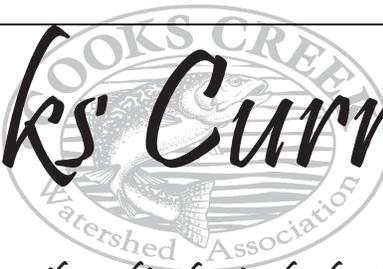


Cooks Current



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

Volume 16, Issue 2

Newsletter of the Cooks Creek Watershed

Spring 2019

2019 Events

Regular Board Meetings:

Springtown Fire House- 7:30PM

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

Special Events

June 15, Mini Monster Mayhem, 9:30am-Noon, The Douglas', 3450 Rt. 212, Springtown, PA;

July 27, Reforestation Workshop 11: to 4:00 See inside flyer

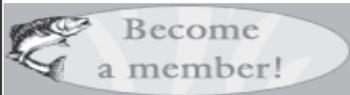
Springfield Community Day - TBD;

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

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

Board Members:

President: W. Scott Douglas

Vice President:

Treasurer: Jim Orben

Communications Director/
Recording Secretary/Editor:
Lois Oleksa

Marketing and Public Relations: Lois Oleksa

Layout & Graphic Design:
Ellie Scheitrum

Additional Members:

Sarah Snider, Stephen Smith, MD,

From Across the Board...

Yet another year has rolled by us and our 2018/2019 annual report is being finalized. I want to thank each of you for your continued support of our Association and the efforts to maintain our Creek and the quality of life in our great community. This month we will celebrate the life of the late Hans Reimann at Peppermint Park in Springfield. If you knew Hans and want to participate, the ceremony and bench dedication will start at 6pm on Wednesday, May 22, 2019.

I want to thank everyone who participated in our annual roadside cleanup in April! Although the turnout was only a few dozen folks, we managed to clean up 13 roadways and filled 143 bags. Thanks again to Springfield Fire Company for giving us a place to stage our effort, for Springfield Township for helping collect the garbage, and to PennDOT for providing the supplies and trucks to haul it all away.



Our faithful president tossing trash bags into the PennDOT trucks on Clean-Up Day

Thanks to Lois Oleksa, Joe Mihok and myself, there are now a few dozen new trees and bushes planted at the riparian buffer area along Silver Creek at the Springtown Firehouse. We had to get up with the sun early on a Saturday morning to plant, but it went smoothly enough. The previous plantings are coming along, but the high water earlier in the year had taken some more of the bank and along with it the new plants and bushes in

that area, but we hope these new additions will add some more stabilization for next winter. Speaking of trees, we are planning a native tree reforestation workshop to be held at 969 Spring Hill Rd., Riegelsville, PA and Riegelsville Borough Hall, Church Rd., Riegelsville, PA on Saturday, July 27. We will post the event on Facebook and the website. Check out the enclosed flyer.

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It appears that we will finally have Bald Eagles nesting in the Watershed again! A pair is working on a nest in Durham right on the banks of the Creek. If they settle in, we will post up some pictures. For obvious reasons, we don't want to publish the exact location, but keep your eyes open! For another nature sighting, the bats are coming out of hibernation; learn more about these fuzzy bug eaters inside this issue.

Thanks to the efforts of the Durham Historical Society (David Oleksa and Stephen Willey), and the generosity of the Lower Delaware Wild and Scenic River Management Council, we will be able to continue to improve the conditions at the Durham Mill tailrace. Another grant was awarded to us last month which will allow us to plant some native perennials and grasses.

Finally, if you have never attended one of our Mini-Monster Mayhems, another one is coming up on June 15. Join us for a morning of educational fun as I lead you through an interactive workshop on watersheds, water quality and benthic invertebrates at my property in Springtown. For young and old alike there's something for everyone to learn and smile about, especially if you like gummy worms!

Yours in conservation,

W. Scott Douglas, President



*** Botanical Focus: Flowering Dogwood (*Cornus florida*) ***

* *By: David Oleksa This is the 11th installment in a series of articles on the flora of the Cooks Creek Watershed.* *

* The flowering dogwood is one of the most popular trees in the country. In a survey sponsored by the Arbor Day Foundation to determine America's national tree, the dogwood came in third place just behind the oak and redwood. One reason for its popularity is that it is an attractive showpiece in all four seasons and that it is a native tree growing abundantly in the eastern half of the United States as well as northern Mexico. *

* There are many types of dogwood ranging from shrub like specimens to tall single trunked trees. *Cornus florida*, the flowering dogwood is one of the latter types, growing well in Zones 5-9 and attaining a height of 15 to 30 feet. It is a fast growing tree with a growth rate of nearly one foot per year and often achieving full maturity in ten years or less. It is probably best known for its showy flowers in late spring but its beautiful foliage seen in summer, its gorgeous red berries in the fall and its unusual scaly bark and horizontal branches best viewed in winter make it an all season show stopper. *

* Both George Washington and Thomas Jefferson realized the dogwood's potential and planted many of them at both Mount Vernon and Monticello. Because of their interest, Virginia lawmakers established the tree as the state flower in 1918. Another historical bit of interest is how the tree got its name. Records show that in 1548 the plant began to be referred to as "dogtree" a derivative of its old name "dagwood". The term dagwood had been used because the tree's hard slender stems were used in the manufacturing of daggers and arrows. In 1614 the tree was first named "dogwood". Chaucer called the tree a "whippletree" which is a term for the drag pole of a horse drawn cart since the tree was *

(Continue on page 3)





(Continued from page 2)

used in the manufacture of that implement. Whatever term is used for the tree, none can detract from its beauty and its popularity.

More than three dozen species of birds gorge themselves on the bright red berries that show themselves in the fall and the horizontal branches are especially sought out by robins, sparrows and mockingbirds as ideal places on which to build nests.

In the wild the dogwood is an understory tree since it grows best in filtered sunlight. You may often find it as a companion tree to tulip poplars which effectively use the sun and allow just the right amount to assist the dogwood to grow. Since the tree has relatively shallow roots there is a danger of it drying out but conversely it does not do well in overly wet soil either. For those individuals who decide to plant a dogwood it is an easy tree to take care of since it needs minimal pruning and that consists mainly of removing dead branches in the winter months. Here in the Cooks Creek Watershed area a major problem with dogwood is the fact that deer find the saplings extremely tasty so care has to be taken to protect the trees when they are young.

Cornus florida was used by the native Americans in many ways as a medicine or tonic. Since the bark is very high in tannins a tea made from it was used as a substitute for quinine in the treatment of malaria. The bark was also used as a poultice to soothe external ulcers and wounds and the glycoside “cornin” has strong astringent properties. A compound infusion of the roots and the bark was used to treat childhood maladies such as measles and worms.

There are many legends concerning the dogwood. The most popular is that the cross on which Christ was crucified was made of dogwood. (The tree evidently grew much larger in those days). God decreed that from that time forth the tree would not grow large enough to be able to be used to construct a cross. The flowers consist of four petals again representing the cross and each petal is edged with a rust-colored notch representing the blood and wounds of the crucifixion. In addition in the center of each flower is a green cluster symbolic of Jesus’ crown of thorns. Interestingly enough none of these legends are found in the area of the world where the crucifixion took place and history indicates that the legends were created here in the New World. But it does make for an interesting story.



Children's Backyard: Eggs, mostly Bird Eggs

By: Lois Oleksa

Spring makes us think of egg-laying in wild birds. While many birds do breed and lay eggs in spring, there are some birds that begin laying eggs in winter and some in late summer. And it's not only birds that lay eggs. Slugs, insects, spiders and amphibians also lay eggs. Fish and reptiles mostly lay eggs. And two mammals also lay eggs - the echidna and platypus.

Number of eggs – When birds lay eggs in one nest, the group of eggs in the nest is a clutch or set. The number of eggs laid is determined by the species of bird. A crow may lay 3-8 eggs, commonly 4-6, while the common bobwhite can lay up to 20. Yet the females of a species do not always lay the same number of eggs per clutch. Robins usually lay 4 eggs in the first set of eggs and they will also have another set of eggs; 3 in the second. These birds and many others have multiple broods in each season. In most species, one egg is laid daily until the clutch is complete. But this also varies as some lay every other day and occasional lapses occur. Domestic chickens can continue to lay eggs as long as the eggs are removed after being laid. This is indeterminate laying. Other birds are determinate layers, meaning if part of the clutch is removed, they will continue to incubate the remaining egg(s) without rebuilding the clutch.

Size of eggs – In the study of eggs, called oology, the sizes of eggs are measured in millimeters. In listing the size, the length is first; the greatest width is next. To measure eggs, rulers don't work; calipers are used. Birds' eggs can be small, av. 12.9 x 8.5 mm for a ruby-throated Hummingbird but insect eggs can be so small that a microscope is necessary to see them. The largest egg size from a living bird, belongs to the ostrich. They av. 180 x 140 mm. They are so big one ostrich egg could feed 10 people – equal to 2 dozen chicken eggs.

Shape of eggs – Bird eggs come in various shapes: spherical, elliptical, cylindrical, oval, short and long oval, pyriform, short and long pyriform. Each bird has a varying egg shape, and the shape of the eggs may even vary in the same clutch. An egg that is pyriform will not roll off a ledge; if bumped, it will spin in a circle. Pyriform eggs can also be gathered to fit a compact clutch. The variety of shapes has puzzled biologists but just recently scientists seem to have found an answer. In 2017, scientists found one of the best predictors of egg shape is flight ability; strong fliers tend to lay long or pointy eggs. A computer program, called "Eggxtractor" classified eggs bases on their ellipticity and asymmetry. What they found is that the egg shape was related to the measurement of wing shape, i.e. its flight ability. The great fliers have asymmetric eggs or elliptical eggs. Owls who stay close to home, have short, low-powered glides in flight and have almost spherical eggs.

Eggshells – Birds lay eggs with hard shells; animals like frogs lay eggs with no shell at all. Their eggs are in a jelly mass. Many snakes lay eggs with soft, leathery shells. The brown widow spider has a silk egg sac containing more than 200 eggs. Certain turtles and insects lay hard-shelled eggs like birds. Eggs with hard-shells protect the eggs from getting smashed, drying out, and getting infected with germs. The shells contain calcium, which is a source of nutrition. Although the eggshell is described as being hard-shelled, it is not a solid structure; it has tiny holes (pores) that allow gasses to pass through the egg reaching the growing embryo. The texture of the surface of the eggshell varies greatly. Most eggshells are smooth to the touch, but some are rough; many raptor eggs are rough. Some eggshells are glossy – woodpecker eggs – others may be chalky. Some eggs that are dull when laid get glossy from constant contact with the incubating bird's body.

Egg color and markings – There is great variation in background color and markings on eggs. However, the primary color of bird eggs is white. Markings can be blotched, spotted, dotted, splashed, scrawled, streaked, marbled, wreathed, capped, and overlaid. In many bird eggs the markings are heaviest around the large end. The pigment is added to the egg as it comes through the oviduct. The large end of the egg comes first and picks up the greater supply of the pigment. Heavy pigmentation is on eggs found in open nests as it camouflages and protects the eggs from predators. Coloration may also protect the embryo from the intense sun.

Formation of eggs – Eggs begin formation in the ovary. What is unusual is that birds (Continued on page 5)

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have only one functioning ovary – the left ovary. The loss of the right ovary is thought to be related to flight – less weight, giving them the ability to fly. Very young birds already have oocytes, cells that develop into eggs, in their ovary. Only some of these oocytes will develop into eggs while the others are reabsorbed. When day length gets longer, as in the springtime, the reproductive system of both females and males increases. When estrogen increases, ovulation occurs; this is the rupturing of an ovum (yolk) from the ovary. It descends down the oviduct taking 24 hours for the yolk to accumulate albumen (egg white) and a shell. **See the drawing of an oviduct to understand the process of an egg formation.** The ovum is fertilized by the sperm just after it enters the cup-shaped infundibulum. Next, in the magnum, for 3 hours, in the longest section of the oviduct, most of the albumen is added. Albumen is the white of an egg and it is 88% water, 10% amino acids, and trace amounts of minerals. The purpose of the albumen is to keep the embryo from drying out and cushion the yolk. Next is the isthmus where the egg gets the inner and outer shell membranes. Then next, at the uterus, the egg gets its outer hard shell. The egg is in the uterus for 21 hours. While in the uterus the color and markings are added by the pigment glands. The motion of the egg in the uterus seems to determine the color pattern. Also, the widest part of the egg gets the highest concentration of pigment.

Laying an egg – While most birds are asleep at night the shell is forming on the egg. Early in the morning then the egg is laid. Once the egg is fully formed laying takes place with the widest part of the egg emerging first.

The egg is a wonderful package awaiting incubation and hatching. A replica of the parent species enters the world.

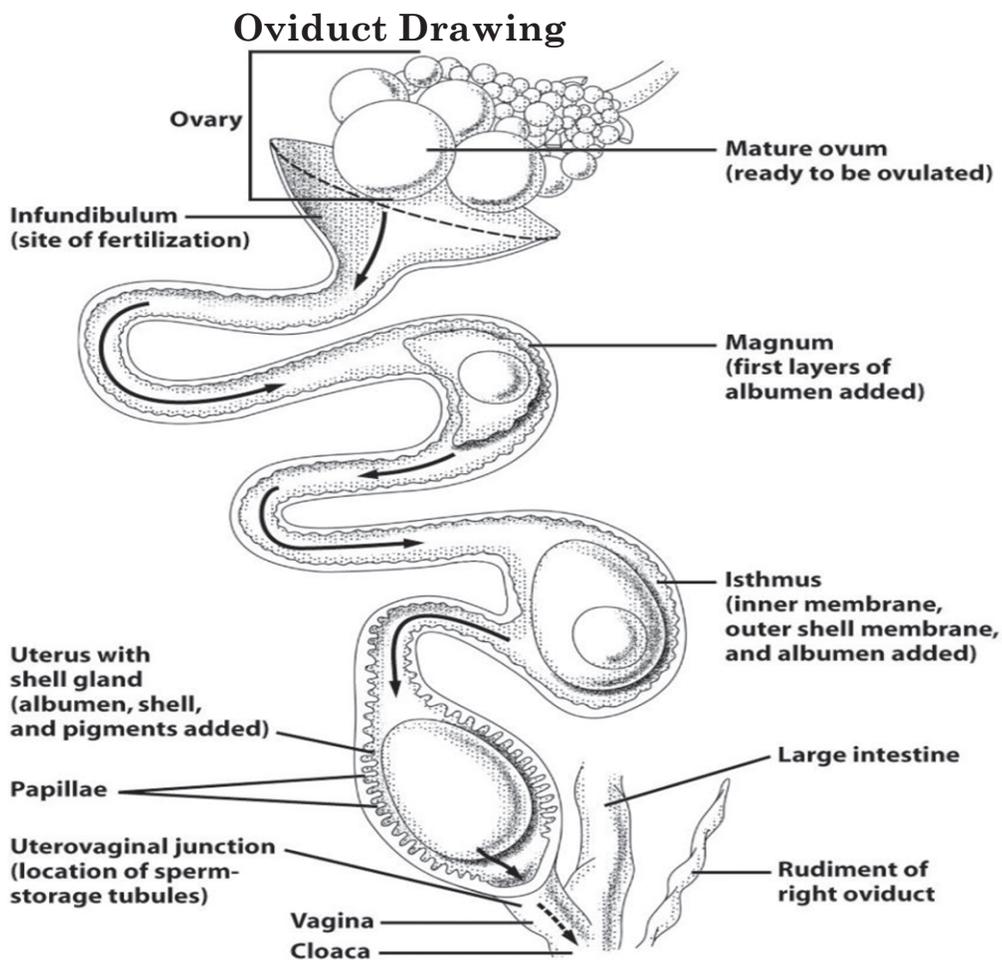


Figure 14-17
Ornithology, Third Edition
 © 2007 W. H. Freeman and Company

Children's Backyard Activity: Study the parts of a chicken egg

Break a chicken egg carefully and place it on a white plate to study its parts. Save the shells to make a Work of Art (following the examination section).

Find the parts of an egg:

Outer albumen (A)=loose white of eggs; runny; serves to shield the yolk from movement and damage

Inner albumen (B)= tight white of egg; stabilizes the yolks movement so it remains in the center of the egg

Yolk (C)= rich in protein and fat and nourishes the developing embryo; yellow

Germinal disk (D)= a channel to the center of the yolk to aid fertilization; if fertilized, the embryo will grow into a baby chick under the right conditions

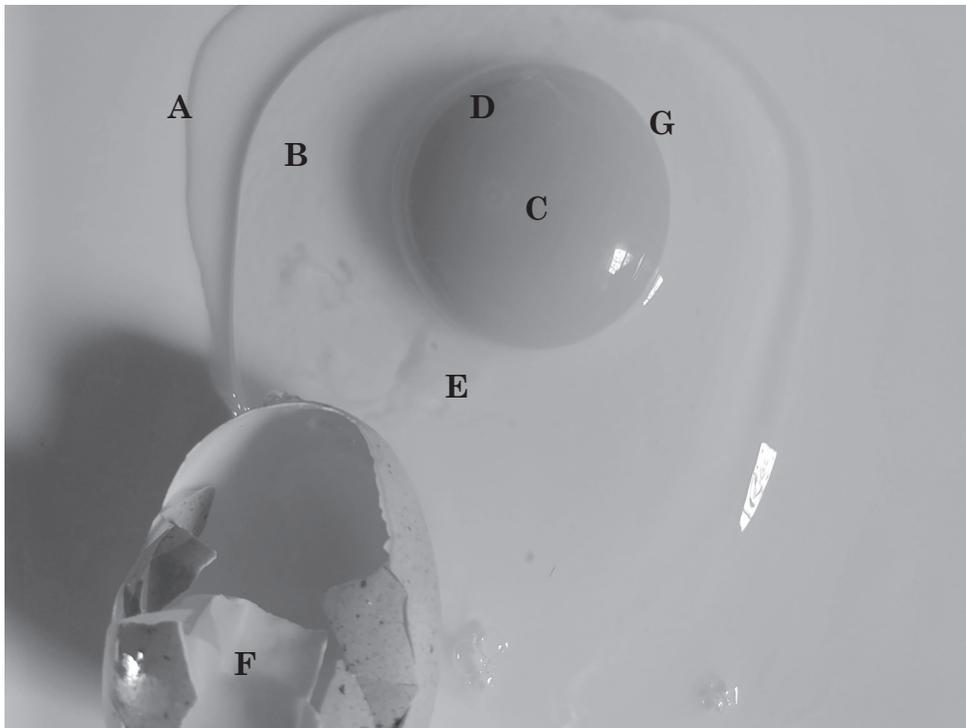
Chalaza (E)= rope like strand, attaches to yolk and white at both ends of yolk; keeps yolk centered

Air cell = airspace formed when the egg cools after being laid; located at the blunt end of an egg; between the inner and outer shell membranes

Inner and outer membranes (F) = second line of defense after the **shell**

Vitelline membrane (G) = encases the yolk keeping it from mixing with the white

Check out a fresh newly laid egg and compare it to an older egg.



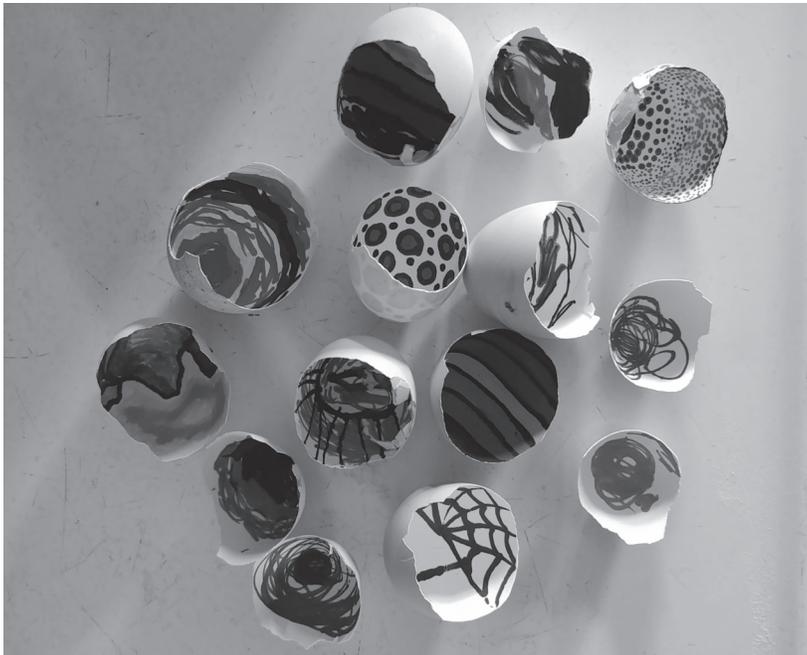
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Make a work of art inside the delicately cracked eggshell

After examining the egg, use the saved shell and use the inside of the shell to make a work of art. Wash the inside of the shell with water, carefully removing the membrane. The inside of the egg now becomes your fragile canvas. Choose drawing pens, brushes and paint to create your miniature eggshell paintings.

Check out <http://mymodernmet.com/sureyya-noyan-eggshell-paintings/> where a Turkish artist Sreyya Noyan transforms eggs by painting recreations of world famous works of art inside eggshells.



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.

Please take a look next to your mailing address. Is there a sticker?

Thank you for your past support but your membership has expired. Your renewal will be appreciated!

Creature Feature: Bats *By: W. Scott Douglas*

This is the 48th installment in a series of articles on the fauna of Cooks Creek Watershed.

As I sat on my back deck relaxing after work a few weeks ago, I was happy to see that the first bats of the season were flitting through the evening air. Bats that hibernate during the PA winter typically emerge in April and May and begin their nightly foraging for insects. Typically, bats will consume between 65 and 125% of their body weight each night. That's a lot of bugs, and many of them are agricultural pests and/or blood feeding gnats and mosquitos. Unfortunately, six of the nine species of bats that live in Pennsylvania are on the decline due to the parasitic fungus called white nose syndrome. In some cases, 90% or more of our colonial roosting bats (Little brown bat, Northern long-eared bat, Indiana bat, Small footed bat, Tricolored bat and Big brown bat) have been wiped out by the deadly disease. Once the most common bat in the state, the Little brown bat, *Myotis lucifigus* is now on the PA endangered species list. While it seems unlikely they will go extinct, there are noticeably fewer bats circling my house in the summer night sky.



Bats have few natural predators, but a few are taken by owls and raccoons who have learned to roust them from crevices or scrounge them off the floor of caves. Far more bats are killed by wind turbines than any predator. Bats form roosts in many places including tree cavities, under loose bark, in wood piles, crevices, caves, mines, tunnels and storm drains. They will also use barns, sheds and attics. Being nocturnal, bats rarely come into contact with humans, but they do when they use our buildings for roosts and it's this interaction that is the foundation of many myths. To set the record straight, bats do not contract rabies any more often than any other mammal, they do not intentionally swoop to attack humans, and their guano does not cause Tuberculosis, nor does it carry histoplasmosis. Regardless, bats should not be picked up or harassed, as they are quite delicate and easily crushed.

Bats breed in summer and fall in large mating flocks called swarms that can number in the hundreds, or even thousands. They breed rather promiscuously, with many different partners. The females hold the sperm in their bodies over the winter and fertilization occurs in the spring. Gestation is 30-60 days, after which the mother gives birth to a single tiny blind, deaf pup. Tiny as it is, the pup can be as much as 30% of its mother's weight. The pup feeds voraciously on its mother's milk, requiring an enormous nightly calorie intake. Only a few hours after birth the pup can see, hear and hold onto the roof or side of its roost by itself. It grows quickly, reaching weaning age and being able to fly after as little as a month. Females are fully mature in the first year, males in the second. When fully grown, bats range in size from less than a quarter ounce to about an ounce and a half. Wingspans range from 8 to 16 inches. While most species live 5-6 years, some banded animals have been known to live for several decades.



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Six of our PA resident species stay year round and hibernate in caves or barns. These hibernacula must stay between 32 and 64 degrees. Humans can disrupt hibernation by entering bat hibernacula and altering the temperature of the confined space. If a bat wakes too many times during the winter, it will use up its store of fat before spring and starve to death. Moisture from humans can also cause condensation to form on the fur which also saps energy from the sleeping animal and also will result in starvation. PA resource managers have placed bars at the mouths of known bat caves to discourage winter entry. The other three species of bats (Silver haired bat, Hoary bat and Red bat) migrate to central and south America for their winter vacation.

If you want bats to come to your property and provide insect removal services, build them a bat box and place it on the edge of your property, in full sun, with the opening facing the Creek or other water source if possible. Make sure that the entry pathway is not blocked by any tree branches or other obstacles.



Green Tip #46: Conserving Resources, a Six Step Plan *By: Jim Orben*

In these modern times after China has been the world's major recyclables buyer and before the rest of the world steps up to absorb the stream of valuable resources left to float on the world's oceans, what can we do to make the situation better?

1. **Refuse** - Do your best to not accept packaging that has no use to you once the item you actually bought is in your possession.
2. **Reuse** - Many things we discard still have value. Have yard sales and sell these old things to your neighbors or donate them to Goodwill, church yard sales, or other worthy causes. Buy used things.
3. **Share** - Not every house in your neighborhood needs a snow blower or a rototiller. Take turns, till each other's gardens and clear each other's snow. Power tools and hand tools can be easily loaned.
4. **Recycle** - Truly recyclable resources can be returned to the production cycle. Most metals and paper are easily recycled and clean plastic bottles will someday join the list of recyclable items here in the U.S. as they are now in Norway.
5. **Simplify** - This idea can mean many things. Before you buy, hold your purposed purchase in your hand and ask, "Does this truly Spark Joy?"
6. **Repair** - Maybe you can't repair a microwave, but you can replace your sneaker shoe laces. Or try patching your shirt with the new rage called "sashiko", a Japanese embroidery technique.

Recycling, Trash to Treasure *By: Jim Orben*

Earlier this Spring, on Saturday April 6, many members of the community joined the Cooks Creek Watershed Association in our annual roadside trash collection effort. We were way too successful in finding trash to collect. We filled two PennDOT dump trucks with everything from tires to cigarette butts, and many other odd items that just made us shake our heads and sigh. Lois and I walked from Springtown to Durham on Rt. 212 filling over thirty plastic bags with what we found. It took three hours. Much of what we found was made of plastic. There were water bottles, drink cups and covers, straws, bags, clear blister packages, foam insulation, toys, vinyl siding, and shattered car parts mixed with the bones of deer. All but the bones were made of plastic.

All this plastic litter caused me to look through my own recycle bin at home and see what actually was in there. What was it that I bought in single use plastic containers that I was just tossing in the bin and forgetting about until Wednesday morning when I put out the bin for collection, and then what happened to it? The contents of the bin were not exotic. I had plastic, glass and steel food containers. There were cardboard and plastic wrappers for various items I purchased at the hardware store. There was lots of mail and newspapers and a cardboard box I had cut up. It seemed to be a pretty mundane collection of stuff. It was a lot of containers that I bought, carried home, emptied of the items I actually wanted and then tossed in the bin. Where did all this emptiness go when Reiss Brothers picked it up and took it away?



Since China raised its contamination standards on recycled products from the United States many large cities have been forced to divert recyclables to landfills or waste to energy plants where they are burned. I called Reiss Hauling and asked what was up. I found out that they have a long-term contract with Cogle's Recycling, Inc. in Hamburg, PA and that everything that they collect goes there. I next called Cogle's Recycling and asked the same question. Here I learned that the paper went to a mill in Reading where it was remade into paper and that the baled plastic items went to GP Harmon, part of Georgia Pacific, where I was assured that it was repurposed and not burned. This does make me feel a bit better about all the packaging I buy, but I still ask how can this be changed into a more sustainable system?

Many of us take our own reusable bags to the market, buy our electricity from renewable sources, and do more than one errand on each trip we take in our cars. The whole system that supports these small gestures to environmentalism is still so wasteful. I wish I had a short, concise answer to repair this problem. When I look backward to my childhood I see a simpler, less complex world. I realize that this assumed simplicity arises because I was too young and inexperienced to comprehend the whole thing. Now when I look forward, contemplating the future, I hope that the technological society that created the life I live today can overcome the mistakes and miss directions I find myself struggling with right now.

Back to the Past: Early Fire Extinguishers

A column highlighting the natural history of the Watershed.

By: David Oleksa

On a recent tour of the Durham Mill, I noticed two brackets (in two separate locations) attached to the inner walls of the historic structure. On previous visits, I had been told that these were candle holders, but taking a closer look this time caused me to wonder why a candle holder would have a quarter-size hole in its base. Fortunately for me, the mill was also being visited by some other mill enthusiasts and one of them explained that the brackets were not meant to hold candles (which would have been a bad idea in the first place since mills were prone to catching fire) but instead were employed as part of a primitive fire prevention system.

Upon returning home, I began to do some research and discovered that between 1870 and 1910 glass grenade-style fire extinguisher “bombs” were used to protect not only mills but other fire-prone buildings like factories and warehouses. These extinguishers consisted of a glass container, shaped like an obese light bulb. The “stem” of the bulb fit into the hole in the bracket that I had noticed, stabilizing the container. The earliest of these “bombs” (See figure one) were filled with salt water and if there was a fire any person could simply take the container and hurl it into the flames. The glass would shatter and the salt water would hopefully douse the fire. If the fire was not put out with any luck the action would give the individual a little time to escape. The “bombs” were originally hand-blown (often colored) glass bottles but at the very end of the 19th century a more industrial design was used and instead of containing salt water, a fire suppression chemical, often carbon tetrachloride was dyed red or blue and was used to fill the containers.



Figure 1: Courtesy of the Wetaskiwin and District Heritage Museum

Other innovations soon followed with new

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styles of brackets suspending the “bombs” over areas of high fire risk. These brackets were designed to (if the temperature became too hot) release the bomb which would drop and shatter dispersing the fire retardant. Still later models had spring-loaded trigger devices which when a high temperature was detected would shatter the glass container and direct the liquid on to a metal deflector which would serve to spread the retardant over a larger area.

Note: The originators of this method of fire protection had a good simple idea but where they went wrong was to start using carbon tetrachloride as the retardant. People were unaware of the dangers involved with this particular chemical. We now know that exposure for as little as 15 minutes to carbon tetrachloride can lead to problems involving the gastrointestinal tract, as well as respiratory, kidney, thyroid, brain and reproductive problems. Some museums have been told to destroy their exhibits that include these devices and anyone who has one of these early extinguishers should be very careful. If a label is attached and indicates salt water inside you shouldn't have to worry. But if the label shows a fire retardant take appropriate steps to protect yourself and others.

It's interesting to think that recently we've become more aware of the dangers involved with fire retardant chemicals (a prime example being the water supplies in the Willow Grove air station area being contaminated) yet a century and a quarter ago people created a similar problem.



Picture of holder in Durham Mill



Figure 2: Courtesy of Security Systems (c) 2016

Recycle! Local Recycling Information

Durham Township Recycling Center

Location: Municipal Building, 215 Old Furnace Rd, Durham

1st Saturday of every month (2nd Saturday if 1st 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 or call 610-346-6700.

Blinderman & Son

Location: 1320 Whitaker St, Hellertown. 610-838-9221

Hours:
7:30AM – 4:00 PM, Monday – Friday
7:30 AM – 11:30AM, Saturday

Accepting cardboard and most metals.

City of Bethlehem Theis/Cornfeld Recycling Center

Web site: www.bethlehem-pa.gov/recycle/services/theis_cornfeld.htm

Location: 635 Illick's Mill Rd, Bethlehem

Phone: 610-865-7082 Hours: Weekdays: 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
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
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:
3rd Thurs. @ 7 PM
EAC: 1st Tues. @ 7 PM

Williams Township:

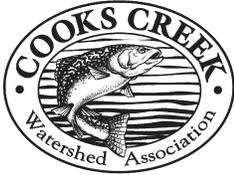
www.williamstwp.org
610-258-6060
655 Cider Press Road

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

Richland Township:

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

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.

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