

STONY KILL ALMANAC

SUMMER 2020





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STONY KILL FOUNDATION

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THE MISSION OF THE 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."

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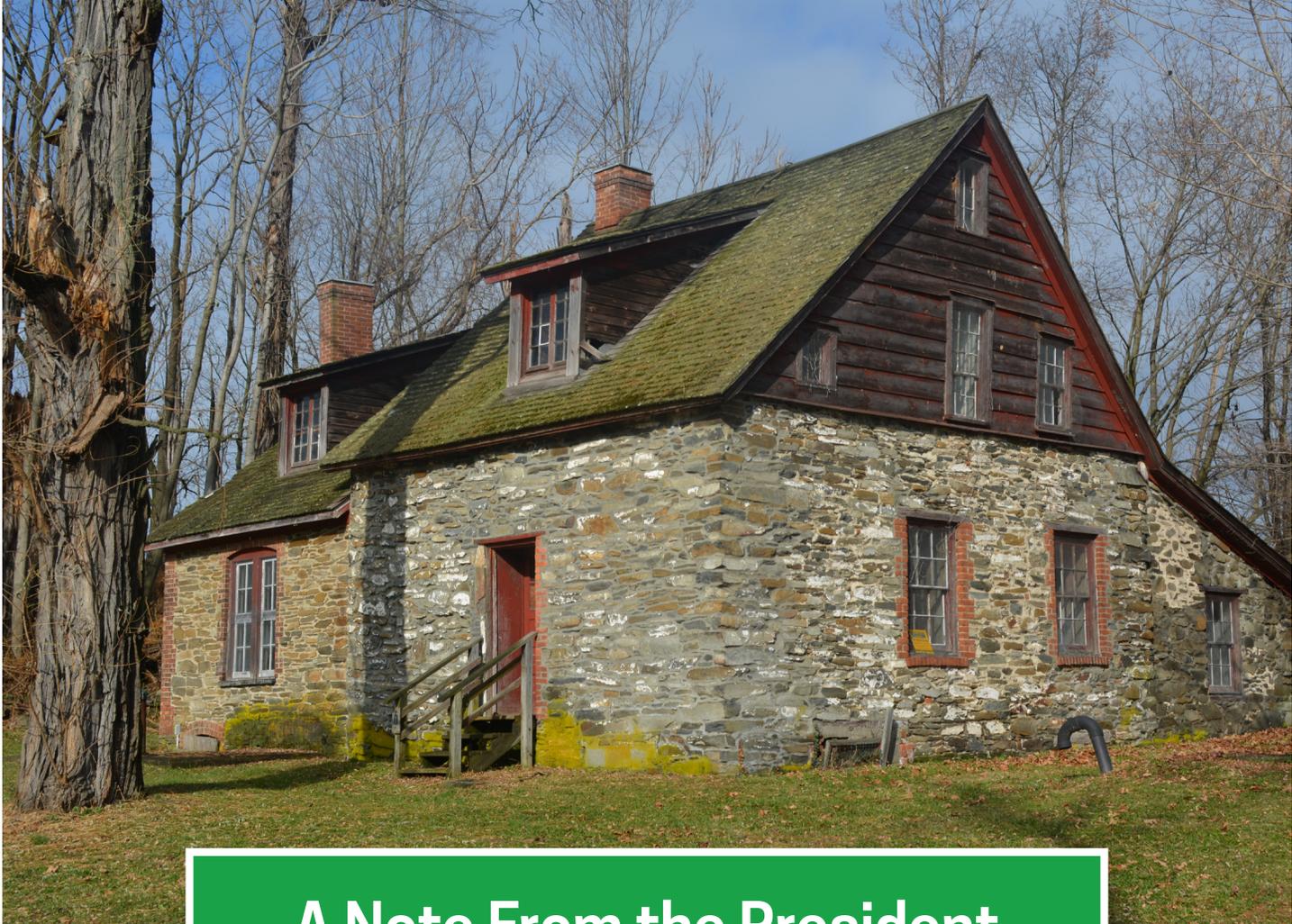
Dear Stony Kill Foundation Members,

We hope that you found this revival issue of the Stony Kill Almanac interesting and informative. The next issue is planned for Spring 2021. We would like to ask you, our members, to submit articles for that or future issues. If you would like to write an article or poem about the farm or it's mission, we would love to hear from you. Drawings and photos would also be welcome.

Please submit your items to
yValdés@stonykill.org

Thank you for your continuing support,

Yvette Valdés Smith
Stony Kill Foundation



A Note From the President

The Stony Kill Foundation is proud to rekindle the “Stony Kill Almanac,” a periodic publication that once highlighted the happenings on the Farm. This vibrant and fresh revival issue has been brought back as a member benefit. The publication features the three prongs of the Foundation’s educational mission: History, Environment and Agriculture.

The Verplanck Tenant Farmhouse, the “you and me” house of the 1700s and 1800s, was the home of many farm families over the generations. It stands as the oldest structure on the farm and at the writing of this piece is undergoing exterior renovations that are hoped to preserve the structure for another generation. A short walk from the house to the barn reveals heritage breed livestock that represent the livestock portfolio of the region, including an American Milking Devon cow named Juniper. Stony Kill has a vision to raise these rare breeds of livestock and to promote them as viable livestock that can fill a niche role in backyard farms and specialty markets.

The Foundation is excited to announce we are the recipient of a Parks & Trails Partnership grant that will partially fund an Executive Director to continue to lead the organization towards a sustainable future. This will be the Foundation’s first full time position. The financial support of our members and time commitment of our volunteers is even more important as the organization transitions and deepens its mission. You, the reader, are part of Stony Kill’s story and in this issue we highlight Adrienne Papazian, a volunteer who works tirelessly in the Verplanck Memorial Garden. With her personal story we hope to capture and record the moments of our history as it unfolds daily from sunrise to sunset.

Covid-19 has impacted our traditional programming and events but the grounds have remained open for visitors to come and have personal interactions on the farm. The trails are a wonderful way to explore and engage with nature. During your explorations you may notice pollinators are busy at work among the hayfields, hedgerows and gardens

of Stony Kill, collecting pollen and nectar to ensure the circle of life remains unbroken and provide a valuable service of securing our food supply.

This publication hopes to capture the spirit of the farm and all it has to offer. Enjoy!

Timothy J. Stanley
President, Stony Kill Foundation



Stony Kill: Then to Now

Written by Ed Cigna

This column will be dedicated to the history of Stony Kill Farm, highlighting its development in a chronological order

BEFORE EUROPEANS

Beginning 1.5 billion years ago, it would have been a land of major mountain emersion, glaciers, and ocean shifts. Perhaps around 10,000 years ago (and nobody knows exactly when), people came to this valley and found a river they called Mahicantuck, the “river that flows two ways.” These were the Lenape, native Americans who occupied lands all the way from the Delaware Valley in Pennsylvania and New Jersey to Connecticut.

The Wappinger (whose name might be translated as “the people of the east lands”) were a group of the Lenape. They were an Algonquian speaking tribe, living on a strip about 100 miles long between the Hudson and the Connecticut rivers. Originally being hunter-gatherers, they foraged for their needs including fish, shellfish, animals, fruits, seeds, roots, nuts, tobacco, hemp, and honey. Later, farming became an important source of food. Very important to their diet, they cultivated the “Three Sisters,” a trio of corn, beans, and

squash. The crops needed careful attention to water, soil, and weather conditions for success, so the Wappingers of this time became the first farmers in the area. There is no evidence they had any agricultural tools, everything had to be hand-managed.

Signs of the people are dispersed throughout our region, found in artifacts of their hunting camps, fishing camps, and burial sites, However, their largest villages were usually found at the mouths of the rivers, probably making areas known today as Beacon and Wappingers Falls significant parts of their territory. The Wappingers were described as strong people, often dressed in beaver pelts that they could reverse: fur side in for winter, fur side out for summer. They also used wild cat skins, racoon pelts and turkey feathers in their clothing. The Wappinger would sometimes paint their faces red and black, making them fierce looking. Unfortunately, there is no written or pictorial history, so we have no account of conflicts or treaties

among the Wappinger and other neighboring tribes. We do think they prospered, based on the reports made by Robert Juet, an officer on the Half Moon, who in 1609 described their greeting the ship as it sailed up the Hudson. Meeting Europeans for the first time, the natives were described by Juet as well-dressed (in deer skins), and willing to offer their food stores and furs in exchange for the Europeans’ beads and metal items like knives. The meeting may sound friendly to us now, but Juet indicated that the explorers did not trust the indigenous people, so the ship went upriver very quietly.

As for the land that would become Stony Kill, we can expect it would have been forested, populated by trees such as “great and tall oakes,” as Juet reported.

(Next installment: From Hudson to Rombout – What happened to the relationship between the settlers and the native Americans that led to the ‘purchase’ of the land in the Rombout Patent?)



Restoration at the Farm!

Written by Ed Cigna

Have you noticed the work being done at the houses near the barn? The DEC through state funding has initiated restoration of the outsides of the Verplanck Tenant House and the Stony Kill Farmhouse. Both buildings are critical to the history of the farm and agriculture in the Hudson Valley, as you will see in a later installment of Stony Kill – From Then to Now. Just know that the Tenant House was built in the 18th century, the farmhouse in the 19th. The Stony Kill Foundation has advocated for the restoration and repair of both buildings for decades so they can become part of historical presentations in our education programs. But restoration is not an easy process.

The original tenant house was a one room, one and a half story, gable structure built of rubblestone and masonry. It had a basement, but residents could not get to the basement from inside, so there was an outside entrance. To allow for this, the land in front of the east side of the house facing the road was much lower than it is now. The basement had a dirt floor. The main room was about 19' by 24',

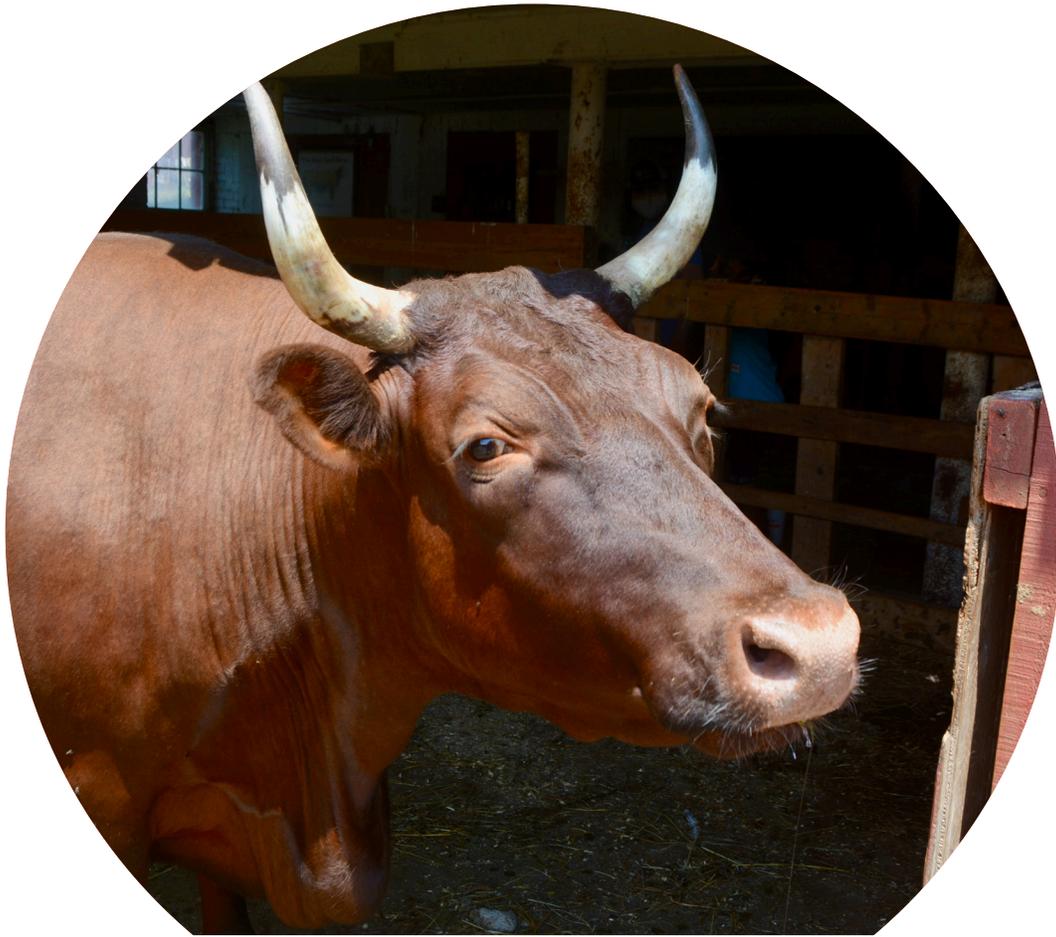
dominated by a large fireplace needed for cooking and heating. There was a staircase that led up to a “garret,” a small, dismal, and cramped living space at the top of the house. Over the course of centuries, rooms have been added, modified, and adapted to meet whatever needs the various residents would have. For example, a west room was added to the original building with its own separate door and fireplace, showing that more than one family could live in it at any time. The ladder was replaced by a staircase. Storage sheds were also added to the north side of the building. Windows were installed or removed or changed, as well as doors. There is even evidence that parts of the building were torn down and replaced. All these changes make it a challenge for the restoration contractors to return the building to its original form, but they are doing their best. They have carefully studied the structure to make it as close to the original as possible, even though there is only one photograph from the 19th century of the building that anyone has found. They are using information from The Verplanck Tenant Farmhouse at Stony Kill: Historic Structure

report prepared for the Stony Kill Foundation in 2002.

To top it all, the latest residents were a gaze (group) of racoons that had completely taken over the building and had to be removed before the house could be buttoned up securely.

We do not have a history of the Farmhouse to the same extent we have studied the Tenant House. The contractors will repair the outside and add some elements to make entrance easier and more attractive. The farmhouse was essential to the dairy farming that happened on the farm in later times. There is a big cooling basin shaped like bathtub in the basement used to store milk...no refrigerators! In the past, the inside of the rest of the building has been modified to meet the administrative needs of the Foundation so that it more closely resembles a 20th century structure.

The contractor has targeted the fall for completion. Once the exteriors are done, the interiors restoration will be next on the list. Those funds are not included in the scope of the current work.



American Milking Devon at Stony Kill Farm

Written by Tim Stanley

Perhaps you have met Juniper, our newest cow at Stony Kill Farm. You may have wondered why she looks so different from the other cows. She is currently the only cow on the farm that has horns and is often misidentified as a bull. Juniper is an American Milking Devon and her arrival at Stony Kill in February of 2020 is a homecoming for this breed of cattle in Dutchess County. In early America this very old breed was commonplace on farms throughout the Northeastern States and played a big role

in the history of the region. Listed as critically rare by the Livestock Conservancy, American Milking Devons are a heritage breed of cattle that nearly vanished forever when they fell out of favor for modern breeds of cattle that either produce more milk or more meat.

In line with the Foundation's strategic plan, the Farm and Livestock Committee determined this breed of cattle deepens the organization's mission by focusing on the education and preservation of historic livestock that tell the agricultural

story of our region. As a historic farm, Juniper is a living piece of our history. She is the first of many Devons that will come to know the farm as home. In this debut issue of the Stony Kill Almanac we thought our readers might like to learn more of their rich and ancient history. With vision, the Foundation is proud to bring history full circle in promoting this unique and rare breed of cattle. Keep a watchful eye as our Devon herd continues to grow!



History of American Milking Devon Cattle

The Milking Devon - Past and Present

Written by Drew and Janet Conroy

The Milking Devon is one of few triple purpose breeds of cattle left in the United States. This breed has always met the needs of the small farm, providing its owners with beef, milk, and draft power. While more common breeds of cattle have endured many changes and fads, the Milking Devon has retained most of its original qualities throughout history. Its value lies not only in its history, but in the qualities retained that other breeds have long since lost. The American Minor Breeds Conservancy (Now known as the Livestock Conservancy) has done a great deal to help

the Milking Devon in recent times, but the breed's importance was identified long ago. (The term "Devon" is often used synonymously with Milking Devon in New England, and with the North Devon in England).

In 1858, William Youatt stated, "The Devon as an aboriginal breed is a very valuable one, that has seemed to have arrived at the highest point of perfection." He went on to point out, "From the earliest records the breed has remained the same, and had been altered in no essential point in the last 30 years."

Contemporary Milking Devon breeders are still not anxious to cross this animal to improve specific characteristics or make it more competitive with modern breeds. The breeders of the Beef Devon did follow this trend, and according to New England ox teamsters, "bred the brains and brawn out of the animals in the process." Even in its native North Devon, England, the original triple purpose Milking Devon can no longer be found.

In comparing many of the early descriptions of the Devon, it is obvious that the same beast



Juniper was born April 10th, 2016

exists today in color, form, size, productivity, and character in the Milking Devon. While total number may be critically low, the breed nonetheless continues to survive in its original form.

THE DAIRY TRAITS

The Milking Devon is not a dairy breed in the true sense of the word. It is not accepted as part of the American Purebred Dairy Cattle Association, yet Devons continue to be milked and also used as nurse cows today. The cows are small to medium in size, with great longevity and freedom from many diseases that frequent more productive breeds.

As early as 1788, a Mr. Conyers of Epping, England commented on the dairy traits of the Devon. According to William Youatt: "He (Conyers) preferred the Devons on account that they were liable to fewer disorders in their udder, and being small in size they did not eat more

than half of what other cows consumed." In addition he stated, "A good North Devon cow can fat two calves a year."

Lewis F. Allen, in 1868, wrote of Devon cows being milked in the United States. "Our Devons yielded as much as any common cows we ever kept, with much less consumption of forage. We once had two three-year-old heifers, with their first calves, give an average of 18 quarts per day on pasture only."

John Wheelock of Colchester, Vermont, is one of the few breeders who has recently had the Milking Devon on DHIA testing. He agrees with past breeders. "The Devon are as they have always been; some are good milkers, others are poor. If you want a cow for maximum milk or beef production there are plenty of others to choose from. Devon don't fit neatly in any one category."



THE BEEF TRAITS

Many modern breeders of Milking Devons manage their cattle as beef animals, in that the cows nurse and raise their own calves. Historically, Devon breeders didn't "raise" beef as we know it. Beef was most often the fattened ox after it was considered unfit to work, or the cow after its productive life was considered over.

Most present day breeders agree that the Devons have very few problems calving, as the calves are usually quite small at birth. The cows are quite active on pasture and can adapt to a variety of climates or situations. In addition they provide plenty of milk to raise a healthy, robust calf. The breed tends to be slow to mature, but is fine boned and muscular, often fooling their owners in weight.

William Youatt wrote of their beef character, "They do not attain the great weight of some breeds, but in a given time they acquire more flesh with less consumption of feed, and their flesh is beautiful in its kind, being well marbled, pleasing to the eye and to the taste."

J. Russell Manning, in the 1880 Stock Doctor, wrote of the Devon, "As workers, milkers and beef makers combined, for the amount of food taken they have no superior. As beef makers alone, in the West only the Shorthorn and Hereford are superior."

In 1905, Thomas Shaw, Professor of Animal Husbandry at the University of Minnesota, gave a wonderful summary of the Devon as a beef animal. "The grazing qualities of the Devon are of the first order, owing to their muscularity, their activity and their grazing habit. They readily obtain good livelihood on lands where heavy bodied breeds would probably fail. Many of the females breed to an advanced age, and the breed is noted for its longevity."

THE DRAFT TRAITS

Historically the Devon has always been held in the highest regard as a draft animal. There are ox teamsters in present day New England who will yoke nothing but a Devon, because of the breed's snappy pace and ease in training. On the other hand, novice teamsters are often advised to choose more common breeds of cattle until they have learned to work with oxen. Devons will not tolerate abuse or poor training. In fact, many young teamsters have found that the Devons will often use intelligence to get their own way, rather than follow an inconsistent handler.

There has been more written about the attributes of the Devon as a working animal than could possibly be given here, but Lewis F. Allen

accurately described and summarized the value of the Devon ox when he wrote, "For active handy labor on the farm or highway, under the careful hand of one who likes and properly tends him, the Devon is everything that is required in an ox, in docility, intelligence, and readiness for any task demanded of him. Their activity in movement, particularly on rough hilly grounds, give them for farm labor almost equal value to the horse, with easier keep, cheaper food, and less care. For his lack of size the Devon is not so strong as other breeds, but 'for his inches,' no horned beast can outwork him."

Given the light soils, hilly lands and rough pasture of New England, it is obvious why the last survivors of this breed were found here. The Milking Devon cannot compete with the Holstein for milk production, and it cannot compare with the Hereford in average daily gain, especially on full feed. But this breed of cattle was bred to survive. Even in 1993, there are small farms where the Devon still lives up to its ancient character and maintains its most esteemed stature.

Drew and Janet Conroy. Published AMBC Newsletter; March-April, 1993; Vol. 10, Issue 2.

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Drew and Janet Conroy live in Berwick, Maine, on Oxwood Farm where they raise Milking Devons and other livestock. They use Devon oxen on the farm and refuse to employ a tractor.





Volunteer Spotlight: Adrienne Papazian

Written by Christopher Mendez

It's another warm summer day at Stony Kill Farm—blue sky, branches, and flowers sway in a gentle breeze, while swallows circle in the air before tucking away into nearby birdhouses. Adrienne Papazian meets me outside the little white picket fence to show me around. As head of the Verplanck Memorial Garden, Adrienne is the driving force for all its wonder and maintenance. She takes on this role with grace and tenacity, something I witnessed firsthand as she'd stop and remove weeds and sprouts sprung up around the various beds of the garden during our conversation. Her beginnings at Stony Kill Farm and the garden are humble. She started visiting during her lunch breaks (she works 2 miles away) about six years ago. "Where else was I gonna go?" she joked. Her reason for visiting came from a simple inquiry: what are all these flowers and trees around me? Adrienne's curiosity about the local plants growing along the sides of roads and in her backyard led her to take up

identification. With a few ID books, and those lunch breaks, she quickly picked up the subtle art of telling apart milkweeds from mugworts.

There was one book in particular Adrienne read which provided an important revelation for her. *Bringing Nature Home: How You Can Sustain Wildlife with Native Plants*, Updated and Expanded by Douglas W. Tallamy, a resource rich in the dynamic relationships between native plant species and their cohabitants, helped Adrienne come to a deceptively simple understanding that few consider: butterflies eat different foods than caterpillars. This difference is crucial to understanding the importance of specialized relationships between animals and specific species of plants. Butterflies have developed relationships with special "host" plants where they exclusively lay eggs. These eggs then hatch into caterpillars who can only feed exclusively from their "host" plants. Caterpillars then turn into butterflies that feed on flowers. These host plants

(and their green leaves) are an important food source that can't be replaced in the early development of butterflies. The most commonly known of these host-plant relationships is between Monarch butterflies and Milkweed—oft admired by locals and familiar to most of us from days in elementary school classrooms. But there are other important and less explored host-plant relationships that are just as vital to local ecology that Adrienne was curious about. Her journey to learn more about them led her back to Stony Kill.

With these insights Adrienne started exploring the grounds of Stony Kill. In particular, she cited the farm's Sierra Trail as a place she frequented to see "what eats what," identifying native plants and peeking under their leaves looking for butterfly eggs or caterpillars. She even began to secretly prune away invasive species she found along the trails. Eventually, her explorations lead her to the Garden. Her frequent presence there



led to someone suggesting she volunteer. There wasn't much being done at the time in the garden; tree limbs were untrimmed and beds had become unkempt and full of weeds. The space, however, was rich in possibility, which gave Adrienne a great opportunity to spearhead the project. She began to implement ideas she'd learned about from Bringing Nature Home and the garden quickly became her passion project.

Adrienne inherited a garden with a variety of plant life both native and non, including poppies, irises, bee balm, native foxglove, and butterfly weed (which is also Adrienne's favorite plant in the garden). Now no longer just a volunteer but officially in charge as of last year, Adrienne's ultimate plan for the memorial Garden is to exclusively feature a variety of Native plant species that are also important host plants. This plan will benefit Stony Kill's native life as well as further align the garden with the Foundation's work as an environmental education center.

There are some native species currently in the garden. Adrienne was excited to discover a Spicebush plant growing near the white fence entrance. Spicebush, a shrub in the laurel family and native to New York, is known for the pleasant sweet smell its leaves and stems give off, as well as its bright yellow color in the fall. Spicebush also plays an important role as the host plant for the Spicebush Swallowtail butterfly—the caterpillar of which Adrienne is eagerly hoping to spot feeding on the underside of its leaves. "They're so cool," she tells me as we pass the Spicebush. Spicebush Swallowtail caterpillars are known for their incredible mimicry; producing two large black dots at

the top of their heads along with small white markings that create the illusion of a pair of eyes. With their bright green color and false eyes the caterpillars fool hungry birds by resembling common green snakes. Other lepidoptera (butterflies and moths) hanging at Stony Kill include hummingbird moths like the Snowberry Clearwing that Adrienne says are often the most talked about at Stony Kill's annual Butterfly Festival. As their name suggests, these moths are known for their mimicry of hummingbirds in appearance and flight, hovering and humming over flowers as they feed during the summer.

Another native species Adrienne is hoping to incorporate into the garden is Virginia Creeper. A vine-like climber known for its bright red color in Fall but oft mistaken for poison ivy, Adrienne hopes that adding it to the garden will help educate visitors on telling the difference between the two plants. She's transplanted some Creeper near the arbor entrance, hoping to encourage it to grow up and over it. Virginia Creeper is also the host plant for the Virginia Creeper Sphinx Moth, another visitor Adrienne is hoping settles into the garden.

Efforts to encourage native species' reclamation of land is vital today as increasing infiltration of invasive species (mugworts, garlic mustard, tree of heavens and a host of others) threatens these important and sensitive host-plant relationships. Adrienne, however, is confident in the prospect of their return. She's witnessed butterflies hopping from plant to plant in the garden already, searching for their host plants. "They're here—give them what they want to produce more and they will," she says.

Adrienne's knowledge of native and invasive species is integral to Stony Kill and the work being done at the memorial garden. Her ability to quickly identify and remove them from the garden before they have a chance to settle in has kept it mostly safe from pesky Kentucky Coffeetree and Mugwort sproutings. However, the garden's size has made some of the other maintenance projects like mulching, cleaning out beds, and a larger weeding effort difficult. Adrienne emphasized that weeding in the memorial garden is important but requires good identification skills and knowledge of the garden's master plan to be successful.

Adrienne's efforts have significantly improved the memorial garden and her work at Stony Kill is invaluable to the foundation's efforts in fostering an education center connecting people to environmental stewardship. Her dedication and passion for Stony Kill and the Memorial Garden are widely celebrated and revered amongst staff and volunteers. Thanks to her passion and hardwork in the garden, and for the Farm, she's helped further enrich our community's appreciation for the local environment and the rich and dynamic species relationships around us.





In the Shadow of the Honey Bee

Long horn bees (*Melissodes* spp.) on sunflower

Written by Tim Stanley

As a beekeeper my greatest satisfaction is when my hives survive the winter. My favorite winter sound is hearing the steady hum of the honeybee cluster inside the hive on cold winter days; and I breathe a big sigh of relief when I see the bees bring in their first heavy loads of pollen on an early spring day. John Burroughs likened this moment to the dove bringing the olive branch back to Noah's ark. I keep my honeybees near the garden not far from the grazing cows and sheep. I manage the bees much like I manage the other livestock and I keep them for what they produce, most notably honey and beeswax. Yes, honeybees are livestock. In the Merriam Webster dictionary "livestock" is defined as "animals kept or raised for use or pleasure. Especially: farm animals kept for use and profit." The American Veterinarian Medical Association clarifies the definition: "Honey-

bees are classified as livestock/food-producing animals by the federal government because products from apiculture enter the human food chain, including honey, propolis, pollen, and royal jelly." Like most other livestock in North America, they have been imported and are not a native species.

The decline of honeybees has been in the national spotlight and often viewed as an environmental issue, but in reality it is an agricultural issue because our modern system of crop monoculture depends on them. The system of transporting honeybee hives from California for almonds, to Georgia for peaches, to Maine for blueberries and New York for apples is riddled with challenges that leave the bees stressed and vulnerable to numerous problems from pests to chemicals. This current agricultural practice is not a sustainable model.

Though honeybees are touted as essential to agricultural pollination, the North American ecosystem evolved without the honeybee. In the honeybee's shadow, just out of focus, is a force of native bees that are faster, more skilled and more efficient at pollinating flowers. Native bees evolved with the plants and flowers of North America, making them pollination experts. They are everywhere, but we haven't seen them because we haven't seen past the honeybee. We have focused an entire narrative on the wrong bee for the wrong reasons. In this shadowy unknown, there are nearly 450 native bee species just in the Northeastern states and nearly 4,000 native bee species in North America. Honeybees provide little benefit to our native ecosystems. In fact, they may cause a competitive disadvantage to our native bees by competing for resources and spreading disease . Only



recently has research been focused on our native bees and their value to our ecosystem and as pollinators for our agricultural systems.

Encouraging the biodiversity and numbers of these pollination experts not only benefits the ecosystem at large but also provides benefits to agricultural crops. The Xerces Society outlines guidelines for providing native bee habitat on farms in their publication “Farming for Bees”. If given the proper habitat, native bees could save farmers the unneeded expense of renting honeybee hives for pollination. Agriculture has yet to harness the full power of our native bees and to do so will demand creating habitats on farms so they have forage when agricultural plants are not in bloom.

As a prime example of their value, consider a few food crops. New York is the second largest producer of apples in the United States, 25 million bushels, worth \$261 million. Recent research from the labs at Cornell University has found 120 species of native bees in over 24 orchards in central New York and has found that bee diversity increases if there are natural areas surrounding an orchard. Mining bees (*Andrena* spp.), mason bees (*Osmia* spp.), and bumblebees (*Bombus* spp.) are the most common genera in apple orchards and it was discovered native bees outnumber honeybees on a per bee basis. Early research is showing seed set increases with native bee diversity and abundance, but not with honeybee

abundance. As research continues, the value of native bees to the apple industry continues to grow. A full 85% of surveyed growers viewed native bees as valuable pollinators.

Squash has its very own native specialist bee that emerges just as the plants begin to flower. The squash bee is a pollinator powerhouse that can be found wherever squash-like plants grow. This native is a solitary ground-nesting bee and lives in aggregations with other bees laying the eggs of their young in the soil beneath the squash plant. Soil tillage can be problematic for squash bees,

though plows and rototillers typically do not penetrate to a depth that is detrimental to all developing larvae. Other native bees such as bumblebees (*Bombus* spp.), sweat bees (*Halictus*, *Lasioglossum* spp., *Agapostemon* spp., *Augochlora* spp.) and small carpenter bees (*Ceratina* spp.) all visit these flowers, too. Squash and pumpkin production in New York State is valued at \$74 million dollars per year. Recent studies have found that there is no difference in fruit set with or without honeybees present. However, the presence of bumblebees working alongside squash bees does increase yield. Squash bees and bumblebees are champion pollinators of this native North American plant.

Bumblebees (*Bombus* spp.) are the preferred pollinators of tomatoes and like other native bees have developed a special pollination technique called “buzz pollination”. This is a skill honeybees lack but a skill bumblebees have perfected. The bees grasp the anther of the flower and vibrate their wing muscles to literally shake the pollen from the flower. Tomato production in New York accounts for \$47 million dollars annually. Studies have found that this bee pollination increases fruit size and yield. Tomatoes, like peppers and potatoes, belong to the nightshade family; all are native to the Americas and all have a long history of co-evolving with native pollinators that dates back before farming.

Sunflowers, another American native, also have specialists known as long horned bees (*Melissodes* spp.) that can be found spending



Bumble bee (*Bombus impatiens*) pollinating a tomato



Spring mining bee (*Andrena* spp.)
pollinating a fruit tree

their days on these flowers. Numerous other native bee species -- including leaf cutter bees (*Megachile* spp.), bumblebees (*Bombus* spp.), small carpenter bees (*Ceratina* spp.), sweat bees (*Halictus* spp., *Lasioglossum* spp., *Agapostemon* spp. and *Augochlora* spp.) and others -- visit sunflowers and contribute to the diversity and abundance of sunflower species. A sunflower is not just one flower but a composite of thousands of tiny flowers. The branching variety, especially, produces multiple flowers containing both male and female parts and therefore pollination happens more readily than with hybrid sunflowers. Hybrid sunflowers, grown in commercial agriculture, are either pollen-producing males or nectar-producing females. Foraging honeybees either collect pollen or gather nectar to bring back to the hive. While for most natural sunflower varieties, this does not pose a pollination issue, in hybrids this selective foraging reduces the chances of cross pollination. A recent study found the behavioral interaction between honeybees and native bees on hybrid sunflowers increases pollination efficiency 5-fold or doubles the honeybee pollination services. The study points out that honeybees are ineffective pollinators on a per-visit basis and to get quality fertilization, a large number of honeybees need to be provided, but the interaction between native bees and honeybees

changes bee behavior to increase effectiveness of pollination. Other studies have found the greater the diversity and abundance of native bees, the greater the yield, suggesting that wild bee diversity can boost crop yields.

In looking at these examples, it is clear to see that native bees not only play an essential role in natural ecosystems but a lead and critical role in agricultural production. The honeybee is not the bellwether of environmental problems as has been claimed. Why then the fuss over one non-native bee, why all the press about honeybees? The answer lies within their name: we don't want to lose the valuable products they provide, an industry worth \$340 million. They play a partner role in agricultural production. Yet the honeybee furor may be what will end up helping our native bees. Mitigating the threats that face honeybees -- such as wise use or non-use of insecticides, increase of pollinator plantings, reduction of invasive plants and social change to reduce our carbon footprint -- will benefit the biodiversity of our native wild bees. So perhaps the honeybee is the mascot, the champion that will save us all.

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Leap Frog & Applejacks

your laughter leaps over rivers and streams
it tingles down tree trunks
shimmers over moss
plays leapfrog on dandelions
your laughter settles on tall summer grass
amongst ladybugs and daffodils
it nestles into buttercups
plays hopscotch on budding branches
like spring it blooms and bursts amid the singing of robins

i bathe in your magic rainstorm
feel it echo on my eyelids
cup it in my hand
i softly kiss your laughter
and tuck it gently to sleep

i see myself in your every gesture and touch
i love you and fear you
you are my dreams and my realities
your cartwheels and pigeon toes
your tears and bruised knees
your soft brown hair that flies wild when you run
your thirsts
your hungers
your no ways and yes mummys
your hurt and your joys

i want to be your sun-filled room with cushions and
applejacks
i want to be your pancakes with syrup
your chocolate ribbon
your ponytails and dress up

i want to be your jolly postman
your bike and roller skates
i want to be your pillow and your teddy

but somewhere
i got the idea that it's not right for me to be these things
i'm the one who needs to say
enough candy, brush your teeth, did you wash behind the
ears, bedtime, clean up time, no tv, clean your room, brush
your hair, say you're sorry, you're excused, do your
homework, go to bed, did you pick up all your things...

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Huellas/Traces (EDITORIAL DUNKEN, Buenos Aires, 2020)



Squash bee (*Peponapis pruinosa*)
showing its long tongue

Where to Find Pollinators

Stony Kill is an oasis for pollinators and the farm provides nourishment for hundreds of native species of pollinators from early spring ephemerals to late blooming autumn flowers. Here are some locations for you to look for bees, butterflies and other pollinators.

Verplanck Memorial Garden - This trail is located on the front lawn of the Manor house, this English style garden is filled with native pollinator species. Highlights of this garden include spicebush, milkweed and other host plants needed by butterfly caterpillars to complete their lifecycle.

Woodland Trail - The woodland trail is a very easy walk in the woods and is accessed from the Manor House Parking Lot. This trail is filled with native woodland ephemerals that bloom in early spring. In early to mid-May you will find bloodroot, trout lily, celandine celendine poppy, bleeding heart, twin flower, wild geranium, jack in the pulpit and more!

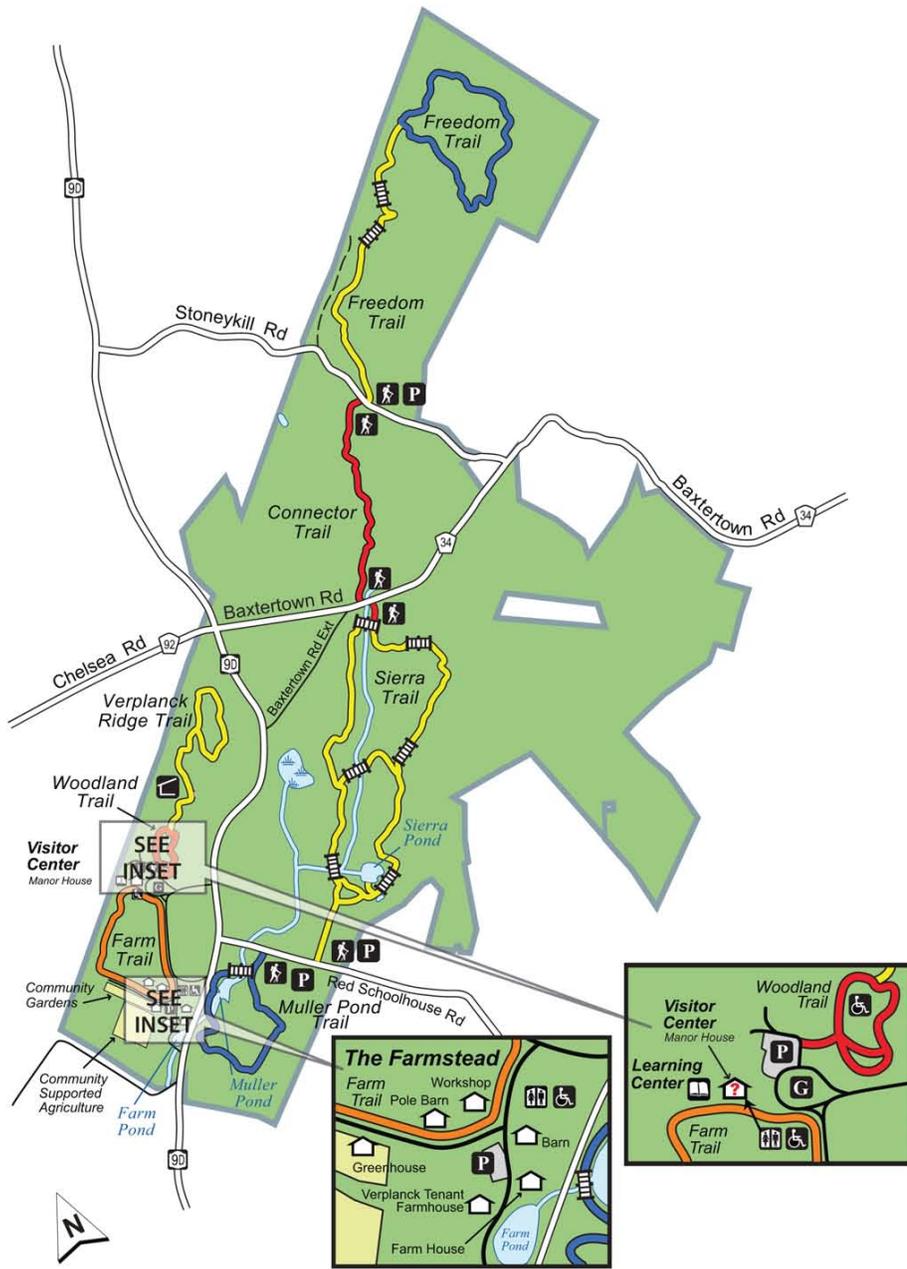
Pollinator Garden - This garden near the greenhouse started two years ago now includes mints, milkweed and other flowering plants that are attractive to a variety of pollinating insects.

Farm Trail - This is a trail that traverses the hayfields, and passes the garden plots and loops around to the manor house. This trail highlights wildflowers that can be found growing along the hayfields including goldenrod and milkweed.

Community Garden Plots - Garden plots are very attractive to pollinators and essential for a bountiful harvest. Tomatoes are visited by bumble bees that buzz pollinate the flowers or specialist squash bees that only visit members of the squash family.

Stony Kill Farm

Environmental Education Center



0 0.1 0.2 Miles

Map produced by NYSDEC Habitat Inventory Unit
December 2008

LEGEND

- | | | | |
|--|-----------------------|--|---------------------------|
| | Bridge | | State Route |
| | Garden | | County Route |
| | Learning Center | | Local Road |
| | Other Building | | Area of Special Interest |
| | Parking Area | | Education Center Property |
| | Pavilion | | Private Property |
| | Restroom | | Waterbody |
| | Trailhead | | Wetland |
| | Visitor Center | | |
| | Wheelchair Accessible | | |

Woodland Trail (0.5 miles)

This wheelchair accessible trail near the Visitors Center is fairly level and circles through a wooded area that was once a farm field. Now forested by hardwoods, it has an abundance of woodpeckers, squirrels, chipmunks and other small wildlife.

Verplanck Ridge (1.5 miles)

A moderate climb leads visitors through mixed hardwood forest and open meadow. Eastern bluebirds, tree swallows, red-tailed hawks and American kestrels love the open field areas. The path leads up to a wooded ridge, where the thickets and dense vines provide excellent habitat for catbirds, thrushes, rabbits and other wildlife. This trail is hard dirt and mowed grass.

Sierra Trail (1-mile inner loop, 2-mile outer loop)

This double-looped trail takes visitors through hardwood forest, evergreen forest, wetland and open meadow habitats, where they are bound to see a remarkable array of plants and animals. A variety of ducks, geese, herons, frogs, turtles, beaver and other creatures can be found at the pond. The trail surface is mostly hard dirt with stretches of mowed grass.

Muller Pond Trail (1 mile)

This trail traverses hardwood forest, wetland and open-meadow habitats as it circles the beautiful Muller Pond. Ducks, frogs and salamanders can be seen here. The trail is hard dirt and mowed grass.

Freedom Trail (2.5 miles)

This secluded trail wanders through diverse terrain. Rock walls, hills, wetland, field and forest await visitors. Wildlife abounds—great horned owls may call, and spring peepers, red-backed salamanders and wood frogs are common sightings in the spring and summer.

Farm Trail (0.75 mile)

This loop trail follows the edge between a cornfield and woodland, from the Manor House to The Farmstead, and returns along a paved drive. Wildlife species that favor edge habitats can be seen, including red-tailed hawks, kestrels and northern harriers hunting the fields. Woodchucks, coyotes and tree swallows also may be present. Bluebird boxes line the paved roadway. The trail is level, with a surface of mown grass and pavement.

Stony Kill Foundation

Receives Grant to Hire Executive Director

Wappingers Falls – The Stony Kill Foundation, a nonprofit organization supporting work of the NYS Department of Environmental Conservation (DEC), has been awarded a \$90,000 matching grant from the Environmental Protection Fund’s Park and Trail Partnership Grants program to hire an Executive Director.

As a Friends group, the Stony Kill Foundation raises private funds to provide educational programming, operate the working farm, and promote public use of the DEC’s Stony Kill Farm Environmental Education Center. The work of the Foundation includes hosting public events and stewarding the historic site with its animals, fields and gardens, iconic barn and many trails.

The Park and Trail Partnership Grants are administered by Parks & Trails New York, a statewide non-profit organization, in partnership with the NYS Office of Parks, Recreation, and Historic Preservation.

This grant is one of 29 awards totaling \$900,000 for organizations dedicated to the stewardship and promotion of New York’s State parks and historic sites, trails and public lands. The grants will be matched by over \$300,000 in private and local funding and will support projects to strengthen Friends groups and enhance public access and recreational opportunities.

“It’s inspiring to see the transformational effect of the Park and Trail Partnership Grants and how they are enhancing the ability of Friends groups to make an even greater contribution to the stewardship of New York’s great outdoor spaces,” said Parks & Trails New York Executive Director Robin Dropkin. “These grant funds will enable groups to leverage more private and federal funding, marshal more volunteer power, and augment the state’s historic investment in parks, trails and other public outdoor places.”

Since 2010 the Stony Kill Foundation has taken the lead role in operating the farm and the daily programs and events that serve the community. Over the past decade, this has been done with part-time staff and a dedicated group of volunteers. The Foundation recognized an Executive Director was needed to lead the organization forward so that the Stony Kill Foundation can continue to grow and expand to better serve the Lower Hudson Valley.

Stony Kill Foundation President Tim Stanley said, “The Stony Kill Foundation is honored to be the recipient of this grant. As the Foundation continues to expand its educational programming and farm stewardship practices, an Executive Director will further strengthen our ability to ensure this community resource and state-wide gem continues to prosper well into the future.”

The Stony Kill Foundation’s mission is to educate the public and cultivate environmental stewardship through interpretation of the rich historical, environmental and agricultural heritage of Stony Kill Farm. In line with this mission, the Foundation conducts programs for school groups, some of whom make weekly visits, manages community garden plots, and hosts public events – such as its celebrated Butterfly Festival – that reach thousands of people annually. More information can be found at stonykill.org.

More information on Park and Trail Partnership Grants can be found at www.ptny.org or by calling 518-434-1583.



Meet Our New Executive Director: **Erik Fyfe**

Erik Fyfe's enthusiasm for inspiring environmental stewardship and connecting people to hands-on experiences outside is what brought him to Stony Kill. Prior to joining the Foundation, he served as the Education Director for Hudson River Sloop Clearwater, overseeing programs that connect over 13,000 people a year to experiences on the Hudson River. Erik comes to Stony Kill with 14 years of professional experience implementing environmental protection programs, providing strategic leadership, and inspiring positive change.

Originally from Georgia, Erik earned his graduate degree from the School of Forestry and Environmental Studies at Yale. He pursues his enthusiasm for agricultural traditions on the side, and over the years he has been a mushroom farmer, cider maker, vegetable gardener, and beekeeper. Erik lives in Wappingers Falls with his family, and on weekends they enjoy visiting Stony Kill to see the animals and explore the trails.



STONY KILL FOUNDATION
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stonykill.org