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| |  |  | | --- | --- | | |  | | --- | | A green sign with black text  Description automatically generated | |  |  |  | | --- | --- | | |  | | --- | | A bird on a green background  Description automatically generated | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | and the trees are beautiful!   ...but also, what do all the ribbons around the trees mean? | |  |  |  | | --- | --- | | |  | | --- | | Jeanne Wiebenga took the beautiful photos above and below on Friday, October 13. Turns out sometimes Friday the 13th means you're in for a lucky day!  Jeanne told me she woke up that morning, saw the beautiful light and ran outside in her pjs to start photographing. I assume she put on clothes before running down the Children's Beach to get the photo above of our beloved Red Oak, but I didn't want to ask too many questions. Hey, whatever it takes. This is hard-hitting journalism here and we need the best photos in the industry.  You may be wondering about **the ribbon around the tree**. Don't worry—**it's a green one and green is good**. A green ribbon around a tree means it needs to be pruned. In the case of this beloved tree, it got a special "vitamin" injection last spring and will get a booster this spring.  So **green means pruning**by an arborist. Note: There are no certified arborists on the Chautauqua Garden Team. Betsy and members of her crew have taken several classes and know when and how to prune so you may see the Garden Team doing smaller tree work, but you will NOT find them scaling trees and hanging from ropes with chainsaws running. That type of work is done by certified arborists.  A **pink ribbon means the tree needs to be evaluated** by an arborist.  A**yellow ribbon**means, well, you know the song....  But what makes you sad if you're a tree hugger is a **big painted orange X**on the trunk.  That means the tree has to come down.   Let's talk numbers: this year 12 trees will have to be taken down on Chautauqua Institution property. Last year 13 were removed. The reasons for removal are several, but in Chautauqua, the main reason is that it's a **veteran tree**(this is truly the name for the very old ones) which has become so weak that it poses a danger to the humans who live and play underneath it.   Dead trees who are lucky enough to have lived their lives in a forest can stand in place as "**snags**" (dead trees standing) providing housing in their cavities for woodpeckers, owls, bats, and other critters. Eventually the top will fall off, now called a **"broken snag,"** and that is the perfect penthouse for other creatures (particularly chickadees). And then ultimately the tree will fall to the ground and become a multi-unit apartment building for forest critters large and small. The small detritivores who eat the decaying wood are also food for larger animals like bears who paw apart the rotting wood looking for insect larvae. **It can take hundreds of years for a tree to completely rot away.** So that's the dream life cycle for trees, but it's not practical in our "**urban forest**."   So here's how we try to the do the best we can while protecting the humans. You may have noticed that in the ravines, the practice is to cut the trees at about 20 feet off the ground, skipping the dangerous stage of a very tall snag and getting right to the stage of a "broken snag." The felled treetop is then left on the forest floor, but cut or laid out so that it doesn't block the mulch walkways. And guess where that mulch comes from? Yup, you got it.  But outside of the ravine, the veterans are taken down and taken away. The danger from falling trees or large limbs is not acceptable and most humans don't yet find a broken snag or a rotting log to be an attractive feature in the landscape (...maybe someday though!).  Nonetheless, a veteran tree in Chautauqua is a prized one and we help them age in place as long as possible by amputating—er, I mean, pruning—dead branches. The Red Oak at Children's Beach and the old Sugar Maples on the Athenaeum Lawn are beloved vets, so they receive vitamins in addition to their annual pruning.    But all of this tree work costs a lot of money. You probably know that from your own experiences at home. **This year the Institution will spend over $65,000 on tree removal, pruning, pest management and a few doses of vitamins**. Sadly, that completely ate up Betsy's Tree Budget. (As in, no money left to plant new trees.)  **Enter the BTG! Since "Tree" is our middle name, this is when we step in. This year the BTG paid for the planting of ten new trees, a few of them quite large.**  The **BTG will also spend $2,000 this spring to treat the 20 remaining ash trees** against the Emerald Ash Borer.    But Gentle Reader, I am well aware that you can do the math—removing 12 trees and planting 10 replacements does not ensure the canopy we know and love for our children and grandchildren.  We would like to hike up the number of trees we donate to Chautauqua each year and we would like your help to do so. (In other words, please consider a donation in any amount to the BTG!)    Fortunately in addition to the trees the BTG donated, **four additional trees were planted as "Tribute Trees"**by families and individuals in memory or honor of a loved one through the Advancement Office.\* So this year the **balance was: Plus Two Trees**! A narrow victory for the tree canopy thanks to Druid Donors like you! | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  |  | | --- | --- | --- | | |  | | --- | | A person holding a tree  Description automatically generated |  |  | | --- | | A person touching a tree  Description automatically generated | |  |  |  | | --- | --- | | |  | | --- | | Oh, you thought I was done talking about trees?  Nah. That was just a little breather and a chance to insert more pretty pictures.  But if you're not into the nerdy aspects of tree planting, scroll right on down to the Dirt article, because we're about to go DEEP into the world of tree planting in Chautauqua.  Above and below are photos of some of the new trees the BTG donated which Betsy and her team planted in October. Above: An Autumn Blaze Maple on a flatbed truck that was planted beside Beeson.  Betsy standing beside a big Catalpa planted beside the Coyle Courts.  Below: A small Catalpa planted just uphill from the water treatment plant. A tiny red oak (one of 3-4) planted below the Coyle Courts.  Now I know what you're thinking as you look at those big trees...and you're right. It is not necessary or even advisable to plant big trees. Author Doug Tallamy advises planting acorns instead of oak trees. Don't worry. We know that and so does Betsy. And the Garden Team DOES plant seeds in addition to nursery trees. The team collects acorns and seeds to start them up at the shop. (Spoiler: next month we will feature photos of the new maintenance building and the grow lights and shelves in the Garden Shop.) They also keep an eye out for **volunteers** (a sapling that grows up on its own, with no human help) around grounds and stake them (to protect them) or move them to safer locations. And, check out the photo below. That's an oak sapling less than two feet tall. There are four of them along the hillside under the Coyle Tennis Courts. They have **red ribbons** on them so that they won't get stepped on or pulled or mowed because honestly they are so tiny that they could be mistaken for a weed.  But in a place like Chautauqua where there is so much foot traffic, vehicle traffic and big mowers, sometimes letting trees spend their first 10-15 years in a nursery and then transplanting them here just makes sense. (Plus, admittedly, there is the instant gratification factor!)   Interesting planting note: only three of the trees planted this fall were balled and burlapped (B&B). The rest were all bare-root. This is a recent shift in the industry and it seems like a good one. The bare-root saplings seem to establish faster and experience less girdling than B&B ones. (Girdling is when the roots wrap back around themselves or the trunk and strangle themselves). | |  |  |  |  | | --- | --- | --- | | |  | | --- | |  |  |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | The beautiful Sienna Maple in the photo above was planted in Miller Park on September 29, 2023 in memory of Jane Buch by her family, friends and the BTG.  Betsy worked with Dan Zuk of Zuk’s Tree Moving Service out of Ohio to select and plant this beauty, which he planted with a huge machine called a tree spade (see photo below).  When Jane Buch died in January of last year, her friends and family knew that a memorial tree would be the perfect way to remember the "Tree Lady."  And again, since "Tree" is our middle name, the BTG was honored to help make it happen.   Next year is the Chautauqua's 150th Anniversary and many of us have been scheming about a Tree Planting Campaign in honor of the event. Stay tuned for more on that.  - Leslie Renjilian, BTG President    \* If you are interested in donating a Tribute Tree to Chautauqua in honor or memory of someone, contact Joanna Kaufman, Assistant Director of Donor Relations, Chq Office of Advancement at jkaufmann@chq.org or 716.357.6381. The cost is $1,500 and the tree will be recorded in the Tree of Life book in Smith Library. | |  |  |  |  | | --- | --- | --- | | |  | | --- | |  |  |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | Why We Don’t Just Eat Dirt by Dennis McNair | |  |  |  | | --- | --- | | |  | | --- | | Soil contains almost all of what we animals need to stay alive, so why don’t we just eat dirt?  It’s plentiful and ubiquitous, and, apparently, it’s nutritious.  The obvious answer (besides the fact that most dirt doesn’t taste particularly good) is that we also need energy.  Ultimately, the energy that powers Earth’s living things comes from the sun.  A few organisms (most containing the green pigment called **chlorophyll**) can convert the sun’s energy through **photosynthesis** into a usable form – usually carbohydrates formed from carbon dioxide and water.  We call them **autotrophs**, or “self-feeders.”  The rest of us (called **heterotrophs** or “other eaters”) consume those photosynthesizers,  or their remnants, or other heterotrophs, and extract the energy they contain.  A simple way to think about it is that energy from the very hot sun is stored in energy-rich molecules and then slowly released in biologically usable form through **metabolism** – a sort of very slow burning – in the cells of living organisms.  At each step in the process, about 10% of the stored energy can’t be used and is lost through heat, and metabolism causes the rest of the energy to become heat too, eventually.  Of course, “the Devil is in the details,” and much of biology is devoted to elaborating those processes and their intermediate steps.  But, basically, it’s sun (hot) to photosynthesis to heterotrophs and back to heat.  As the famous TV salesperson, Ron Popiel, would say, “Wait!  Wait!  There’s more.” After all, biology teachers would all be out of a job if everything they had to teach was contained in one (fairly) simple paragraph.    In the end, all that heat is re-radiated back out into the (very) cold universe.  Some of it gets temporarily trapped by our atmosphere.  Earth is one of only a small number of “Goldilocks planets.”  We’re not too hot and not too cold.  We’re (on average) just right for life to exist.  Or at least, we have been for the last 4.5 billion years.  For most of that time, we’ve trapped a little bit of energy each year and it became stored in Earth’s crust as **fossil fuels**.  Humans have learned to mine and use that energy to do work for us, and since the**Industrial Revolution** we’ve burned much of what we’ve found.  Burning fossil fuels generates water and carbon dioxide, the compounds that photosynthesis used to store energy as carbohydrates in the first place.  The extra carbon dioxide in the atmosphere creates a shield that retains heat, much like the glass in a greenhouse.  (That **“Greenhouse Effect”** was discovered by Eunice Foote and John Tyndall in the 1800s and described mathematically by Svante Arrhenius in the early 1900s.)  Now we have so much heat built up in the atmosphere surrounding the earth that it’s affecting our weather and climates are changing.  A lot of the earth’s surface is becoming uninhabitable because plants and animals can’t exist outside those Goldilocks limits.  Current methods of air conditioning aren’t the answer because they employ the stored energy from fossil fuels to temporarily generate cooling, which causes more carbon dioxide, which eventually causes more heat.    So, we have to do something radically different to get the energy we need while controlling our overheating planet or we’ll all die (eventually) from being too hot.  No matter how unsavory our prospects are, denying the facts won’t change the future.   And, as was explained above, we can’t just eat dirt.  - Dennis McNair, PhD | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | A group of plants in containers  Description automatically generated | |  |  |  |  | | --- | --- | --- | | |  | | --- | |  |  |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | We launched this column last year in the hopes that our Life Members would send us happenings from their corners of the world during the off-season. And it worked!   Please enjoy the note below from Jerry O'Connor and Diane Hess who live in Aiken, SC when they are not in Chautauqua.  Jerry writes:  *I'm loving the change of seasons. Fall is my favorite time to work in my gardens—it is not so hot and the fall plants max out and are beautiful. Major Monarchs happiness in my acre of gardens this fall. All the conditions falling in place to make such a great season for the amazing pollinators that they are. Seeing the fight of butterflies has always been a bit of joy for me.   I have about fifty plants, mostly swamp milkweed a new plant called common milkweed which was stripped clean in the three weeks I was in Chautauqua. I have fifteen caterpillars 🐛 in my enclosure today all in different stages. There is a successful Monarch Butterfly club here, but I just do it on my own.  Although the plants are stripped clean of leaves, fortunately the pods dispersed enough seeds so I have a lot of new plants to get through the rest of the fall. I think the migrating butterflies that lay eggs have gone because now when I release the butterflies, they feed on my flowers and move on.*  All photos by Diane Hess. Above: Monarch caterpillars in their enclosure. Hand-raised caterpillars have a 90% survival rate, whereas caterpillars in the wild have only a 10% survival rate.  Below: Milkweed before and after the feast—literally just the stems left in Jerry's garden! Jerry taking a break from weeding on the porch of their playhouse. | |  |  |  | | --- | --- | | |  | | --- | |  | | | |  | | --- | |  |  |  | | --- | | A person standing in a small shed  Description automatically generated | |  |  |  |  | | --- | --- | --- | | |  | | --- | |  | | Mama Monarchs want you to cut back your milkweed late in the summer. Listen as Betsy Burgeson explains what she has noticed in the gardens at Chautauqua. | |  |  |  | | --- | --- | | |  | | --- | | [**Interested in making your own garden Monarch-friendly? Click here!**](https://explorechq.stqry.app/1/story/113913) | |  |  |  | | --- | --- | | |  | | --- | | And here's your Easter Egg as a reward for reading this far:  Look for an announcement soon from Chautauqua Travels about a trip to the  Monarch Preserves outside Mexico City in February 2024 led by our very own Betsy Burgeson!  Woohoo!! I will definitely be signing up! If you'd like to be added to the "Interested Early Birds List," email us by [clicking here](mailto:Bburgeson@chq.org,%20President@chautauquabtg.org?subject=Monarchs%20Trip%20to%20Mexico%20-%20I%27m%20interested%20in%20learning%20more.).    - Leslie | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | A NEW BOOK! | |  |  |  | | --- | --- | | |  | | --- | | Born in April 1932, **Robert (Bob) Sundell**grew up in Jamestown and graduated from Jamestown High School. Mentored by Clarence Beal, he became an avid birder. Bob was a founding member of Jamestown Audubon Society in the 1950s and taught biology and environmental science at JCC for many years.  Jack Gulvin, who has taken care of our Purple Martin houses and leads weekly Purple Martin Chats, Nature Walks and Tree Walks for the BTG, cites Bob Sundell as one of his chief mentors.  Bob birded two to three times a week and was involved in most bird activities in the Jamestown area for 70 years, including leading bird and nature walks for the BTG for many years. In addition to his birding activities and teaching, Bob also kept extensive records. He had hoped to publish this material, but this never happened. Bob died in 2017. After his death, Bill Saleen digitized Bob's data and then John Rappole and Jim Berry updated and edited the data and published it as a book in Bob's honor.  Bert Rappole says: "It is not a typical bird book or guide with photos and drawings of birds, but rather an overview of the natural conditions in Chautauqua County and how this relates to bird populations in the area."  The manuscript was published in Kindle e-book and soft cover formats in June 2023, both available from Amazon. Proceeds from sales of the book will be given to the Chautauqua Watershed Conservancy. In addition, a fund in Bob's honor has been set up at CWC to establish the **Robert Sundell Bird Sanctuary at Sunnnyside Marsh**, a boardwalk and viewing area, located on the south side of Sunnyside Road off Fluvanna Avenue, just south of Greenhurst.   The book's editors are noted ornithologists and authors themselves as well as friends of the BTG. **Jim Berry,** former President of the Roger Tory Peterson Institute, still leads the occasional Thursday morning bird walk for the BTG. **John Rappole** is research scientist emeritus at the Smithsonian Conservation Biology Institute and the author of numerous books, including the recently-published *Bird Migration: A New Understanding*.  John's sister Rosemary Rappole and niece Francesca Koron currently serve on the board of the BTG and his mother, Francesca Rappole, was president of the BTG for many years.    In honor of all three of men and because "Bird" is our first name, The BTG purchased and **donated 30 copies of the book to Smith Memorial Library**.  Librarian Scott Ekstrom made the brilliant suggestion that he keep 2-3 copies for our library and distribute the others to **Chautauqua area libraries**. He will bookplate them as gifts from the BTG. Check one out from a local library or buy your own using the link below.  **The BTG began donating books to Smith Memorial Library the year it opened—1931, and we are pleased to continue that tradition.** | |  |  |  | | --- | --- | | |  | | --- | | [**Click to Order a Copy for Yourself on Amazon ($10)**](https://www.amazon.com/BIRDS-CHAUTAUQUA-COUNTY-NEARBY-AREAS/dp/B0CD8TSKDP/ref=sr_1_1?crid=AHO2LIDTB2UI&keywords=birds+of+the+chautauqua+region&qid=1698153130&sprefix=birds+of+the+chautauqua+region%2Caps%2C335&sr=8-1) | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | Smithsonian Timeline | |  |  |  | | --- | --- | | |  | | --- | | Here's a link to a cool *History of Gardens* Timeline that the Smithsonian recently released: | |  |  |  | | --- | --- | | |  | | --- | | [**Timeline of American Gardens**](https://gardens.si.edu/collections/archives/timeline-of-american-garden-history/) | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | A deer standing on grass  Description automatically generated | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | A black and blue text  Description automatically generated with medium confidence | |  |  |  | | --- | --- | | |  | | --- | | While white-tailed deer are a native species, their current overpopulation is creating big problems. Some issues are more human-centric, like car accidents and crop loss, but deer are also reshaping forest ecosystems in profound and cascading ways. So, how did we get here?  Deer population in the US today is around 35 million, well above what scientists think is a safe carrying capacity in most areas. Yet despite their problematic abundance today, deer were actually at risk of extinction in the 1890s and early 1900s, with only about 300,000 left in the US. Populations were at an all time low and deer were nearly hunted to extinction. But with limits on hunting and the removal of deer’s biggest population checks and balances (wolves, bears, etc), the population started to rebound. Deer also thrive in suburban areas and edge habitats as opposed to total wild areas, meaning that even while most animals face habitat loss, deer are feeling pretty great about the current real estate.   The problem with this population boom is that deer target native species of plants, meaning that when there are too many hungry deer afoot, forests are cleared of all the plants we want there and the less desirable non-native plants are able to take over.  The overbrowsing of understory vegetation, including young saplings and shrubs, could impact forest regeneration and lead to a diminished diversity of tree species and disruption of natural successional processes. A Penn State study showed that 85% of Pennsylvania forests aren’t regenerating desirable tree species due to overgrazing by hungry deer.    It's not just the plants feeling the wrath of deer. The deer-induced loss of native species creates ripple effects on other wildlife like birds, caterpillars, and other critters that depend on native plants for food or for their homes. Conversely, the population of less-beloved creatures like biting flies and ticks increase when deer populations do. These issues mean that many groups are interested in ways to manage deer populations. In New York City, the Parks Department is currently conducting a population control study by sterilizing a whole bunch of male deer on Staten Island and tagging them, then tracking the population movement and mortality. The deer's friends will never believe them when they tell their story!    One special thing (of the many many thousands of special things) about Chautauqua Institution is that the fence and gates act as a deer exclusion zone, which means that in our ravine and other wooded areas, we can see what a forest in this region looks like without deer damage. (Good thing deer can’t afford gate passes or figure out the ticketing system!)    If you have some wooded property and you're interested in contributing to the larger research out there on deer impacts, consider joining AVID. AVID (Assessing Vegetation Impacts from Deer) is a project between the Department of Natural Resources at Cornell University, the New York State Department of Environmental Conservation, and SUNY Environmental Science and Forestry. It’s a method for volunteers, foresters, landowners and others to measure the effect of deer browse on New York forest health. The plots can be quite small to be part of the AVID research - the minimum size is a 6ft radius plot.[Learn more here](https://aviddeer.com/about).  Or you might consider creating your own deer exclusionary zone to help ensure the futures of our native trees. As you know, deer can leap so those fences will need to be at least 7.5 feet tall around an area of forested land.  Of course, hunting is also a useful conservation tool for keeping deer populations under control. Since humans cleared out all other natural predators, we are one of the only population checks left. So, thank The Lighthouse for playing their part in environmental stewardship the next time you pick up your zucchini bread!  - Ginny Renjilian and Clair Beltran - photo by Chris Flanders of a sweet visitor to their property near Stow | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | The Knights Who Say Ni | |  |  |  | | --- | --- | | |  | | --- | |  | |  |  |  | | --- | --- | | |  | | --- | | The Garden Crew nailed it with this year's Halloween costume!  If you are not a Monty Python fan, google the "Knights of Ni" and prepare to be amazed at how the Garden Team transformed plastic pots and pruned shrubbery into Ni Helmets!   Above: The Knights from left to right: Sophie Berg, Amy Smith, Kindy Parker, Aaron Firster and Tim Stewart. | |  |  |  | | --- | --- | | |  | | --- | | [**Make a Tax-Deductible Donation to the BTG (any amount)**](https://www.chautauquabtg.org/donate) | | |
| |  |  | | --- | --- | | |  | | --- | | [**Purchase a Life Membership ($250)**](https://www.chautauquabtg.org/membership) | |  |  |  | | --- | --- | | |  | | --- | | [**View Past Newsletters**](https://www.chautauquabtg.org/newsletters) | |  |  |  | | --- | --- | | |  | | --- | | [**Did a friend forward this newsletter to you? Subscribe here!**](https://chautauquabtg.us6.list-manage.com/subscribe?u=4f093175e423a691b27f7c2d6&id=b3c8a1f8af) | | |