bones. Bones that remain after death can tell a story about the animal's life: how old was the animal, did it have a disease, was it injured. And, bones left in place can become fossilized and we can then see life as it was a long, long time ago. Studying bones is about nature and learning about animals. If you're out in the woods you may come upon bones. There are mammal and bird bone identifying books available and charts on the internet. One of interest may be the "Key-guide to Mammal Skulls and Lower Jaws" by Aryan I. Roest.

Bone Jewelry

Bone is one of the oldest materials for making jewelry. Pick only bones that have been cleaned naturally. Vertebra are like ready-made beads. Make a simple pendant or necklace by stringing the vertebra along with beads, if desired, onto a leather cord or, wrap wire on both ends of a jaw bone and attach a cord.

Invertebrate Reference Manual of Cooks Creek and its Tributaries

By: Steve Smith

One of the most precise ways to measure the overall health of a stream is to investigate the population of the invertebrate species living in the water in terms of overall numbers as well as diversity. Scott Douglas, president of Cooks Creek Watershed Association for more than twenty years, is an expert in sampling the invertebrates and has been running a program for young people over the years to familiarize them with this important aspect of stream ecology. Out of this annual event arose the concept of a refence manual for identifying invertebrates based on actual specimens from Cooks Creek and its tributaries.

This project will encompass both a digital and print version of line drawings of each of the organisms collected, along with a brief description of its natural history as well as the location and date of collection.

In order to make high quality line drawings of the invertebrates for the reference manual, it will be necessary to take a photograph of each specimen to be included, using a stereo-zoom microscope. Thanks partially to a grant obtained from the Upper Bucks Community Fund, a fund affiliate of the Lehigh Valley Community Foundation, a Canon mirrorless camera was purchased for the Cooks Creek Watershed Association for use with the microscope. The camera will be interfaced with a special software program, *Helicon Focus*, on a laptop computer in order to "stack" the numerous images taken of each specimen at progressive levels of focus. The "stacking" feature is necessary as any specimen that has depth will be in focus in only a very limited plane owing to the optical properties of magnification. Therefore, multiple images of each specimen at varying levels of focus will be taken and then "stacked" by the computer program to produce a single image with all features appearing to be in focus.

Another feature of the system is that the camera shutter can be actuated by clicking the appropriate icon on the *Helicon* program on the laptop, rather than manually on the camera, thereby eliminating the vibration that would occur with a manual mechanical shutter release. The *Helicon* program is very sophisticated and allows manipulation of the images in many ways in addition to showing the optimal levels of focus as multiple shots are taken.

It is yet to be determined precisely how many specimens will be included in the reference manual. The line drawings will be made next Winter by the author of this article and it is our intention to have the first edition of the **Reference Manual of Invertebrates of Cooks Creek and its Tributaries** ready for publication by late February of 2023. The reference manual will allow comparisons of the invertebrate population of 2022 with that studied in future years, thereby serving as a gauge for overall stream health and possibly permitting remedial action(s) if necessary.

Green Tip #54: GMO is Out, "Bioengineered" is In

For those of you concerned with genetically modified organisms (GMOs) i.e., food, the U.S. Department of Agriculture ruled that food labeling as of January 1, 2022, must meet the new rules of the National Bioengineered Food Disclosure Standard (NBFDS). This label deals with food that has been genetically modified in a way that isn't possible through natural growth. Many world countries require genetically modified foods to be labeled and now GMO labeling in the United States will be required. The new directive is to standardize the various state policies. Starting back in 2016, a law was signed banning state GMO labeling laws and empowering the USDA to issue federal labeling rules, which it did in 2018. The rules now going into effect will require packaging to be labeled "bioengineered", and include a phone number or QR code which consumers can use to access more detailed information. The standard mandates the use of the term "bioengineered" instead of "GMO" in disclosures. It also allows a 5% ingredient threshold for GMO contamination. The European Union uses a 0.9% threshold. The National law applies to most food manufactures and importers in the U.S. There is an exemption for those generating less than $2.5 million in annual sales.

Here's the confusion with the non-GMO, GMO/bioengineered and organic issue. Organic is always non-GMO, but non-GMO is not necessarily organic. The non-GMO label has appealed to consumers, thinking the product is "cleaner". But, the presence of genetically modified ingredients will require a bioengineered disclosure. However, products derived from bioengineered ingredients do not have to be labeled if their process leaves no remaining DNA. This would apply to most sodas and cooking oils. And, another conundrum, honey which is embraced as a natural sweetener and a non-GMO food, because honeybees are not genetically modified, comes from nectar of plants of which the pollen grains may be genetically modified. However, the amount of pollen in honey is well below the threshold established, which would allow it to pass as non-GMO or not bioengineered.

Sound confusing? The Center for Food Safety has filed a lawsuit against the USDA challenging these new rules, especially the use of the term "bioengineered", which the lawsuit argues will be confusing to shoppers. The Center for Food Safety says these regulations will allow corporations to hide their use of genetically engineered ingredients from customers. The U.S. Food and Drug Administration says eating bioengineered foods poses no health risks.

The butterfly label if a product does not have genetic modification.

Products that are modified must state that they are modified somewhere on the label.

New label for products that have been genetically modified.

Back to the Past: River Boulders or Cobblestones Used for Paving

By James H. Fitzgerald, Mechanics Valley, PA.

(Doylestown Meeting, January 15, 1927

This is the title of a paper from the B.F. Fackenthal Collection.

A column highlighting the natural history of the Watershed.

Our Cooks Creek, at its mouth, drains into the Delaware River. The Delaware River Watershed is made up of all the streams draining into it. The Delaware River Watershed is our "Mother Watershed".

River Boulders or Cobblestones Used for Paving is the title of a paper read at the Doylestown Meeting of the Bucks County Historical Society. In it the author relates the gathering and shipping of cobblestones to be used in paving streets in the years of 1875 to 1885.

"A large number of men and boys found profitable employment in taking these rounded stones from the bed of the Delaware River, and from certain fields in the valley of the Delaware, all of which were washed down the valley from the great northern ice glacier." Philadelphia was the principal market; Trenton utilized the cobblestones, but Bucks County used very little except to pave stable-yards and gutters. Benjamin Franklin advocated for the "paving, lighting and cleaning of the streets" in Philadelphia. In the year 1762, an act was passed in Philadelphia regulating the pitching, paving and cleansing of the streets. The streets were prepped first by grading and giving them a coat of gravel or ashes to a depth of several inches. "The paver placed the cobblestones on end, using a tool with a short handle resembling a pick with a poll. When necessary some of the gravel was picked from the bed in placing the larger stone so that the surface would be even. The paver gave the stone a sharp rap with the poll end of the tool. A generous quantity of gravel or sand was spread and raked over this surface in order to fill the interstices. The cobblestones were then rammed tight into place. The tool used was of oak or hickory about four and a half feet in height and from four to six inches in diameter with an iron band near the bottom. There were two handles. One was inserted at a point near the center at right angle; the other was on the top and vertical. The standard weight of this tool was fifty-five pounds."

PAVER'S RAMMER

These cobblestones were shipped from points in Bucks County after the canal had been constructed.

"During the summer months when the river was low, and

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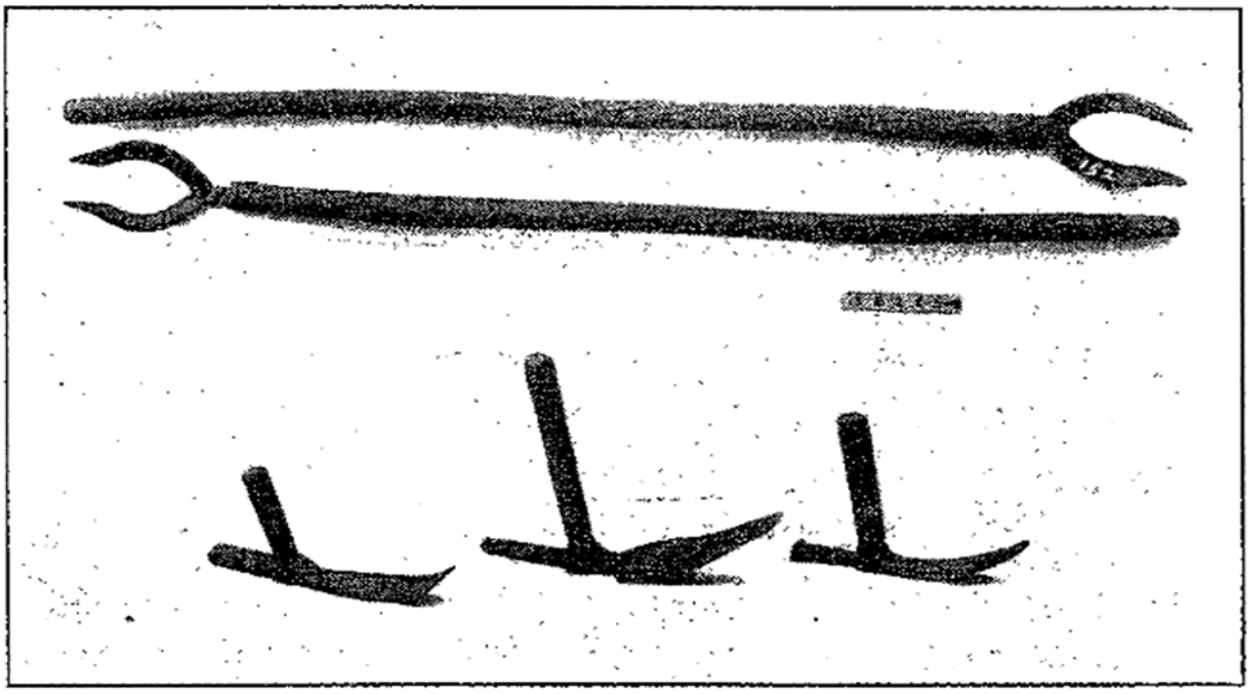
(Continued from page 12)

the water warm, flat boats from twelve to eighteen feet in length were anchored in shoal water. The pickers stood on the river bottom and used a long-handled fork, made for the purpose, tossed the cobbles into the boat. A grapple was sometimes used, especially when the stones were heavy. When the boat was laden it was propelled with the use of poles to the shore and unloaded. "Boothers," meaning boulders, was a local name given to these cobblestones. On bills-of-lading, however, they were called "pavers"."

"From the banks of the river the cobblestones were hauled to the canal bank on carts and wagons where they were loaded on canal boats."

Mules and oxen did the hauling and they were run by locals one of which resided in Upper Black Eddy, PA. There were also local shippers on the canal one located in Raubsville, sending eight boats a week to Philadelphia, and one in Riegelsville that shipped three boats loaded with cobblestones weekly. Cobblestones picked from the land also occurred in our area. Owners of land are listed and one owner was from nearby Bridgeton. Shipment of the cobblestones was made from nearly all points on the Delaware Division of the Canal.

More information is given about the streets paved in Philadelphia, their funding, cost of paving, the Pavers and Rammers Union of America and miles paved.



UPPER—Forks for grappling boulders from bed of river.

LOWER—Paving tools used for setting paving blocks in streets.

Pictures by Lois Oleksa

Current Matters

March 12, 2022, spring snowfall along Cooks Creek covering the hay field.

Grow wood poppies NOT greater or lesser celendine for a spring flower.

April 2022, Adopt a Highway cleaned up garbage collected by CCWA. Everything looks cleaner and great chili was served!

Bright Orange Jelly mushroom (Dacrymyces palmatus) called witches butter is edible. Easy to identify and available year-round. Neat curiosity, but doesn't taste like much.

Schedules of Local Government Meetings

Springfield Township:
www.springfieldbucks.org
610-346-6700
2320 Township Road

Supervisors: 4th Tuesday @ 7:30 PM
Planning Commission: 1st Wed. @ 7 PM
Environmental Advisory Council:
2nd Thurs. @ 7:30 PM
Open Space Committee:
As required
Historic Commission:
2nd Wed.@ 7:00 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 Tues. @ 7:30 PM

Lower Saucon:
www.lowersaucontownship.org
610-865-3291
3700 Old Philadelphia Pike

Council: 1st and 3rd Wed. @ 7 PM
Planning Commission:
4thThurs. @ 7 PM
EAC: 2nd Tues. @ 7 PM

Williams Township:
www.williamstwp.org
610-258-6060
655 Cider Press Road

Supervisors: 2nd Wed. @ 7 PM
Planning Commission: 3rd Wed. @ 7 PM
Land Preservation Board:
4th Tues. @ 7 PM

Richland Township:
www.richlandtownship.org
215-536-4066
1328 California Road

Supervisors: 2nd Mon. @ 7 PM
Planning Commission: 3rd Tues. @ 7 PM
Preservation Board: 2nd Wed. @ 7 PM

Recycle!

Local Information

Durham Township Recycling Center

Durham no longer has recycling. Check out Bethlehem or, paper and cardboard recycling at the Southern Lehigh Public Library. Also, check with your local trash hauler who may offer a recycling program.

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

Springfield Township

Cloth/clothes only at Springfield Fire company.

Springfield no longer has recycling. Check out Bethlehem or, paper and cardboard recycling at the Southern Lehigh Public Library. Also, check with your local trash hauler who may offer a recycling program.
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: Tuesday–Saturday: 10AM to 4PM, Sunday and Monday: Closed.

Open to the public.

Accepting glass, cans, plastics, newspapers, all books, magazines, catalogs, cardboard, mixed office paper, metals, textiles (clothing, shoes, etc.), large appliances (only those not using Freon). Call or go to the web site for specifics.

Cooks Creek Watershed Association
P.O. Box 45
Springtown, PA 18081
www.cookscreekpa.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@cookscreekpa.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.