August/September 2021 Chapter Newsletter

Wild Ones Mission Statement: promotes environmentally sound landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities.

Member Login: If you are a member, you are entitled to the resources on the national website. To create your website login, go to www.wildones.org and click on the "Member Login" button near the top right corner of the home page. Then click on "Already a member but not registered? Register password for member here". Complete the short form for the Wild Password Registration.**Note:** use the same email you used when completeing your registration form to join Wild Ones.

Membership: Our Wild Ones chapter is dedicated to educating and advocating for biodiversity in the Great Smoky Mountains. We offer a variety of programs and events throughout the year that teach and encourage sustainable landscaping and gardening practices using plants that are native to our smoky mountain region. Membership is vital to the ongoing success of our chapter. We invite you to attend our programs and to become a member! To obtain a membership packet, please contact Marti Agler at martiava@att.net

October Wild Ones Meeting Teaser

Growing a bountiful harvest begins with one simple yet extremely important step, regardless of where you live or what you're planting: soil quality. There are many ways to enhance the dirt you'll be planting your seeds in, none of which cost much money or time.

Soil is a mixture of air, water, mineral particles, and organic material. The amount of those components in every handful of dirt are the founding blocks of the soil structure and as such determine what will likely grow in the garden plot.

Before you can start improving your soil, you need to find out what it's lacking or what it has in overabundance. The soil and water conservation agencies in most counties will conduct soil sample testing for free or for a minimal charge or you can follow a few simple steps to test your soil at home. At the October 6th Wild Ones meeting, Tony and Jennifer Sciccone of SubTerra Organics Nursery will talk about "Soil Building" to give your native plants the best environment in the less than desireable soils that are so common in this area.

Plan to attend on Wednesday, October 6th at 6:30PM in the Burchfield Room at the King Library in Sevierville. They may also bring some plants to sell after the meeting.

The Mountain Ash: Red with Romance

By Carl Parsons

Who wouldn't love a beautiful ornamental tree, not too large or too small, with an abundance of leaves, pure white buds and blossoms in late spring followed by bright red edible berries in the fall, a tree that lives for up to 200 years and has the added (albeit folkloric) benefit of protecting us against evil spirits? Then meet the mountain ash, also known by its more romantic European name, **the rowan tree**.

The first thing to know is that the mountain ash is not an ash tree at all. While the ash is a very large tree, the mountain ash varies greatly in size, according to the growing conditions, but tends to be much smaller (no more than 10 – 20 feet tall) than the towering ash and belongs to a completely different botanical family —namely, the rose! Indeed, the mountain ash is often so small that it is thought to be a shrub instead of a tree. It does, however, have a compound leaf similar to that of the ash (only smaller and with fewer leaflets), which is the apparent source of confusion.

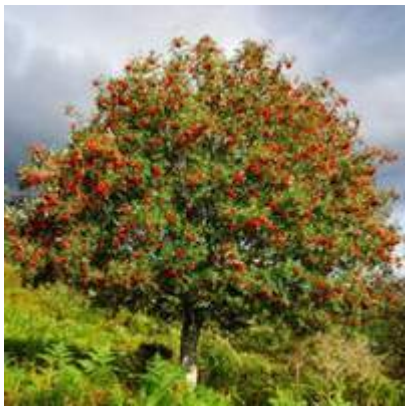
The variety of mountain ash that grows in the Smoky Mountains is the American mountain-ash (*Sorbus americanus*), which is very similar in nearly every respect to its European cousin (*Sorbus aucuparia*). The berries of both varieties often last through the entire winter until blossom time the next spring and thus provide an important source of food for wildlife, especially birds which play an important role is spreading the shrub's indigestible seeds. In England the berries, which are inedible raw, are cooked into a jam or combined with apples in a chutney and served with wild game and other meats.

The tree itself is very rugged and adaptable. While it prefers a rich, well-drained soil, it will grow in nearly all soils, including our stubborn East Tennessee red clay, compensating for any lack of nutrition it encounters by simply adjusting its size.

In the British Isles the rowan tree is associated with many aspects of Celtic folklore and Christian traditions. Both Celts and Christians believed that the tree provides those close by with protection against various evils, especially witches. Hence, rowan branches were often fastened to the lintels of cottage windows and doors as well as over barn doors (for witches especially loved the prank of souring cows' milk). Rowan trees were also planted in cottage and church yards for protection. The fact that rowan trees often grow in mountainous areas was also thought to drive witches from their favorite habitat, although the real reason seems to be that browsing animals, especially deer and elk, love rowan saplings and so quickly devour those growing in the valleys.

During Candlemas (February 2—the traditional midpoint of winter) residents of the English Westlands (Thomas Hardy country) place crosses made of rowan twigs tied with red yarn about their houses to banish the dark of winter and welcome the coming light and warmth of spring. In Ireland the rowan tree is associated with St. Brigid, the patroness of Ireland, whose feast day is February 1st.

The mountain ash lives so long, at least in part, because it has no pests or diseases that assail it. Deer, however, do browse on its leaves—a point to keep in mind if you plan to grow a mountain ash in your yard. Whether for cultural or botanical purposes, the mountain ash is a native tree well worth considering for our own properties, both to add beauty and provide for wildlife.



Sources:

http://pss.uvm.edu/ppp/articles/mtnash.html
https://treesforlife.org.uk/forest/mythology-folklore/rowan2/

Acknowledgement:
First published by *Hey, Smokies!*, 2017.

Image courtesy of: Treesdirect.co.uk

Bats in Tennessee

Bats may be the least appreciated animals occurring in Tennessee, even though as consumers of enormous numbers of insects, they rank among the most beneficial.

Many people incorrectly believe that bats are blind, try to become entangled in human hair, are dirty and dangerous, and otherwise do things that drive people “batty” or cause them to have “bats in their belfries.” Being referred to as an “old bat” or a “dingbat” is less than complimentary. Actually, most bats are highly beneficial, intelligent, extremely interesting, and possess fascinating abilities, such as homing instinct and the ability to navigate by echolocation in complete darkness.

Bats, like human beings, are mammals, having hair and giving birth to living young and feeding them on milk from mammary glands. Nineteen species of bats occur in just the eastern United States.

Bats are the only true flying mammals and their maneuverability while capturing insects on the wing is astonishing. Bats belong to the mammalian order Chiroptera, which means “hand-wing”.

The bones present in a bats wing are similar to those of the human arm or hand, but finger bones of bats are greatly elongated and connected by a double membrane of skin to form a wing.bat

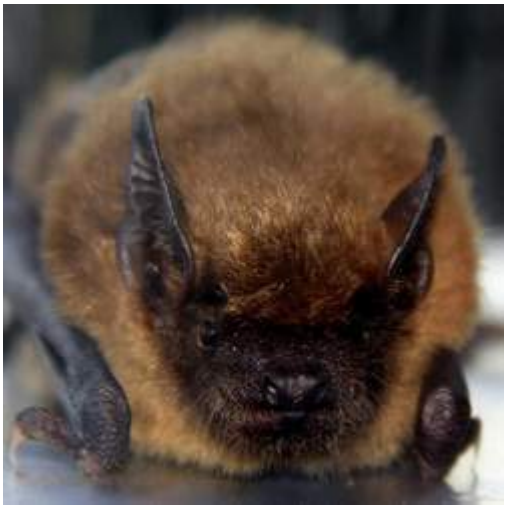
Bats are primarily nocturnal, although many can be seen flying about in the early evening, sometimes even before sunset. Occasionally, especially on warm winter days, they can be observed flying in daylight hours.

Bats have good eyesight, but most depend on their superbly developed echolocation system to navigate and capture insects in the dark. Bats emit pulses of high- frequency sound (most are not audible to human ears). By listening to the echoes reflected back to them, bats can discern objects in their path. So acute is their ability to echolocate that they are able to avoid obstacles no wider than a piece of thread and capture tiny flying insects, even in complete darkness.

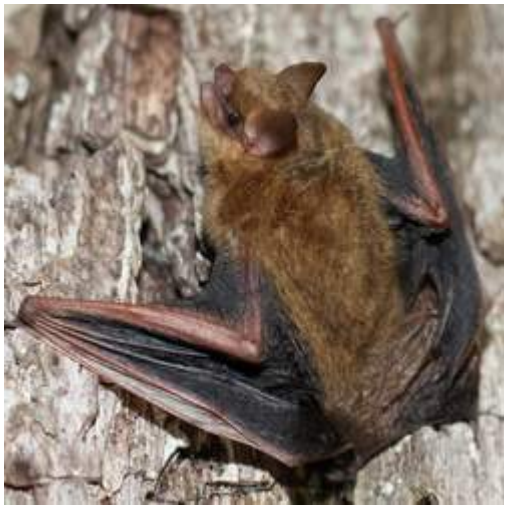
All bats in Tennessee feed almost exclusively on insects and thus are extremely beneficial. In fact, bats are the only major predators of night-flying insects. A bat may eat more than 50% of its own body weight in insects each night (approximately 3,000 or more insects).

As people discover bats are beneficial and not dangerous, more and more attempt to attract them in much the same way they attract certain songbirds—namely, by placing bat houses in their yards to take advantage of the bats’ insect-eating habits. Information on bat houses and other bat related items can be found on the internet.

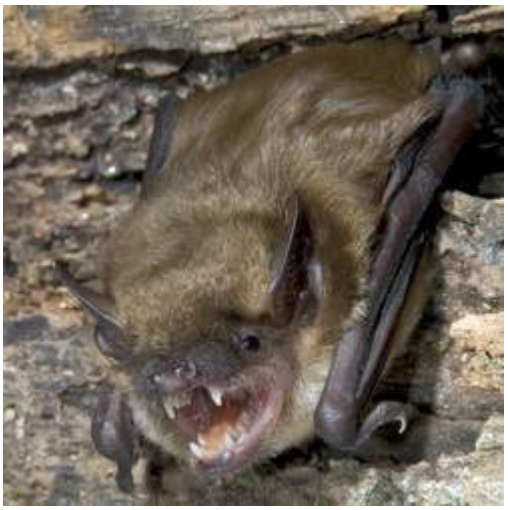
Dramatic reductions in populations of bats have occurred in recent years in the United States and worldwide. Although owls, hawks, raccoons, skunks, and snakes occasionally may prey on bats, few animals consume bats as a regular part of their diet. Humans seem to be the only animal having a significant impact on the populations of bats. Adverse impacts by humans include destruction of habitat, direct killing, vandalism, disturbance of maternity and hibernating colonies, and use of pesticides (on their food- insects) and other chemical toxicants.



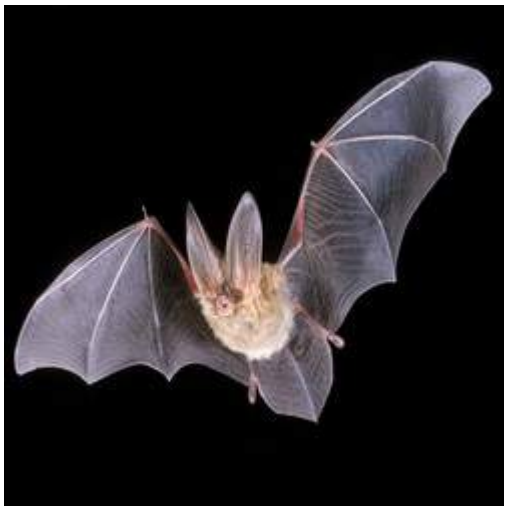
Little Brown Bat



Tri-Colored Bat



Big Brown Bat



Townsend's Big-Eared Bat

Hoary Bat

Some Native Plants that Attract Bats:

Wild Onion, *Allium cernuum*

Columbine, *Aquilegia canadensis*

Pale Indian Plantain, *Arnoglossum atriplicifolium*

Wild Indigo, *Baptisia spp.*

Evenig Primrose, *oenothera biennis*

The 2021 Sevier County Fair was a Huge Success!

Dear Wild Ones Members,

The 2021 Sevier County Fair is done and dusted, and we are happy to report that the fair experienced above expected results in both attendance and revenue. This is in no small part due to the support and loyalty of its sponsors, such as Wild Ones Smoky Mountain Chapter. The Floral Department was its usual beautiful environment and the poster with the Floral Department Sponsors added colorful, attractive signage. Note that that poster will be in place for all the activities held at the Fairgrounds throughout the year offering plenty of exposure and thanks to our organization.

Your sponsored award for “Best in Tennessee Native Plants ” in the Floral Department went to Karen Matthews for a great example of Ironweed. Well done, Karen!

Thank you so much for your monetary support of the Sevier County Fair Floral Department. As a member of the Sevier County community, Wild Ones is greatly appreciated.

Sincerely,

Marti Agler for The Sevier County Fair Floral Department

A Plant Swap Thank you!

Thanks to all the chapter members who assisted with the Sixth Annual Plant Swap on September 25: Carl Parsons, Joan Falsone, Joanne Overstreet, Mark Sedar, Damon Steele, Guane Julian, Kay Goodwin, Veronica Brock, Marti Agler, Gerry Moll, Joy Grissom.

Particular thanks also go to the Sevierville Garden Club. It is always a delight to have those members present; the Sevierville Department of Parks and Recreation, particularly Joe Mattern and Bob Parker; the Sevier County Area Master Gardener Association, especially members Pam Barron and Steve Greenwell for their unceasing help with setup, sales, and cleanup; also, Marianne Wilson of Wilson Landscaping and Gerry Moll of NPRS for plant donations. We are very fortunate in our friends and very much appreciate their support and encouragement.

The Plant Swap is not a fundraising event but a Community Service Project. We did, however, make $126 in revenue for tickets, bucket, and donations. The opportunity to help educate and encourage others to give native plants places in their gardens is at the very core of our mission. What a gorgeous day we had to do just that!

We have some suggestions from attendees at the swap to help make this project an even greater success next time!

Wilson Garden Design

LANDSCAPE DESIGN FOR CARBON SEQUESTRATION

Presented by Marianne Wilson
For the Wild Ones – Smoky Mountains Chapter
August 4, 2021

Natural cycle of carbon dioxide within plant and soil microbial communities –

- Trees, shrubs and perennials pull in carbon dioxide (CO_2) from the atmosphere through photosynthesis where it is stored in plant tissues and travels down their root systems and into the soil
- CO_2 is mixed with water to create carbon sugars (liquid carbon) which fuels the plants
- Liquid carbon gets stored in the soil which also fuels mycorrhizal fungi, bacteria and other microbes – soil microbial communities
- This creates a vast, and healthy, network in the soil biome
- The healthy soil biome allows for the uptake of nutrients (such as nitrogen and phosphorous), and micronutrients, into trees, shrubs and perennials
- This process of carbon intake, transfer and storage is how humus is produced and is known as "humification"
- Humus is necessary for healthy gardens due to its porous quality allowing for air pockets, nutrient-exchange and water-absorption

Carbon sequestration – "Carbon sequestration is the long-term removal, capture, or sequestration of carbon dioxide from the atmosphere to slow or reverse atmospheric CO_2 pollution and to mitigate or reverse climate change."

Carbon-focused land-management techniques:

Biophilia / Biophilic Design –

- Concept within building/design communities to increase the connection between ppl & nature in areas where we live and dwell
    - Permaculture – a set of landscape design principles using whole systems thinking

- Originally coined “permanent agriculture” which later shifted to “permanent culture”
- An epitome of Biophilic Design – utilizing every natural resource in our immediate vicinity – to not only benefit us but to be of equal benefit to organisms in our natural environments (arthropods and wildlife)
    - Beneficial to use a minimum of 70% native, and host, plants to our area
    - Example of design –
        - Adjacent to home - Understory native trees / fruit trees
        - Moving outward - Canopy trees such as Oaks, Tulip Poplars, Maples, Bald Cypress, etc.
            - Keeps home cool during summer months
            - AND they are carbon super sequesters
            - Oaks are Hosts with the Most – larval host plant
        - Moving outward - smaller fruit varieties, vegetable gardens, woody shrubs, wildflower gardens, native plants for pollinators & wildlife
        - Water catchment systems – rain barrels / Water Hogs (be mindful of hydrostatic pressure)
            - Detain, retain and store rainwater
        - Composting

- Increase Functional Diversity of Plants
    - Plant functional diversity supports the soil microbial ecosystem, which is key to long-term soil carbon storage
    - Plant a minimum of 70% native, and host, plants to our area
- Leave forested areas untouched
    - One acre of temperate woodland can pull down/sink/sequester 1000 lbs of carbon per year
        - Forests are super-sequesters
    - When removing invasive honeysuckle and privet, pile and compost the removed material and then replace with native woody shrubs/understory trees

- Minimize soil disturbance
    - In temperate climates, there can be more carbon stored in soil than in the plants and atmosphere
        - No-till Organic Farming/Gardening (even on small plots of land)
        - Avoid the use of bulldozers, skid steers and heavy grading
        - Utilize cover crops when practicing rotation to protect & enrich soil, retain soil moisture and provide for pollinators/wildlife
            - Purple prairie clover – straight species native
            - Legumes such as Hairy Vetch
                - Cool-season legume which adds nitrogen to soil for summer crops
- Plant and Maintain as much Biomass as possible on your property - Trees/Woody Shrubs/Gardens/Pocket Meadows/Prairies/Grasslands instead of grassy lawns
    - Beneficial to use a minimum of 70% native, and host, plants to our area
    - Keep biomass on your property
        - Composting – brush, limbs, twigs, grass, food, etc.
        - Fallen trees – leave them there
            - They provide shelter and nesting sites for native pollinators & wildlife
            - Or, cut the fallen tree into manageable sizes, stack it in a pile and leave it there
            - Invest in a woodchipper and use the woodchips as a natural mulch after two years of being seasoned
                - Co-op the woodchipper between you and friends and share the equipment
                - Unseasoned woodchips steal nitrogen from the soil
        - Fallen/pruned limbs and twigs – pile them in an area to provide shelter and nesting sites for pollinators & wildlife
- Build decks and structures around existing trees
    - Use timber as opposed to steel for construction
- Use local/reclaimed materials

- Avoid carbon emissions that come with traditional concrete and cement
    - Concrete is the most widely used material in existence and has a significant carbon footprint
    - Cement substitutions are:
        - Flyash – Pulverized Fly Ash (PFA)
        - Slag – Ground Granulated Blast-furnace Slag (GGBS)
        - Silica fume
        - Limestone fines
        - Glass Pozzolan
    - Alternatives to concrete walkways/driveways:
        - Permeable pavers
        - Crushed limestone #10 (available in our area)
        - Decomposed granite (not available in our area)
        - Pea gravel
- Green roofs / Green walls
- White painting – a new term to describe painting our roofs, and walls, white to reflect the sun
- Encourage city and county municipalities to plant native trees/install green roofs/plant linear tree forests, etc in urban areas

Resources:

- Pathfinder app – www.climatepositivedesign.com/pathfinder
    - This is a Landscape Carbon Calculator being used in landscape design projects which calculates the amount of carbon sequestered in addition to the length of time it will take to offset the project's carbon footprint
- iTree app – www.itreetools.org
    - Created by the U.S. Forest Service which details amount of carbon sequestered by a catalogue of trees once they reach maturity

WILD ONES SMOKY MOUNTAINS CHAPTER

BY JOANNE OVERSTREET

On April 11, 1995, Wild Ones (National), became a Section 501(c)(3) nonprofit for educational purposes. The organization slowly grew and today boasts over 5,000 members. As the organization grew, it added chapters throughout the country. Tennessee currently has three chapters and a seedling group that is a chapter just starting out to complete the requirements to be chartered.

Wild Ones Smoky Mountains Chapter promotes environmentally sound landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities. This chapter started in the spring of 2015 and chartered that August. The chapter quickly became involved in education and participation in the community.

Our community activities have included monthly programs by knowledgeable guest speakers, an annual plant swap, sponsorship and participation at Wilderness Wildlife Week, a native plant booth at the annual spring plant sale sponsored by the Sevier County Master Gardeners, and as a sponsor and exhibit at the Sevier County Fair. We also sponsored Miranda Sanders' Girl Scout Gold Award project at Walters State Community College.

To further interest in native plants, which at the time were difficult to obtain, the chapter held its first Plant Swap in the fall of 2016. The annual Plant Swap became an important teaching, socializing and inspiring venue for local native plant lovers. It also became an excellent opportunity for the people of our community to learn about the Wild Ones organization.

Since that initial start, the chapter has held the Plant Swap every year and will celebrate its Sixth Annual Plant Swap this year on Saturday, September 25, 2021 from 9am to noon at the Gazebo in Sevierville on Bruce Street. This year we will be adjacent to the Sevierville Farmers Market. As the host of the Plant Swap, it is exciting to have the City of Sevierville Parks & Recreation Department as our co-sponsor.

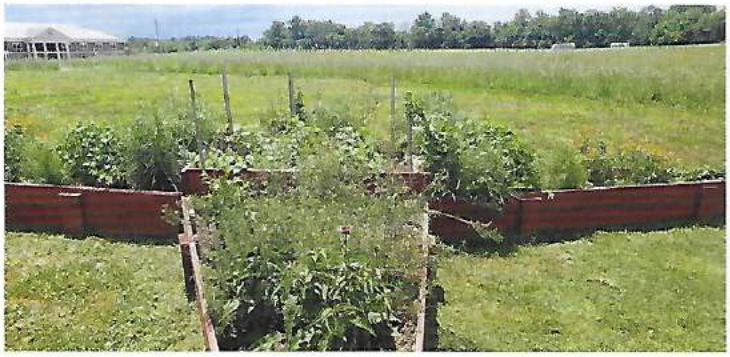
Come and join us! Bring a plant to get a plant. If you don't have plants, don't fret. You can purchase tickets to buy plants. Additional swap credit is given for natives. Please do not bring any invasive plants. For additional information and details, email Marti at martiava@att.net or call Joan at 423-487-2571.

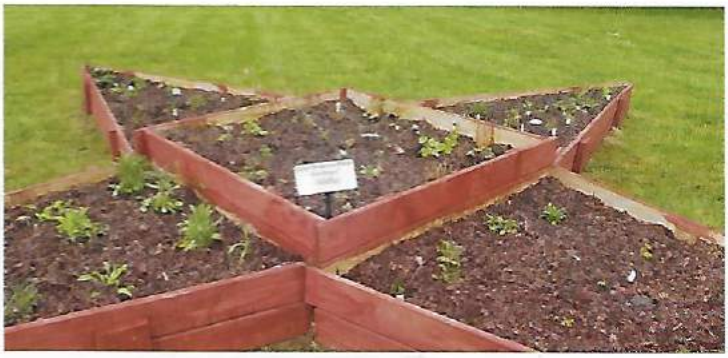
Our Wild Ones chapter is dedicated to educating and advocating for biodiversity in the Great Smoky Mountains. We offer a variety of programs and events throughout the year that teach and encourage sustainable landscaping and gardening practices using plants that are native to our Smoky Mountain region. Membership is vital to the ongoing success of our chapter. We invite you to attend our programs and to become a member! To obtain a membership packet, please contact Marti at martiava@att.net.

Wild Ones serves as a resource for private individuals, schools, commercial property owners, and community decision makers as they move toward ethical choices in land use and in the redefinition of current guidelines and ordinances affecting our landscape. Because we are a "plants-roots" organization, our organizational goals are accomplished through local chapters and their individual members.

Healing the Earth one yard at a time. ◆

Wild Ones also installed a native garden at the Boys and Girls Club facility in Pigeon Forge, provided native trees for planting at the Sevierville Arboretum, provided native plants for the garden at the Eagle Rescue site, participated in Earth Day celebrations at the Ripley's Aquarium, and supported Pitman Center Heritage Days.





MIRANDA SANDERS EARNS GIRL SCOUTS OF SOUTHERN APPALACHIANS' GOLD AWARD

BY LAUREN MILLER AND JENNIE LOU HARRIMAN

High school Girl Scouts earn highest honor by addressing community issues.

The Girl Scouts of the Southern Appalachians have announced the 2021 Gold Award recipients in East Tennessee. One of the 29 recipients is from Sevierville: Miranda Sanders.

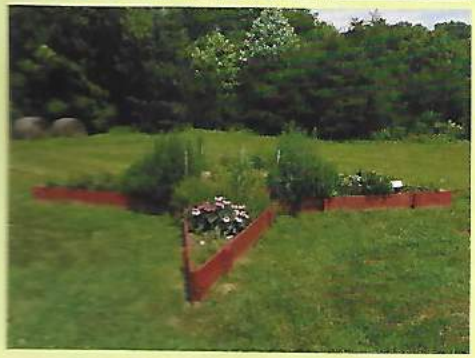
Sanders made a pollinator garden to address the decline of pollinators. The garden also addressed the negative effects of exotic plants on native plants and the local ecosystem.

Since 1916, thousands of Girl Scouts across the country have earned the Girl Scouts' highest honor, now called the Girl Scout Gold Award, for demonstrating extraordinary leadership and making sustainable change in their communities. Nationally, only six percent of all eligible Girl Scouts achieve the Gold Award.

"Our communities have been positively impacted by the vision, leadership and dedication of each of our Gold Award girls," said Lynne Fugate, CEO of the Girl Scouts of the Southern Appalachians. "This high honor required hours of hard work and the leadership skills that they have been developing during their years as a Girl Scout."

The Girl Scout Gold Award represents exceptional achievement in leadership development, positive values and service. Only Girl Scout Seniors and Ambassadors are eligible for the Gold Award, and before they can pursue it, they must meet prerequisites, including completing a Take Action Project or earning the Girl Scout Silver Award, which entails a girl-led project to improve the neighborhood or community.

At a minimum requirement of 80 hours, most girls spend between one and two years on Gold Award projects. A Gold Award Girl Scout's achievements prime her for the fast track when it comes to college admissions and make her an outstanding candidate for academic scholarships and other financial awards. In addition, Gold Award Girl Scouts who join the armed services even enter at a rank above other recruits. ◆



Miranda's pollinator garden at Walter's State Community College

Miranda Sanders has been a dedicated Girl Scout for 12 years. She previously earned a Bronze and a Silver Award.

Family and friends helped Miranda build the raised bed for her pollinator garden at Walter's State Community College. Her father's skills came in handy–he is a carpenter who works in the National Park restoring cabins in Elkmont. The compass rose bed and the kiosk are mostly made from reused materials. The compass even points in the proper directions. This was an excellent bonding and learning experience for father and daughter.

"It was a rewarding challenge to complete my Gold Award project during my busy junior and senior year in a pandemic," said Miranda. "It is an honor knowing the project is going to be part of my legacy and commitment to my community. I learned so much about myself, and the environment and am grateful for all the opportunities I had as a Girl Scout."

Native Plant Rescue Squad gathered the plants, and Wild Ones Smoky Mountains Chapter purchased the plants, and assisted Miranda with plant selection and planting.