

STONY KILL ALMANAC

Fall / Winter 2021





THE MISSION OF STONY KILL FOUNDATION IS...

To educate the public and cultivate environmental stewardship through interpretation of the rich historical, environmental and agricultural heritage of Stony Kill Farm.

ALMANAC EDITORIAL TEAM

Erik Fyfe, Erin Moseman, Salita Signorelli, and Yvette Valdés Smith

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**Cover photo by Kara Cerilli*

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From the Executive Director



After a busy spring and summer of festivals, summer camp, farming, and field trips, things slow down at Stony Kill in the fall and winter. The hay is stacked and ready for feed. Shorter days yield afternoon sunsets across the fields. Scenes of autumn foliage set the farm aglow before the coming of winter snow.

Fall and winter on the farm is a time to reflect on the successes of the past year and to plan for the year ahead. I am so excited by all the farm improvements and new programs we have been able to bring forward this past year. We are so grateful for the community of volunteers, partners, and supporters who contribute to making the farm the incredible place it is. Thank you for being part of Stony Kill. I look forward to seeing you on the farm this winter and in the New Year.

A handwritten signature of Erik Fyfe in blue ink, written in a cursive style.

Erik Fyfe
Executive Director
Stony Kill Foundation

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Nature's Milestones

By Tim Stanley

Mid-Late October - The woodchucks inhabiting Stony Kill's fields go into hibernation and will sleep for the next six months.

Mid October - Being seasonally polyestrous, sheep breed when the nights grow longer and days are shorter. This ensures lambs will be born at an optimal time when the grass begins to grow in the spring.

October 12th - On average the first fall frost occurs on this date, ending a 121 day growing season. Gardeners should apply mulch before the winter snow to protect overwintering perennials and herbs.

October 20th - Full "Hunter's" Moon

Early November - Look for the scraggly yellow flowers of Witch Hazel in the forest understory. This is the year's last flowering plant.

November 19th - The Full "Beaver" Moon will slip into the earth's shadow in the pre-dawn hours for a near total lunar eclipse.

Late November - Frogs and turtles bury themselves in the mud at the bottom of the many vernal pools of Stony Kill Farm, beginning hibernation far below the winter ice.

December 13th-14th - The Geminid Meteor showers put on a celestial show. The two day event peaks in the predawn hours of December 14th when 60 to 120 slow graceful meteors can be seen per hour.

December 21st - The Winter Solstice marks the first day of winter and shortest day of the year in the Northern Hemisphere.

Humans of Stony Kill



I walk every day to connect to nature on the farm. I'm inspired by the sounds and the smells and the colors. It reminds me of my family in Ireland. **Tara O'Grady**

We like to explore the trails and learn new things about nature. **AJ & Destan
Alberto & Dominique Germain**



WHAT DO YOU LIKE TO DO AT STONY KILL?



We like to walk around the farm and go for runs on the trails. We had a great time at Harvest Fest this year!

Emily Hague & Matt Decker

*I joined the farm because of the bees!
I'm a second year beekeeper.*

Ernie Coon





Stony Kill Implements Rotational Grazing

By Tim Stanley

A walk down the farm lane is sure to reward any Stony Kill visitor with iconic pastoral images of cattle and sheep grazing lush green pasture. Perhaps this year you have noticed a change out in the pastures at Stony Kill and are curious about it?

This past spring, Stony Kill Foundation implemented a new system of rotational grazing to promote livestock health and provide several environmental benefits. Supported by the Dutchess County Soil and Water Conservation District, the Foundation used portable fencing to partition the 12-acre Stony Kill pasture into smaller grazing paddocks. Rather than grazing the entire pasture at once, the animals are now moved through the paddocks to heavily graze each section before being rotated to the next. This model manages the animals to eat more evenly over the pasture, it spreads manure more evenly, and it improves forage quality and soil health. The implementation of a rotational system is one way the farm models sustainable agricultural practices.

Rotational grazing mimics the symbiotic relationship between plants and wild grazers that developed over eons. The animals intensively feed in an area for short periods of time and keep moving across the landscape to avoid predators. Grasses and

legumes respond to this rest period with renewed vigor, increased energy reserves and deepened root systems. At Stony Kill, the cows and sheep graze each subsection for approximately 2-3 weeks, allowing each area to “rest” for 10-12 weeks. The grass responded this summer by growing more densely – even outcompeting less desirable weeds and reversing the encroachment of invasive plants.

Rotational grazing has wide-reaching environmental benefits, including preventing erosion and reducing agricultural run-off because root systems in the pastures are healthier. Healthy pastureland increases the soil’s ability to sequester carbon, improves water quality, and benefits the habitat of grassland birds. This system also allows animals to graze for more weeks of the year. The longer they are able to graze and feed themselves, the less feed they need from the farmer, meaning less fuel is used to bale and transport hay.

There are far-reaching benefits to the farm livestock beyond just having a lush food source. The rotational grazing system reduces exposure to microorganisms and other pathogens and disrupts parasite life cycles, resulting in improved animal health and well-being. Plus the animals get exercise, plentiful sunshine and fresh air, all leading to better quality of life.

Photo: Kara Cerilli





Catching a Swarm with Budding Beekeepers

By Andrew Buckland

Some of Stony Kill Farm's busiest residents are the honey bees who spend their days traveling the fields and forests, collecting pollen and nectar to sustain their colonies. Some of these colonies live in hives managed by the Stony Kill Beekeepers Association, while others are periodically discovered in new locations around the farm. This past June, a group of Stony Kill summer campers had the good luck to spot a honey bee swarm near the Manor House, and it soon became an excellent learning opportunity for some of our budding beekeepers.

Swarming is one way a bee colony reproduces. Usually a queen produces additional worker bees or drones with the guidance of pheromones from the worker bees. When a bee hive is full, the worker bees will guide their queen to lay an egg into a special wax cell called a queen cup, where a new queen will be grown. Before the new queen emerges, a group of the worker bees divide and leave the colony as a swarm with the elder queen. 1/3 to 1/2 of the colony exits the hive in a matter of moments, pushing the old queen out of the colony. This swarm lands on a nearby object such as a tree or shrub, forming a cluster around the queen while scout bees look for a suitable place to establish a new colony. The exiting bees also take a surplus of supplies with them, filling their

stomachs with honey to support this process. Honey bee swarms are not aggressive. The bees are on a mission carrying precious resources and protecting their queen.

When the campers discovered the swarm this summer, I was called to action, and I enlisted the help of Stony Kill 4-H member, Tavin to learn the process of collecting a swarm. First, we suited up and approached the swarm, which had clustered on the branch of a bush. When catching a swarm, it is important to catch the queen or the bees will return to the original hive or leave altogether. I positioned a box below the largest mass, which typically holds the queen. Then, Tavin confidently shook the branch, dislodging the bees from the branch and into the box without harming them. With the queen and most of the hive in the box, a group of bees gathered on the rim of the box, fanning the queen's pheromones into the air to call the remaining bees into the box. We estimated the weight of the swarm at twelve pounds, or approximately forty thousand individual bees. With the swarm collected, we installed the bees in a new hive with a frame of brood, and the new colony remains in residence in our apiary (bee yard).

I was happy to share the experience with our junior beekeepers. They are learning that sometimes beekeeping requires us to act on bee time, which is unpredictable but exciting.





For the Love of Monarchs

By Stacey Lynch Adnams

I first began raising monarch butterflies with my daughter several years ago. We collected a couple tiny caterpillars, and watched as they munched through milkweed and formed green chrysalises flecked with gold dots. My screened porch became a giant butterfly house, and we released the adults into our small backyard pollinator garden.

Over the past 20 years, monarch populations have declined due to habitat loss, climate change and natural enemies. Rearing monarchs through community service projects is one of the strategies for improving their chances of survival. In 2020, Stony Kill began participating in Monarch Watch, a research and conservation initiative based out of the University of Kansas, and I started tagging and releasing monarchs as part of an effort to track their migration. Monarchs are the only butterfly species known to make a two-way migration, and they begin their inspiring journey south each September. Eastern Monarchs overwinter in Mexico's Sierra Madre Mountains and only 1% of those that migrate south make the trip successfully. Over the winter, they live off their fat reserves before beginning the trek back north in March.

It is always an exciting time when the first monarchs begin arriving

on the farm in the early summer. You can often find me obsessively checking the underside of milkweed leaves for eggs and caterpillars. Our campers and summer program participants love to observe the monarchs' lifecycle.



A monarch chrysalis with its distinctive golden diadem. The dots allow for oxygen exchange while the pupa matures.

After a female monarch lays her egg on the underside of a leaf, it typically hatches after 3-5 days. The larval caterpillar then dines on milkweed for 11-18 days before hanging from the underside of a leaf and forming a chrysalis. Then after 8-14 days, the adult butterflies emerge. Last summer, we raised and released 59 monarchs on the farm. Hopefully some completed the journey south for the winter.

There are many things we all can do to protect and support monarchs during their lifecycles. Planting native milkweed at home and in your community provides monarchs with a place to lay their eggs, a source of food for the caterpillars, and a waystation during their migration. And of course, maintaining outdoor spaces without the use of pesticides and insecticides is also a step in the right direction.



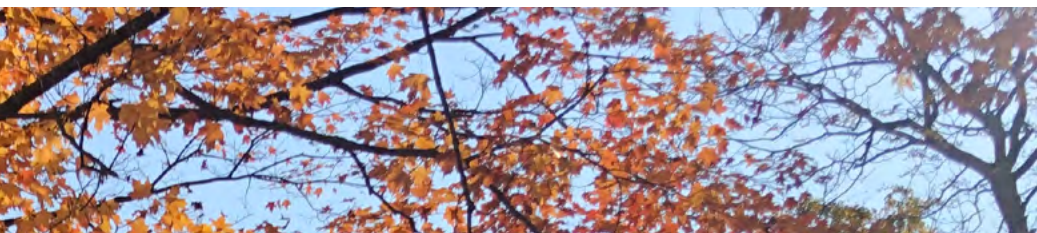


The Science of Fall Foliage

By Erin Moseman

Autumn is a season of color and change. Crimson leaves dance along the woodland floor searching for their resting place come winter. Shadows grace the treetops earlier each evening. And environmental cues such as shorter days and cooler temperatures trigger the process of colorful *leaf senescence* among deciduous trees. Simply put, senescence is the process when leaves stop producing food and chlorophyll and begin to break down. Green gives way to yellow and orange pigments (carotenoids and xanthophylls), and chemical changes in some leaves spur the development of red anthocyanin pigments. This colorful chemical change is a function of temperature, daylight, and water supply, and the process typically follows a predictable pattern.

Recently, ecologists have noted that changes in weather patterns associated with climate change have begun affecting fall foliage. Increased weather variability and extreme events like periods of drought or intense rainfall alter the timing, intensity, and duration of the foliage change, and predicting peak foliage is becoming more complicated. How these changes will affect our forests is unknown. The process of leaf senescence affects nutrient cycling for countless other organisms. Whether changes in this process will impact other woodland residents is likely but it remains to be seen.



Seasonal Scavenger Hunt

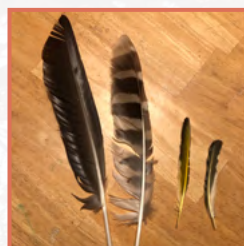
Be on the lookout for some of these sights on the farm. How many can you find?



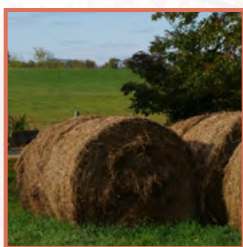
Deciduous Tree



Sheep



Feather



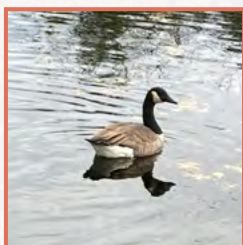
Hay Bale



Tractor



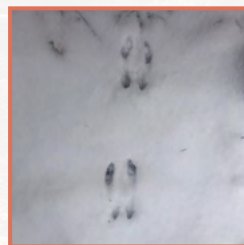
Moss



Bird



Evergreen Tree



Animal Tracks



Boxes for Bluebirds: New Nests for the Farm

By Salita Signorelli

Stony Kill Farm recently received the generous gift of 6 beautiful new bluebird nest boxes, built by Girl Scout Cadette, Emily Zhang. Thirteen year old Emily is with Troop 10049 based in Poughkeepsie, and for her Silver Award Project she reached out with an offer to add more birdhouses to the property. The Ralph T. Waterman Bird Club, who monitors and maintains the bluebird houses all over the farm, agreed to help her with guidance on materials, plans and installation.



Emily Zhang installing a new bluebird box at Stony Kill

Emily lives in the area and has long enjoyed visiting Stony Kill with her family and on field trips. Her family loves hiking and she was inspired by a desire to do her part to guarantee the conservation of the birds in her community.

Putting her leadership and communication skills to work, Emily successfully won a sponsorship with Home Depot for her supplies. She and her Eagle Scout brother David then spent a day with Susan Gilnack, Bluebird Committee Coordinator for the Waterman Bird Club, building 6 new nest boxes for Stony Kill's native bluebirds.

What a wonderful mark to leave on this special place. And now, every time Emily and her family return to the Bluebird Trail, she can look at each new bluebird box with pride and a sense of accomplishment for all of her hard work.

Volunteer Spotlight: The Delaney Family

By Yvette Valdés Smith

If you have spent time at Open Barn on the weekends, then you have probably had the pleasure of meeting the Delaney Family. Jennifer, Scott and their daughter Abby have been part of the volunteer team at Stony Kill since 2015, and Scott and Jennifer both spent a lot of time at the farm as children. Scott remembers fishing in the pond with his dad at age 5, and Jennifer remembers attending Harvest Fest with her family as a kid in the 70s. When they returned as volunteers, their daughter Abby became the Foundation's youngest volunteer at age 11. Now 17, Abby will gladly introduce you to all the animals by name, and share what she knows about how to care for them.



*Scott, Abby, and Jennifer Delaney
volunteering during Open Barn*

Both Scott and Jennifer say that seeing kids and families grow is the highlight of the experience here, as well as sharing their knowledge and love of animals with everyone. They have seen many changes here over the years and are especially thrilled with the heritage breed program, the re-opened Learning Center, and expanded education programs. The Delaneys dedication, hard work, and heart have helped thousands of people experience Stony Kill over the years. Come by for Open Barn between February and November; they will look forward to welcoming you!

Stony Kill Then and Now

Part III: The Rombout Patent

A recurring column on the history of Stony Kill - by Ed Cigna

In the early 1600s, the Dutch West India Company was hard at work trying to make the Hudson Valley region financially attractive. Most of the settlers who had come for the fur trade did not find the wealth they were seeking and many returned to Europe. The Dutch attempted to reverse this by establishing a patroon system, where individuals could claim a large parcel of colonial farmland and pay for about 50 people to populate it. Many of these farmworkers were "half-free" slaves, compelled to trade their labor for full freedom. The patroon system soon failed, and Britain overtook the Dutch, establishing complete control of the colony in 1674. The British then implemented a manor system that allowed individuals to claim ownership, through "patents," to large tracts of land. Patents were negotiated with indigenous peoples and declared formally by the British Crown. 14 patents were granted in what would become Dutchess County, and the first of these, the Rombout Patent, included the land where Stony Kill Farm is today.

The Rombout Patent was carried out by fur traders Francis Rombout and Gulian Verplanck (son of Abraham Verplanck) in partnership with Stephanus Van Cortlandt. In 1682, the three obtained a patent license from the colony governor to purchase an 85,000-acre tract of land from the resident Wappinger Nation. On August 8, 1683, they completed the purchase and signed an agreement with the Wappinger. The twenty two Wappinger who signed could not read or write in English, and each left their signature with an "X". Estimated in value at \$1250, the amount oaid included wampum, guns, gunpowder, cloth, shirts, rum,

tobacco, and beer, though it is not clear that the buyers and the Wappinger understood the deal the same way. For the indigenous peoples, land was like air and water and not a commodity to be sold. They saw hunting, farming, and living on the land as being shared in the agreement, rather than being excluded.

Verplanck, Rombout and Van Cortlandt all died before the property was developed by colonists. In 1708, the land was divided into three. The southern portion (Beacon) went to Rombout's heirs; the northern portion (Wappingers Falls) to Van Cortlandt's heirs; and the middle, including the future site of Stony Kill Farm, went to Verplanck's heirs. The Verplancks soon realized that their portion was largest but not the most valuable. William E. Verplanck later wrote: "With all due respect...I must say that I think the division was not an equitable one. While the Verplanck grandchildren may have gotten a slightly larger portion of land, it was greatly overbalanced by the enhanced value of the lands on the creeks and the waterpower(s) obtained thereby." Waterpower meant industry; land meant farming.



1689 Map of the Rombout Patent. The original Rombout Patent document can be seen on display in the Madam Brett House in Beacon.

Rombout and Van Cortlandt's descendants sold portions of their properties to gain profits, and the Verplancks leased their property to tenant farmers, although they would sell portions later. This is a big reason Stony Kill Farm still exists today, and we will explore it in a future column.

Community Art Corner

To submit artwork, poetry, or writing for the Stony Kill Almanac, email Almanac@stonykill.org



By Julian P.



By Kyle F.

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Stony Kill Farm is

a place to slow down, explore, and connect with hands-on experiences in nature and sustainable agriculture. Come enjoy the farm this season!

Youth Programs - Sign your child up for our Junior Farmer, Homeschool, After School, Scout, or Camp Programs, or join us for a Field Trip or Birthday Party.

Outings & Workshops - Come for a guided hike or participate in a workshop about topics like beekeeping, mushroom identification, gardening, and more.

Open Barn - Come inside the barn to meet the animals every Saturday and Sunday from February - November.

Take a Hike - Explore forests, wetlands, and farmland on Stony Kill's five hiking trails, totalling 8.5 miles.

Relax - Find a quiet place to sit or picnic, join our Yoga on the Farm series, or attend another of our outdoor wellness classes held throughout the summer.

For info on events and programs, visit Stonykill.org

Help support the farm you love!

Visit: Stonykill.org/donate or mail a donation to:

Stony Kill Foundation, 79 Farmstead Lane,

Wappingers Falls, NY 12590

**Your support helps us preserve and improve
Stony Kill Farm for everyone to enjoy.**



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