

The Newsletter of the Friends of Mt. Agamenticus

Fall 2022

THE UNMASKING OF COLOR

Just as young trick or treaters unmask to reveal their happy Halloween faces, so do trees and plants in a glorious Maine autumn. The leaves do not so much "turn colors" as "reveal colors" already present.

Trees and plants have color because they produce chemicals called pigments. A pigment is a molecule that has a particular color and can absorb light at different

wavelengths. The four pigments are: chlorophyll (greens), carotenoids (oranges), xanthophylls (yellows), and anthocyanins (reds/purples/ blues). The same colors we eat in the form of vegetables and fruits.

Plants are beings of light. They sense it to control their growth and responses to the environment. When the longer days of springtime arrive, chlorophyll, the green pigment, is produced in tiny structures in plant

cells called chloroplasts found in the photosynthetic tissues of leaves. Summer sunlight and temperatures spur leaves to make more chlorophyll to accelerate photosynthesis.

Carotenoids and xanthophylls are also elements of the photosynthetic process. They increase the light-harvesting and photo-protective capacity of the leaf. The light energy collected by carotenoids go through a different pathway than light collected by chlorophyll, so carotenoids are known as accessory pigments. They are hydrocarbons, while xanthophylls are



oxygenated to protect the photosynthetic apparatus from photooxidative damage and aging.

Red hues called anthocyanins, are water-soluble pigments produced in the cytoplasm of the photosynthetic tissues. Anthocyanins act as a "sunscreen" protecting cells from light damage from high-light stress. Even in autumn, red pigments

> occur on the sunniest side of the tree while the shaded leaves can still be green. Anthocyanins enable trees to recover any last remaining essential nutrients like sugars and nitrogen to be stored for winter survival. A rainy, overcast autumn won't produce as much red foliage since added protection from high-light stress isn't needed.

Abundant sunlight, dry weather, and above-freezing temperatures will increase sugar concentration in tree sap causing release of more

anthocyanins, hence, more vibrant-colored red leaves. Often, a tree under stress or with poor nutrient levels will increase anthocyanins. Drought conditions will cause leaves to fall earlier.

Fewer hours of sunlight and colder temperatures signal trees to prepare for winter. Chlorophyll production ceases and the existing cells begin to decompose. As green color disappears, the other pigments are finally unmasked and the splendor of autumn foliage becomes visible.

Leave the Leaves



Keeping trails dry and visible can be a challenge this time of year, but here are a few of the reasons why leaves are left on our trails:

- · Leaves can help insulate against the effect of constant frost/thaw cycles that can cause erosion and trail degradation. · Fallen leaves break down quickly, which improves soil health.
- · Piling leaves along the sides of trails can prevent water from shedding off, causing more problems down trail.

We know that freshly fallen leaves can be a nuisance this time of year, but the natural decomposition process is short, adapting to current conditions can give trail users an opportunity to slow down, and paint blazes and the strategic placement of branches help keep visitors on track in the meantime!

Trails at Mount Agamenticus are managed trails! Want to help us out? *LEAF* the work to our Crew and Trail Adopters or consider adopting a trail yourself! We will work with you to identify important drainages and boardwalks to clear leaves from, but in general leaving the leaves on the trails is more sustainable in the long run. More information on becoming a Trail Adopter can be found at *Agamenticus.org*.

Annual Mount Agamenticus Trail Challenge

The Annual Trail Challenge made a comeback this season with over 100 participants virtually and inperson! We are so thankful for the ongoing support of this event, from participants and volunteers, to our donors and sponsors. That support continues to show us that outdoor spaces like Mount A are invaluable to the physical and emotional health of our greater community. This nontraditional "race" brings people from all over the region together to get outside, set personal wellness goals, and support the beautiful resource we have in Mount A. Mark your calendars for next year's Challenge, always the third Saturday in September!





FRIENDS OF MOUNT AGAMENTICUS SUMMARY FOR 2022

n 2022, the Friends of Mount Agamenticus volunteer stewardship and advocacy group has:

- Donated hundreds of hours of time
- Received almost \$15,000 in donations
- Helped the Mount Agamenticus Conservation Program host over 50,000 visitors

Some highlights this year include the 2nd Annual Plein Air Paint Out event, staffed an entire season of docents for the Learning Lodge and on-going care of the Pollinator and Native Plants gardens. The Friends of Mount Agamenticus have also assisted with annual Visitor Use Surveys, grants to renovate trails/signage and recreational events hosted by Mt. A such as the 6th Annual Trail Challenge.

The Friends of Mount Agamenticus would like to thank the following for their amazing support in 2022 and beyond:

The Fabulous Find (Kittery) · York Rotary · The Center for Wildlife York Art Association · Kennebunk Savings Bank · Stonewall Kitchen Eldredge Lumber · Partners Bank · Anthony's Food Shop Hannaford Supermarkets (York) · My Winey Sister Area artists and all the dedicated volunteers, community members, artists, corporate donors, local businesses and other individuals who love and support Mount Agamenticus!



Our Vision: Inspiring stewardship of our surroundings; we envision a community that is educated about and inspired to protect the Mount Agamenticus Conservation Region.

Our Values:

We are guided by the belief that all people should have the opportunity to connect with and enjoy the outdoors, clean water, and native habitats in a healthy and balanced ecosystem.

Our Mission:

To establish Mount A as a beacon for understanding our need to actively manage and protect our natural resources; guiding our community to explore the relationships between people and nature.

Parking & Restroom Project Update

Construction has begun on the Mt. Agamenticus Parking and Public Restroom project! This project is a partnership between the Town of York and York Water District and was approved by voters in 2020. Completion is expected by July 2023. Road, parking, and trail closures are expected during this time.

The parking project includes the construction and expansion of both the summit and base parking lots in addition to a satellite lot along the summit access road. This will greatly improve public safety, congestion, and the flow of traffic. The public restroom upgrades include the construction of composting toilet facilities located at both the summit and base. These will replace the portable facilities that currently exist at these locations. Composting toilets were selected due to the limited water supply and flow impacting water capacity for a flush system at the summit and comes with added environmental benefits.

During construction visitors can expect the Mt. Agamenticus Road (road to summit) to be closed to all public access, including pedestrian and bicycle traffic. Limited parking will be available at the base and visitors will be temporarily redirected around construction to a trailhead nearby.

More information about this project, planning documents, maps and more can be viewed on the Mt. A website at: agamenticus.org

Tips for Saving Seeds from Your Garden



Many beginners find that the easiest seeds to collect and save are tomatoes, peppers, beans and peas because they are all self-pollinating with seeds that are easy to prepare prior to storage.

The best way to store seeds is in an airtight container in a cool, dry and dark place during the non-growing months.

You may want to separate different seeds using small envelopes prior to enclosing them in larger containers; several envelopes can be stored together in a Mason jar with a tightly closed lid, or a Ziploc bag with all of the air removed. To absorb any moisture that occurs, you can add a small packet of desiccant material, such as uncooked rice or powdered milk, inside the jar or bag (not touching seeds).

Be sure to label your containers with the name, variety and date the seeds were collected; you can also include notes about growth habits, production or any problems encountered from pests, etc. Many flower seeds and herb seeds can also be collected and saved in the same manner.

If you select open-pollinated varieties, they will produce seeds that ensure that the next generation of plants, and their seeds, will be similar to the ones you originally grew.

Plan to use your saved seeds within the next growing season following collection as their viability will decrease as time goes on.

For more information:

Maine Organic Farmers and Gardeners Association, https:// www.mofga.org/resources/seeds/saving-seed/ University of Maine Cooperative Extension, https://extension. umaine.edu/publications/2750e/



Lunar Eclipse 11-8-22

The last total lunar eclipse for three years will occur on November 8, 2022, with the next occurring on March 14, 2025. At 4:09 a.m. EDT, the Moon begins to enter Earth's umbra and the partial eclipse begins. By 5:17 a.m. the entire Moon is in the Earth's umbra.

Oriental Bittersweet

Oriental bittersweet is an aggressive perennial, and considered a serious invasive species. It kills trees and shrubs by girdling trunks and stems and damages bark and underlying tissues. It chokes out native plants by smothering them with dense foliage and forms continuous blankets over entire stretches of woodlands. Nevertheless, this weedy, woody, deciduous vine is still sold and planted as an ornamental.

Sought after in autumn for its attractive orange and yellow berries used in outdoor window boxes and seasonal decorations, humans inadvertently increase the spread of this invasive. Seeds remain viable even after drying and can germinate once the decorations are discarded. Birds eat the berries and they too cast seeds far and wide in their droppings, planting new vines.

Try cutting the strangling stems at ground level to free trees and shrubs from the aerial stems. Vigilance is required for cutting new growth from underground roots until they're exhausted.

Oriental bittersweet (Celastrus orbiculatus) is native to China, Japan and Korea, and was brought to this country in the mid-1800s.





Species Spotlight Great horned owl *Bubo virginianus*



This image is of Gaia, an injured and non-releasable great horned owl ambassador at Center for Wildlife, Cape Neddick, ME.

Did you know you can often hear our largest resident owls calling this time of year? Great horned owls have a deep and iconic call that sounds like, "I am a great horned owl!" Great horned owls are also Maine's first nesters of the season and may call from September to early March. While they don't start pairing off until January, their calls can be heard throughout fall as adults push youngsters off their territory. As winter approaches, males will begin to advertise themselves and potential nesting sites.

Great horned owls are all over North America and can be found in deciduous, coniferous, and mixed forests. They prefer to nest high up in tall trees where a branch meets the trunk of the tree. Instead of building their own nests, they reuse nests of red tailed hawks, crows, or other large birds. Great horned owls may also nest on rock ledges, nest platforms, or power line towers when suitable nesting habitat isn't available. They don't reuse their own nesting sites however, because of the degradation that occurs to the nest throughout the spring and summer. Once a pair has chosen a nesting site the female will lay 1 to 3 eggs between mid January to early March and then allow the eggs to incubate for about a month. During this time, her supportive mate is

beginning his fatherly duties of catching food for the family and protecting the nest.

Keep an eye and ear out for your wild neighbors this winter! These early nesters give us a glimpse towards the upcoming spring while we're all bundled up in our coats, hats, and mittens!

HALLOWEEN DÉCOR CAN BE DEADLY FOR WILDLIFE

A t this time of year, animal and bird rehabilitators receive numerous animals caught in and injured by Halloween decorations, from songbirds to chipmunks and everything in between. It may be time to reconsider how you decorate for the holiday next year in 2023. Here are a few things you can do to help our wildlife:

- Don't use fake spider webs or other decorations made of entangling fibers on the outside of your home. Wild animals and birds can easily get trapped and die. It also causes intestinal damage in domestic cats.
- Avoid decorations with loops or closed circles. A foraging animal can inadvertently put its head through a loop or circle and choke itself.
- Avoid decorations with small, dangling, edible-looking parts, including fake berries.
- Strings of lights can become snare traps for adult male deer that get them stuck in their antlers. Avoid hanging lights or decorations in areas where deer pass. Other dangers for animals to become entangled in are netting, plastic costumes, clothing and other materials.
- Candy, and the plastic and foil it's wrapped in, can also be a hazard for animals. Don't leave candy out where wildlife may find it, and dispose of all candy wrappers properly.
- Carved pumpkins may be attractive to wildlife as food, so do not pre-soak your pumpkins in bleach solution. The bleach will kill wildlife who seek out nutrition prior to winter.
- Be alert for nocturnal wildlife while trick-or-treating. Avoid cutting across lawns and through brushy areas to avoid accidental encounters with your wild neighbors.
- Drivers on Halloween night know to be on the alert for children, but we encourage you to also be aware of wildlife that may be scared out of hiding by all the unusual nighttime activity.



This photo by Marin Humane shows an owl who had gotten caught up in some decorative Halloween cobwebs outside of a residence in Mill Valley, Calif. (D. Stapp/Marin Humane via AP)

The Friends of Mount Agamenticus

The Friends of Mount Agamenticus is a volunteer advocacy and stewardship group for the Mount Agamenticus Conservation Program. We assist program staff in carrying out educational, interpretive, community outreach, and public use objectives without compromising the integrity of the region's sensitive ecological habitat.

We are currently seeking Friends that can assist with any of the following tasks:

- Orienting and coordinating with new volunteers
- Researching fundraising opportunities
- · Writing grants and newsletter articles
- Developing and managing website and social media

Please email friends@agamenticus.org if interested.

To learn about additional Mt. A conservation opportunities, please visit our website agamenticus.org.

Scan Here To Like Mount Agamenticus Conservation Region on Facebook!



Newsletter written and designed by volunteers at the Friends of Mt. A.