water matters

Cobb County Water System

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662 South Cobb Drive
Marietta, Georgia 30060

770-528-1482
water_rsvp@cobbcounty.org

www.cobbstreams.org

Take Some Time for Reflection With Our Winter Recommended Resources: *Poems For Every Day and Every Night*

A Nature Poem for Every Day of the Year contains 365 poems celebrating nature and the changing seasons. This is the perfect bedside companion for any nature or poetry fan, featuring famous odes from big-name poets alongside unsung poems from less well-known writers.

The River and the Tree
"You are white and tall and swaying," sang the river to the tree,
"And your leaves are touched with silver – but you never smile on me;
For your branches murmur love songs to the sun-kissed turquoise sky,
And you seem so far above me that I always hurry by!"

"You are laughing in your shallows, you are somber in your deeps,
And below your shining surface there's a heart that never sleeps;
But all day you pass me by, dancing, and at evening time you dream,
And I didn't think you liked me," sang the birch-tree to the stream.

So they got a bit acquainted on a glowing summer day,
And they found they liked each other (which is often times the way);
And the river got so friendly, and it ran so very slow,
That the birch-tree shone reflected in the water down below!

By Margaret E. Sangster, From *A Nature Poem for Every Day*

Book images from Amazon.com

A Nature Poem for Every Night of the Year is a calming collection of nature poems to help you relax and unwind at the end of every day.

Now more than ever, we're all in need of a daily fix of the natural world to comfort and distract us from the cares of everyday life. Keep this beautiful book by your bedside and enjoy a dreamy stroll through nature every evening, just before you go to sleep.

Animals Don't Necessarily "Hibernate" in Winter

By Kathryn Dudeck, Wildlife Director, Chattahoochee Nature Center
https://www.chattnaturecenter.org/blog/animals-dont-necessarily-hibernate-in-winter/

You are probably familiar with hibernation, but what about brumation, torpor, or even diapause?

Eastern Chipmunk https://en.wikipedia.org/wiki/Chipmunk

When we think of winter in Georgia, shorter days, sleet, light snow, cold rain, and a drop in temperature all usually come to mind. But it's not just the humans who prepare for the upcoming months; many animals change their behaviors, too. You are probably familiar with hibernation, but what about brumation, torpor, or even diapause?

Hibernation is a catch-all term derived from the Latin hibernare, which means "winter quarters." There are, however, very few species that hibernate in Georgia, with the most common being bats, chipmunks, and groundhogs. Though we often think of hibernating bears, they instead enter a torpor. With true hibernation the animal is so deeply asleep that it rarely wakes up until temperatures warm and days lengthen. Torpor is very similar but is a lighter sleeping state; bears quickly awake if there is potential danger nearby.

Instead of hibernating like warm-blooded animals, Georgia's cold-blooded reptiles and amphibians brumate, sometimes written as bromate. These ectothermic animals are dependent on the environment to maintain their body temperatures.

Some animals such as snakes and lizards who live in the higher elevations of the mountains enter a hibernaculum. This could be a cave, rock ledge, or similar spot where multiple species gather, sometimes with over a hundred individuals!

*Black Rat Snake:*Michael Bartell
https://www.chattnaturecenter.org/

Eastern Box Turtle: https://nationalzoo.si.edu/animals/eastern-box-turtle

Aquatic turtles will often spend the time in a lethargic state at the bottom of a pond or lake, occasionally slowly crawling or drifting.

Eastern box turtles will burrow under fallen logs, into compost piles, or loose, soft soil. Despite what the calendar shows, if temperatures reach the 40's during a sunny day, you may see some of these critters soaking up some rays and finding a snack to eat.

Insects are yet another group that slows down in the winter, but these animals enter diapause. Simply put, it is a state of dormancy and affects all stages of insects, from egg to adult, and the animal will not develop any further until spring. Unlike mammals and reptiles who remain active until the temperatures really begin to drop, insects enter diapause in fall before it becomes too cold for them to function. Another difference is that even if the weather becomes conducive to continuing development, the insect remains in its suspended state until spring. It is common to find insects overwintering under fallen leaves or even in the stems of dead flowers in your yard.

As you're filling up your bird baths for your feathered visitors, don't forget to put a saucer of water on the ground for some of the other animals that you don't expect to see while you're bundled up. You never know who may show!

American Robins: Robyn Greene
https://journeynorth.org/robin/spring2012/caption021412_3.html

CONSERVATION TIP

This winter, keep your fireplace damper closed unless a fire is going. An open damper can let 8 percent of the heat in your home escape. In the summer, cool air escapes. That's about $100 a year in energy costs up the chimney.

Source: *The Green Book*

ECOPEDIA

Gaia - Theory that suggests the Earth's pleasant temperature, breathable air, and non-acidic waters are produced and regulated by the growth and metabolism of life. All life forms are physically connected through air, oceans, fresh water, and other fluids of earth, and respond to each other through differentials in growth, metabolism, and behavior.

Source: *Ecology: A Pocket Guide*

COBB'S CLIMATE UPDATE

Declared Water Restrictions Status:
No restrictions

Outdoor water use: Irrigation permitted daily before 10 AM and after 4 PM.

No restrictions on other outdoor water uses. Cobb Water encourages our customers to conserve water year round.

U.S. Drought Monitor: None

Rainfall Level: Above Normal
- 2021 Total: 60.68 inches
- Jan-November Historical Average: 45.81 inches

Rainfall September - November 2021:
- September: 4.45 inches
- October: 2.44 inches
- November: 1.59 inches

Allatoona's current level:
837.15 feet, below normal

Chattahoochee River and tributaries:
At or above normal ranges

Lake Lanier:
At or below normal level

Make Every Drop Count: Managing a Water-Wise Landscape

Source: UGA Extension
https://tinyurl.com/ys3j3skc

The weather outside may not make you want to spend time in your yard and garden, but Spring planting is just around the corner. Now is the perfect time to plan an upgrade for your landscape to a water-wise landscape. Water-wise landscapes not only save water, they save time by requiring less routine care than most traditional landscapes. Plants in a water-wise landscape are carefully selected for the site and grouped together according to their water needs. Then cultural practices are used to maximize the soil's ability to hold water and to minimize water loss. When a landscape achieves water-wise status, at least 60 percent of the total landscaped area is considered "low water use" and watered exclusively by Mother Nature.

One goal in managing a water-wise landscape is to minimize new vegetative growth. Lush new growth is the first to wilt when water becomes limited. New leaf growth also increases the demand on the roots for water and nutrients, which is a problem during periods of limited rainfall. Generally, the more we stimulate plants to grow, the more care they require, and the more resources are required to maintain them.

Another goal in managing a water-wise landscape is to conserve moisture in the soil and reduce evaporative water loss.

Mulching is a Must!

Mulch is a great asset in a water-wise landscape. Organic mulches such as pine straw, pine bark mulch or shredded hardwood mulch conserve water. These fine-textured mulches hold moisture in the soil, yet they are porous enough to allow water to infiltrate into the soil. Unfortunately, organic mulches decompose, shrink in volume and need replenishing regularly.

For best water conservation, maintain 3 to 5 inches of mulch on the soil surface at all times. Generally, one bale of pine straw covers 50 square feet when applied to a 5-inch depth. One cubic yard (14, 2 cu. ft. bags) of bark mulch covers 100 square feet to a 3-inch depth.

Several municipalities and power companies collect and grind wood and brush left curbside by citizens, then make it available as mulch.

Mulch/pine straw: https://tinyurl.com/3kt4w6zs

Drip irrigation: https://tinyurl.com/4szdjes8

Drip is Dandy on Flowers

An efficient way to water annual flowers, roses and herbaceous perennials is with drip irrigation tubing or ooze hose. The hose can be woven in a serpentine fashion throughout the bed and placed under the mulch. Drip irrigation avoids spraying the foliage so it does not encourage disease. It also applies water directly to the roots, so there is less evaporative loss of water.

Let the Clips Fall Where They May

Grasscycling is the process of leaving clippings on the lawn at each mowing instead of bagging them. Research shows clippings work their way back into the grass. They act like a mulch at the soil surface, helping reduce moisture loss from the soil. Grasscycling also recycles as much as 30 percent of the nitrogen applied to the lawn back to the grass as clippings decompose. The key is to mow often enough so the clippings remain small and move readily back into the grass.

Water Only Plants That Need It

Water those plants that show signs of moisture stress. Plants under moisture stress turn a gray-green color or wilt. When hand watering, make certain you apply water slowly at a rate the soil can absorb. Use a water-breaker on the hand-held hose to soften the impact of the water on the ground. If water starts running off the site, you are applying it too rapidly. Either turn down the pressure or make several passes with the hand-held hose over the same area to give soil time to absorb the water.

Less is More When Fertilizing

Most established healthy trees and shrubs only need fertilizer once every two to three years. Most established herbaceous perennials perform well when fertilized every other year. If you do a good job of building up organic matter in the soil, plants can extract essential mineral elements they need from the soil and will not require annual fertilization. Annual flower and roses are exceptions, they require regular feeding to grow and flower well.

Nitrogen, the first number in a fertilizer analysis, stimulates new growth, and new growth is the first to wilt during periods of limited rainfall. Furthermore, when shoot growth increases, root growth decreases, so the roots are less efficient at extracting moisture from the soil. When selecting a fertilizer for ornamental plants, look for one that is less than 15 percent nitrogen. Then apply it at a low rate (a low rate would be 1 pound of actual nitrogen per 1,000 square feet).

To calculate the application rate, divide the first number in the analysis into 100. For instance, a 12-4-8 fertilizer would be applied at a rate of 8 pounds per 1,000 square feet (100/12 = 8.3 or 8, rounded off). Never fertilize during dry periods because fertilizers are chemical salts and may dehydrate roots. Also, never fertilize prior to rainfall, because heavy rain may wash valuable nutrients down the storm drain into rivers and streams where they can become pollutants.

The best time to fertilize ornamental plants in the landscape is when spring growth begins. Research shows that plants absorb more fertilizer when they are actively growing, and they absorb little to no fertilizer when they are dormant. Fall fertilization is not recommended because it has been shown to decrease winter hardiness of some plants.

Aeration: https://tinyurl.com/4kbxh9ut

Aeration Helps the Flow

Turfgrass specialists recommend aerating lawns at least once a year. A lawn aerator makes holes in the grass approximately two to four inches deep and ½ inch wide. Aeration improves the percolation and movement of water and nutrients into the soil, decreases runoff and encourages the roots of turfgrass to grow deeply and to become more drought tolerant.

When in Doubt, Don't Cut It out!

Root growth depends on food substances produced via photosynthesis. The more green tissue a plant has, the more food it produces for promoting root growth. Summer pruning not only removes green leaf tissue and reduces photosynthesis, it diverts the plant's energy into new shoot growth at the expense of root growth. By minimizing summer pruning, the plant's energy can be directed to root growth, and the more roots a plant has, the more efficient it is at absorbing moisture from the soil.

Exceptions to the summer pruning rule are pruning done to remove dead, diseased or damaged wood and pruning done in an effort to save a plant suffering from drought stress. When a plant wilts during severe drought stress, survival pruning may be necessary. This involves pruning back the plant canopy by one-third or more to reduce the leaves' demand on the roots for moisture. Survival pruning during extreme drought may be the difference between life and death for some drought sensitive plants.

Thank You to our Fall Intern!

The Watershed Stewardship Program would like to thank our fall high school senior intern, Colin Bell. Colin became a certified Adopt-A-Stream volunteer and monitored Allatoona Creek for his Senior Internship and Research class. In addition to collecting valuable comparison data, Colin also helped in the office and Wildlife & Rain Garden, learned about stormwater, pollution prevention techniques, and stream biology. Thanks for all your hard work during the fall semester and best wishes for the remainder of your senior year!

Stewardship Stars
Excellence in Data Collection

The following volunteers have submitted data each month during the August, September and October quarter:

Beving on Allatoona – Chemical & Bacterial Monitoring on Lake Allatoona
Bishop Lake – Chemical Monitoring in the Willeo Watershed
Cobb Progressives – Chemical & Bacterial Monitoring on Noonday Creek
Concord Woolen Mill – Chemical Monitoring on Nickajack Creek
Donna – Chemical Monitoring in the Olley Watershed
Ernstes – Chemical Monitoring on Ward Creek
Georgia Lake Monitoring – Chemical Monitoring on Lake Acworth
Good Guy Greg – Chemical Monitoring in the Proctor Watershed
Grams Collins Gals – Chemical Monitoring in the Willeo Watershed
Keep Smyrna Beautiful – Chemical Monitoring in the Nickajack & Poplar Watersheds
Lakewood Colony – Chemical & Bacterial Monitoring in the Rubes Watershed
Ledbetter – Chemical & Bacterial Monitoring on Poplar Creek
M Marshall – Chemical & Bacterial Monitoring on Allatoona Creek
NobleSix – Chemical & Bacterial Monitoring in the Nickajack Watershed
Pope High School – Chemical Monitoring in the Sewell Mill Watershed
Richard's Creek – Chemical Monitoring in the Allatoona Watershed
Sierra Club Centennial Group – Chemical, Bacterial, & Macro Monitoring in the Rottenwood Watershed
Simon Locke – Chemical, Habitat, & Bacterial Monitoring on Butler & Proctor Creeks
Team Salty – Chemical Monitoring on Sope Creek
Village North Highlands – Chemical & Bacterial Monitoring in the Willeo Watershed
Whitefield Academy – Chemical, Bacterial, Macroinvertebrate, & Habitat Monitoring on Nickajack Creek

Thank you for your hard work and dedication!

welcome

Clean Water Buddies - Chemical & Bacterial Monitoring on Sope Creek
Colin Bell - Chemical & Bacterial Monitoring in the Allatoona Watershed
The Lander Band - Chemical Monitoring in the Powder Springs Watershed
Lesterosa - Chemical Monitoring on Nickajack Creek
Officer Justice, Cobb County PD - Chemical Monitoring on Butler and Proctor Creeks
Venya's Adopt A Stream Team - Bacterial Monitoring on Sope Creek
Victoria's Stream - Chemical Monitoring in the Willeo Watershed

Congratulations to our award-winning volunteers and partners for their tremendous contributions to the Cobb County community and water quality!

Patty Ingalsbee has earned the *Garden Volunteer of the Year* award for her involvement in the Cobb County Wildlife & Rain Garden. Patty has been the anchor of our volunteer group over the last year. Thanks for always being there Patty! We appreciate you so much!

Kennesaw Mountain National Battlefield Park is our P*artner of the Year*! We have enjoyed working with the Rangers at Kennesaw Mountain this past year developing interactive virtual lessons for middle schoolers. Our ongoing partnership has always been amazing and fun.

Anita Wender is our *New Volunteer of the Year*! Anita has completed the Outreach Volunteer training, Adopt-A-Stream chemical, bacteria, and macroinvertebrate training, worked in the Wildlife & Rain Garden, and assisted with cleanups and storm drain marking events. Amazing!

Thank you for your amazing work! We appreciate your commitment and dedication!

SEASONAL HAPPENINGS

Privet Pull
December 9, 2021 • 4:00pm - 6:00pm • East Cobb Park, 3322 Roswell Road, Marietta
January 8, 2022 • 10:00am - 12:00pm • Price Park, 4715 Stilesboro Rd, Kennesaw
February 17, 2022 • 4:00pm - 6:00pm • Sweat Mtn Park, 4346 Steinhauer Rd., Marietta
Privet is a non-native, invasive plant that out-competes native species. We'll be removing privet from the landscape. Join us to help restore habitat and native plant species. We will provide clippers and tools that pull the privet right out of the ground by its roots.

Noonday Habitat Demonstration Site Workday
December 11, 2021 • 10:30am -1:30pm • Noonday Trailhead, 3015 Bells Ferry Rd, Marietta
February 19, 2022 • 10:30am -1:30pm • Noonday Trailhead, 3015 Bells Ferry Rd, Marietta
Join us at Noonday Creek to remove invasive plants from our ongoing streambank improvement site.

Amphibian Monitoring Workshop
January 22, 2022 • 10:30am - 1:00pm • Cobb Water Quality Laboratory, 662 South Cobb Drive, Marietta
The Cobb County Amphibian Monitoring Program aims to connect Cobb County residents with environmental professionals to develop a community of "Citizen Herpetologists," who are able to collect data on Cobb's resident amphibians. Due to their unique ecology, amphibians not only play a key role in our ecosystem, but they also serve as excellent bioindicators of water quality and overall environmental health.

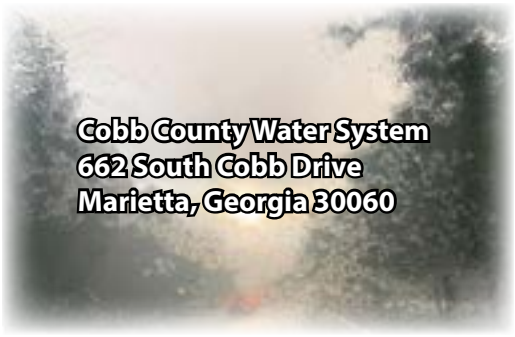
Stream Cleanup
February 26, 2022 • 10:00am - 12:00pm • Tramore Park, 2150 East-West Connector, Austell
We will provide you with trash bags, grabbers (litter sticks), safety vests, gloves, and data cards to record the debris we collect. Come on out and help clean our streams!

To register for a space in these upcoming service projects, visit our website, www.cobbstreams.org, under Calendar.

OBSERVATIONS

When songbirds leave their hiding spots in the thickets to eat at your backyard feeders, another type of feathered visitor may arrive on the scene: the Sharp-shinned Hawk (pictured left). About the size of a dove, this small bird of prey is the most common predator at feeders. Its relative, the larger Cooper's Hawk (pictured right), may also visit feeders for a snack. To prevent your songbirds from being gobbled up by stalking accipiters, simply stop filling your feeders for about a week. Although the songbirds will need to rely on natural foods during that time, the hungry hawks won't have such easy pickings and will move on.

Linda May, *Environmental Outreach Coordinator*
Georgia DNR, Wildlife Resources Division



This is an official publication of the Cobb County Water System, an agency of the Cobb County Board of Commissioners.

Calendar of Events

December

2 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
4 Adopt-A-Stream Visual Monitoring Workshop • 10:00am – 1:00pm • Cobb County Water Quality Laboratory
9 Privet Pull • 4:00pm – 6:00pm • East Cobb Park
10 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
11 Noonday Habitat Demonstration Site Workday • 10:30am – 1:30pm • Noonday Creek Trailhead
16 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
17 Lunch & Learn: Winterizing Your Faucets & Irrigation System •12:00pm – 12:45pm • Webinar

January

6 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
8 Privet Pull • 10:00am – 12:00pm • Leone Hall Price Park
13 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
15 Adopt-A-Stream Macroinvertebrate Monitoring Workshop • 10:30am – 3:00pm • Cobb County Water Quality Laboratory
20 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
22 Amphibian Monitoring Workshop • 10:30am – 1:00pm • Cobb County Water Quality Laboratory
27 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
28 Lunch & Learn: Amphibians of Cobb County • 12:00pm – 12:45pm • Webinar

February

3 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
10 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
10 Adopt-A-Stream Chemical Monitoring Workshop • 6:30pm – 9:00pm • Cobb County Water Quality Laboratory
17 Wildlife & Rain Garden Workday • 9:00am – 11:00am • Cobb County Water Quality Laboratory
17 Privet Pull • 4:00pm – 6:00pm • Sweat Mountain Park
19 Noonday Habitat Demonstration Site Workday • 10:30am – 1:30pm • Noonday Creek Trailhead
25 Lunch & Learn: The Benefits of Healthy Watersheds • 12:00pm – 12:45pm • Webinar
26 Stream Cleanup in Olley Creek • 10:00am – 12:00pm • Tramore Park

More information can be found on our Calendar at www.cobbstreams.org.