

NEWSLETTER

Issue 9: June 24th, 2020

Protecting the Saw Kill watershed and its ecological, recreational, and historic resources through hands-on science, education, and advocacy.



A NOTE FROM: SKWC LEADERSHIP TEAM

We hope this newsletter inspires you to learn more about the spaces that we all inhabit, so we can better understand how to support and maintain them. In this time of social isolation, when connection is typically reliant on bandwidth, we can still connect to the natural world around us.

The health of our watershed depends on how we treat the soil beneath our feet, how we use our water, and how we interact with our natural environment. As summer kicks in, think about what you put out into the world, and how you affect the land and water in your garden and in your community. As much as we rely on our watershed, it also relies on us.

Remember to check local news outlets for closures and reopenings before going exploring this week and as always please email sawkillwatershedcommunity@gmail.com with any questions or feedback.

CONNECTED THROUGH FLORA: MONTGOMERY PLACE

Grace Carter, Saw Kill Watershed Community Intern, Bard College '21

Montgomery Place, located on the mouth of the Saw Kill, is an early 19th-century estate and National Historic Landmark. The Saw Kill runs adjacent to Montgomery Place on the north, descending steeply through a wooded area with several waterfalls into South Tivoli Bay, where it connects to the Hudson River. As a tributary, the water quality of the Saw Kill influences the water quality of the Hudson River, which provides drinking water for over 100,000 individuals. On the other side of the Saw Kill lies <u>Bard College</u>, which uses the <u>stream</u> as both its primary water source and for disposal of its treated wastewater.

The Montgomery Place estate was owned by members of the Livingston family from 1802 until the 1980s. Starting in the 1820s, pressure for industrial expansion using the water power of the Saw Kill increased. Louise Livingston saw development as a threat to the peacefulness and natural beauty of the 14.3-mile Saw Kill. In 1841, she made an agreement with Robert Donaldson, her neighbor to the north at Blithewood, to purchase the land along the Saw Kill to prevent it from being developed for industrial mills They also purchased land at the mouth of the Saw Kill and dismantled a mill on the site. The agreement is one of the earliest such conservation measures in American history.

The north and south sections of the property, known as the North and South Woods, remain heavily forested. The South Woods, approximately 70 acres in size, is the oldest oak forest in the Hudson Valley. The North Woods slopes down to the ravine where the Saw Kill flows. Today, winding paths and trails <u>open</u> to the public lead through both wooded tracts.

Montgomery Place has been home to talented people inspired by the beauty of the grounds. Violetta White Delafield (1875–1949), married to a descendant of Louise Livingston, was a botanist known for her horticultural pursuits at Montgomery Place. In the early 1900s Delafield <u>published three scientific articles</u> on fungi in the Bulletin of the Torrey Botanical Club which is the <u>oldest</u> botanical journal in the Americas. She is credited with the discovery of numerous species of fungi, including eight species of <u>Tulostoma</u>. Delafield lived at Montgomery Place from 1921 until her death in 1949, painting hundreds of annotated watercolor illustrations of mushrooms. Pictured here is *Lactarius indigo* from August 25, 1926. Her contributions of fungal specimens to the herbaria of The New York Botanical Garden and New York State Museum retain significant scientific value to this day.





Alexander Gilson is another notable occupant of the Montgomery Place property. The child of Black housekeeper Sarah (Sally) and butler John, both enslaved people on the Montgomery estate, Alexander was born in 1824, three years before enslavement was abolished in New York. Gilson labored for 50 years at Montgomery Place, became head gardener, and eventually left to focus on his own nursery. Bard had an event in his honor and memory in 2019. In the 1860s, Gilson cultivated a new plant in the amaranth family, Achyranthes verschaffeltii 'Gilsoni.' It was named in his honor and announced to the horticultural community by a notice published in the Amnual of 1869. The botanical wonders of Montgomery Place were described in an 1861 edition of The Horticulturalist. Gilson was mentioned briefly, although only by his first name, as taking (justifiable) pride in the estate. He eventually established his own nursery business in Red Hook, running it until his death in 1889. His name also pops up in 19th- and early 20th-century publications like American Gardening and American Florist in relation to the double-flowering Begonia 'Gilsoni.' The plant, shown here, was cultivated by Gilson and named in his honor in the 1870s.

Although Alexander and Violetta didn't have a lot in common, they both lived on the Montgomery Place estate. They had different experiences, social classes, and responsibilities. What united them across time was their love for the natural beauty of the world around them, a beauty that continues to inspire students and visitors to the property today. Montgomery Place is a prime example of how land conservation maintains the natural beauty of this region and brings people together to enjoy the scenery, plant life, and the Saw Kill. The estate and grounds are open to the public. If you visit, keep a lookout for the wondrous flora that still grow at Montgomery Place and along the Saw Kill.

THE SEASON FOR A SAFE YARD AND CLEAN WATER

Karen Schneller-McDonald, Chair of the Saw Kill Watershed Community

It's the season for growing gardens: vegetables, flowers, and landscaping. With that growth, we also get weeds and insect pests that can be annoying and sometimes downright destructive. Flyers arrive in the mail, advertising services that will spray my property with insecticides that will supposedly keep my yard and garden free of all insect pests so I can enjoy the outdoors more fully. These ads set off red flashing alarms for me.

What's the problem?

Collectively, homeowner use of chemicals exceeds agricultural use by up to 10 times more chemicals per acre. Most of these chemicals also harm species other than those we'd like to get rid of, disrupt food chains and ecosystems, and affect our health (many are carcinogens or hormone disruptors, for example). Many of these chemicals will end up in our water through groundwater or by being washed into streams by stormwater runoff.

Pesticides, herbicides, and fungicides can have far-reaching effects. Herbicides and fungicides don't only affect their targets, but in fact they can affect inscts, wildlife, and our own health., The widely used herbicides glyphosate (Roundup) and atrazine are only two examples of herbicides that have major impacts on a range of species. Insecticides that kill harmful insects also kill beneficial insects that are important as pollinators and as food for birds and bats. In North America, many insects and birds are currently experiencing severe population declines. The direct and indirect impacts of toxic chemicals are contributors. Some chemicals not only kill species outright, but also affect other species (including people!) by changing body chemistry and metabolism, breeding, behavior patterns, and susceptibility to disease.

Many pesticides still widely used in the US have been banned or are being phased out in other countries, including the EU and even China and Brazil. Some are restricted by individual states and cities, but are in wide use throughout other parts of the country.

Many of these chemicals have been implicated in acute pesticide poisoning events in the US. Only a fraction of the chemicals we commonly use have been adequately tested and regulated. As a result, their continued use is putting us and our environment at risk. For example:

- Neonicotinoids (over 40 different chemical formulations). These systemic chemicals (when sprayed on a plant
 they are absorbed throughout the entire organism) are particularly toxic to bees. Although the EPA has
 banned 12 products containing neonicotinoids, it left 47 other products that contain neonicotinoid chemicals
 on the market, underestimating the risks posed by these neurotoxic pesticides to birds, bees, mammals, and
 even human health.
- Glyphosate (Roundup). A growing number of countries have restricted or banned glyphosate because of its link to cancer in humans, toxicity to insects including bees, and serious effects on species diversity. While the federal government is slow to restrict glyphosate, several municipalities in the United States have restricted or banned it.
- Atrazine. Atrazine is one of the most commonly used herbicides in the United States (80 million pounds are
 used annually) and the pesticide most commonly found in groundwater, streams, and drinking water. It has
 been banned by the European Union because it's so dangerous to both people and wildlife and has such a high
 potential to contaminate water sources and harm aquatic organisms.
- Malathion. This pesticide is widely used in agriculture, residential landscaping, public recreation areas, and in
 mosquito eradication. Malathion is linked to developmental disorders in children and is a likely human
 carcinogen. It is highly toxic to bees and other beneficial insects, some fish and other aquatic life, and poses
 widespread risks to protected plants, animals, and fish.

What can you do?

You don't have to use harmful chemicals—there are safer ways to protect your tomatoes and flowers and control insects such as ants and mosquitoes. Each of us needs to make sure the products we use don't have unintended harmful effects—on us, on non-target plants and animals, and on our drinking water. Rather than assuming a product must be safe if it's available for sale, we need to assume that any chemical we use may be harmful unless proven otherwise. What other species does it affect, directly and indirectly? Where does it go after it's applied? Does it break down, and after how long? Does it produce harmful byproducts?



Integrated Pest Management (IPM) is a good approach. It begins with identifying the pest you want to control, and examines the nontoxic options that target that pest. The <u>Beyond Pesticides database</u> is a great resource where you can look up an insect pest and find options for nontoxic control. Cornell Cooperative Extension offers guidance for IPM as well as help with insect identification and diagnosis of garden maladies.

Seek to use the least toxic alternatives first, and direct your actions only at the target species. For example, most mosquito control "foggers" kill all insects; other insecticides also harm mosquito predators. Mosquito control is more effective when it's directed at aquatic larvae rather than adults. Any small water puddle full of larvae can be treated with a mosquito dunk tablet that contains Bacillus thuringiensis, an effective natural larvicide that won't harm anything else.

- · Many effective and nontoxic alternatives for insect and weed control are available, including microbial insecticides, insecticidal soaps and oils (neem, for example), diatomaceous earth, and botanical insecticides such as pyrethrin.
- If you must use a garden chemical product, select one with minimal toxic effects. Spot-treat and don't broadcast chemicals over a large area. In all cases, follow directions carefully. Store and dispose of pesticides safely.
- Keep all chemicals away from streams, ponds, and wetlands and adjacent areas, and off surfaces that convey stormwater into these waters.
- Avoid all insecticides that are toxic to bees.
- Encourage a variety of native plantings. In balanced ecosystems, trees support a variety of caterpillars that are essential food for birds; native caterpillars consume tree leaves without harming the tree. Native plants also support habitat for natural predators of insect pests, essential for keeping them in check.

We can all be part of the solution, reducing the load of toxic chemicals on land and water, one backyard at a time. The cumulative effect of our actions can make a difference.

STAYING COOL IN THE TIME OF CORONAVIRUS

Julia Gloninger, Saw Kill Watershed Community Intern, Bard College '21

As certain counties begin to open up across the state, many of us are eager to visit our favorite swimming spots to beat the summer heat. State beaches and other local swimming spots have begun to open with various precautionary measures in place to ensure public safety like capacity limits. Be sure to practice social distancing and maintain good personal hygiene when visiting these swimming spots, and plan ahead as many public facilities like restrooms or other amenities may not be available. We've made a list of our favorite local swimming spots that are open in our area.

Zabriskie's Waterfall - Bard College

Located on the Bard College Campus (and on our very own Saw Kill River!), Zabriskie's Waterfall is a popular swimming spot for the Bard community and the greater community. Although there are no official capacity limits, the swimming spot is small, so try to visit when it is likely to be less crowded.

Wilcox Memorial Park - Milan

The Wilcox Memorial Park hosts a variety of family fun activities, including swimming in one of two lakes on the property. The swimming lake has recently opened on the weekends only until June 21. Afterwards, the lake will be open for swimming 5 days a week (closed on Tuesdays and Wednesdays).

<u>Lake Taghkanic State Park - Ancram</u>

The Lake Taghkanic State Park is located in Columbia County and hosts a swimming beach in addition to other recreational activities like hiking, biking, and fishing.

Minnewaska State Park Preserve - New Paltz

A little further away, the Minnewaska State Park Preserve offers a gorgeous swimming experience with the Shawangunk Mountain ridge as a backdrop. Parking capacity in the park has been reduced and all restrooms are closed.

Taconic State Park (Rudd Pond Area) - Millerton

Also further away from the area is the Taconic State Park which is nestled alongside 16 miles of the Taconic Mountains in northeastern Dutchess County. This state park offers swimming at 64-acre Rudd Pond, where you can also rent canoes and rowboats.

Many beaches and swimming spots will limit the number of guests, so try to choose a time to visit that will likely be less crowded, such as a weekday. If the swimming spot does not have an official capacity limit, it is still important to avoid crowded areas to prevent the spread of the disease. You can check parks.ny.gov, and 511.org for park capacity closure alerts. Stay cool and stay safe!

