

# QUIET CORNER

BROUGHT TO YOU BY THE YALE SCHOOL FORESTS

## ABOUT THE QUIET CORNER INITIATIVE

The Quiet Corner Initiative (QCI) supports local livelihoods, sustainable forest management, and rural economic development by building relationships between local landowners, conservation and forestry professionals, and the students and faculty of the Yale School of Forestry & Environmental Studies. Thank you to our alumni and the rest of the Yale community for their support.

## A Note from the QCI Manager

Hi all,

We're in the midst of an uncertain and scary time. As I write this, I don't know when we'll next be able to host in-person QCI programming or return to our usual activities at Yale-Myers Forest. Yale's campus is closed, including our camp buildings, and students are learning from home. In the meantime, please enjoy this recap of some things we've been up to over the past few months. In these pages you can find an account of the wildlife tracking workshop we held in February, a look at prescribed fire in the Quiet Corner, and information about a new digital trail at our Red Front Lot.

We're also excited to share our new arts feature with you. We hope to spotlight a different person in each upcoming edition of this newsletter; anyone with photos, art or writing about the local landscape is encouraged to submit work! See page 3 for the first installment by Lynita Shimizu and instructions for submissions.

I hope you all are staying safe and well, keeping in touch with friends and family, and getting outdoors as much as you can. Hopefully it won't be too long until we can see everyone in person again!

**Rosa Goldman**

*Quiet Corner Initiative Manager  
Yale School Forests*

## NEW INTERPRETIVE TRAIL TO OPEN SOON!

**Damaris Chenoweth**, *Story Map & Visual Communication Assistant, MESC '21*  
**Rosa Goldman**, *QCI Manager, MF '19*



"Red Front" Trail sign at Yale-Myers Forest; Photo Credit: Damaris Chenoweth

Some Quiet Corner residents may already be familiar with the Red Front Trail, an interpretive walk through an area of Yale-Myers Forest between Centre Pike and Kozey Road that is managed for wildlife habitat. The trail will soon be going digital, providing a virtual rendition of educational content about forest ecosystems and management. This project uses ArcGIS StoryMaps, a platform for creating interactive digital storytelling enhanced by maps. Visitors can refer to the StoryMap as they walk the trail (much like a traditional trail brochure or interpretive signage), or use the map itself as a virtual "walk" in place of a visit. The trail was digitized with the support of the Rosenkranz Award for Pedagogical Advancement. Damaris Chenoweth (MESC '21) built the StoryMap over this past fall and winter, with support from the School Forests' postgraduate fellows Laura Green (MF '18) and Rosa Goldman (MF '19).

When you visit the trail, you'll begin at the Old Home Site, the site of the historical home with a red front that gave the lot its name. From there, you'll travel along the trail and learn about topics including forest succession in abandoned fields, the role of sunlight in vernal pool biodiversity, and prescribed burning. The focus throughout is on wildlife habitat, as we reference management techniques and research projects that have been carried out over the years in the Red Front Lot with wildlife in

mind. Text, photos, and videos where possible highlight the features of the trail and serve as virtual signage for both in-person and digital visitors.

A newly improved trail map guides users through the digital trail, highlighting each stop location within the greater Red Front Lot. Different-colored shapes on the map represent features along the trail, such as marshes, vernal pools, or areas that have been burned. The trail winds its way through several different types of wildlife habitat, from a marsh created by beavers to a red pine stand, and onwards past a shelterwood cut and an oak-savannah woodland maintained by prescribed fire (see "Prescribed Fire at Yale-Myers Forest", page 5). Visitors will learn about the habitat requirements of wildlife, ranging from frogs to mice to various bird species, and how we go about creating and maintaining those conditions on the forest landscape.

Students in Dr. Mark Ashton's spring silviculture class were the first to test out the new digital trail. With Yale's campus closed and all courses moved online, the trail offered a unique opportunity for a remote-learning field trip. The Red Front Trail StoryMap will soon be open to the public and available on the School Forests website – look out for an announcement this summer. We hope to "see" you out on the trail!

# THE WILDLIFE AMONG US: WINTER WILDLIFE TRACKING WORKSHOP

Michael Storage, QCI Assistant, MF '20

What kinds of wandering wildlife traverse the landscape and escape our eyes? We may think that creatures are out there romping the woods, but how can we know for sure? On a bright sunny winter Sunday in late February, Jacob Holzberg-Pill (MF '10) led an enthusiastic group of curious children, students, and adults through the woods of Yale-Myers Forest looking for signs of other species and their mysterious whereabouts.

So, we began our search for clues related to plants, animals, and where they live on the landscape of the Quiet Corner. Alas winter had betrayed us again, as not a glimpse of snow was to be found. A bit of snow on the ground might have helped our efforts to find tracks and evidence of those that came before us. But we would need to dig deeper into our observant abilities. Jacob helped us notice the typical patterns of where we would find clues and he encouraged us to recognize deviations from those patterns. Plants and animals don't always abide by our anthropogenic preconceptions of them!

Our first stop was a fire pit below the shaggy bark of several gray hickory trees. With their compound leaves ground beneath our feet, one of the younger wildlife watchers among us noticed something peculiar about the disheveled shells of hickory nuts scattered around us. They seemed to be broken open and clustered together around hard surfaces, such as a rock or a tree stump. It was here that Jacob helped us make our first deduction. Squirrels had utilized the tools around them, like rocks and stumps, to break through the hard exteriors and gain access to the juicy nuts.

We then proceeded to make our way down to the creek where curious humans attempted to explore the cracks and crevices of the natural world. The next thing to fall upon our inquisitive eyes was a large and furry feces laid to rest on a gray rock by the stream. After careful scrutinization (although some examined closer than others), Jacob determined that it was deposited by a carnivore due to the presence of teeth and bones.

As our group meandered our way along the creek, evidence of beaver was impossible to ignore, even for the uninitiated. We saw many gnawed stumps and branches, especially the softer hardwood species such as aspen, poplar, alder, and birch. One especially notable example was a moderately sized yellow birch tree with a significant section that had been removed by the work of beaver. Beaver are clever enough to know their favorite food

spots, and will return every year to munch on the new year's cambium growth.

We continued to follow the creek in search of more beaver clues, but came across new intriguing signs surrounding the base of a hemlock tree. Cut twigs could be found encircling the trunk, and Jacob pointed out the 45-degree angle upon which the suspect animal had clipped the branches with its rodent incisors. Even more obvious, however, was the mound of cascading poop at the base of the tree, which helped us deduce that the culprit was an adept climber. Ultimately it was the presence of quills that helped us decide it was a porcupine that had occupied this tree.

Finally, we found the fabled beaver lodge! The frozen reservoir glistened in the winter sun, and the mound of carefully arranged sticks arose from the water stoically. Jacob then pointed out the beaver dam, a separate pile of meticulously placed sticks, dirt, and rocks which protected us from inundation and had created the impounded reservoir. He also highlighted the beaver's winter food cache of sticks near their lodge, which the beaver can draw from without venturing too far from its comfortable home. In lust for a true wildlife

sighting, a member of the group threw a rock out onto the ice to tempt the beaver from its lodge. But alas, the clink of the rock on ice was not met with any beaver callers.

Our curious minds could not be curtailed, and Jacob insisted we continue to follow the impounded creek downstream. We made our careful way through damp pockets of wetland vegetation, complete with open water and the risk of wet feet. Eventually we discovered a red maple growing where an old beaver lodge used to be. Jacob pointed out that this whole wetland area, complete with the plants that today's beavers love to feast upon, exists in its current vegetative state thanks to the grandparent beavers of generations past. That old beavers were farming for future generations, and they helped form the landscape for what it is today.

We all appreciate the heightened ability to detect them and to confirm the presence of wildlife. This sunny winter jaunt through the woods helped illuminate a few of the secrets hiding in the woods. We now knew some of the patterns that could help point us in the direction. But, don't forget to ask questions, especially when exploring a new place, because we don't always know the answers.



Jacob Holzberg-Pill leading the Winter Wildlife Tracking Workshop in February  
Photo Credit: Rosa Goldman

# ARTS IN THE QUIET CORNER

Welcome to the first installment of a new feature spotlighting the work of our creative neighbors! We'll be featuring a different Quiet Corner resident in each of our spring and fall newsletters. If you have any art, photos, or writing to contribute, please email [quietcorner@yale.edu](mailto:quietcorner@yale.edu). No perceived "expertise" required, just an eye for the landscape that you love!

## Lynita Shimizu: Cartoons and Woodcuts

Cartoons featuring the Ashford beavers of Hillside Road appear on Instagram and Facebook under the title "[Beaver Ponderings](#)". Lynita Shimizu, inspired by sharing property with four beavers (this Spring's count), takes photos during her daily walks around the pond. She later adds quick caricatures and "translates" for her muses. Lynita states, "As a woodblock printmaker, I have an affinity for beavers: wood and water rock our worlds."

To see Lynita's woodcuts, please visit [www.Shimizuwoodcuts.com](http://www.Shimizuwoodcuts.com). The beavers' work can be found in the neighborhood of Yale-Myers Forest.



Shimizu Woodcuts  
The woodblock prints of Lynita Shimizu

GALLERY MOKU HANGA THE ARTIST EVENTS

Hot off the printing blocks!

"Grandma's Farm"

"Grandma's Farm" was done after finishing "Papa's Farm". I

"Papa's Farm"

"Papa's Farm" was made with happy memories of long-ago



# RESEARCH SPOTLIGHT: THE FUTURE FOREST

Laura Green, *Naturalist Program Fellow & Research Manager, MF '18*

The forests of southern New England are at a transition point. Our second-growth forests, much of which established from old fields after farm abandonment, are now mature enough to be harvested and regenerated into third-growth forests. With this change, new questions arise for land managers. Will today's forests regenerate in the same way that second-growth forests did after farm abandonment? Will the species that dominated our forests for the past 80-150 years hold onto their dominant position in the future? How will we adapt to this changing landscape?

Jess Wikle (former QCI Manager and MFS '18), spent the summer of 2017 traversing Yale-Myers Forest to study what is actually happening on the ground in these new third-growth forests. She focused on irregular shelterwoods: a treatment that aims to regenerate forest stands in a way that both favors desired tree species and creates a future forest that is diverse in age, structure, and species-composition. Traditional shelterwoods use a preliminary harvest to remove much of the canopy and free up resources for a new generation of trees to establish. In a few years, once the new seedlings have had a chance to develop their root systems, the rest of the previous generation of canopy trees is removed so that those established seedlings can take off toward the sun! Irregular shelterwoods use this same general model, but leave behind some canopy trees to provide a more diverse forest structure for the future, which has positive benefits for wildlife species, including many birds!

Jess and her field assistants measured and mapped trees across 34 irregular shelterwood harvests that spanned the last 25 years. These harvests were particularly focused on trying to regenerate northern red oak. Oak species are key trees in our region, offering

tremendous food for wildlife and high-quality timber, and are often long-lived. Oaks have dominated many second-growth forests. Yet, in our new third-growth forests, they seem to be struggling to hold onto that winning position. Walking through recent harvests, one often feels they are struggling to find a single oak through the seemingly endless black birch stems. It would appear that our oaks are now being out-competed by other species – notably black birch and red maple.

In a paper published last fall, Jess and her co-authors offer helpful insight into the patterns that are beginning to unfold in our forests. Notably, they found that the more canopy trees from the preceding second-growth forest that were maintained after the shelterwood harvest, the less successful oak was at regenerating. A shadier understory – the result of more remaining canopy trees – favored other tree species, especially red maple.

The authors were also able to see how conditions changed over time by comparing across the sequence of forest stands that were regenerated over a span of 25 years. Early on, there were many more black birch seedlings than there were red oak or red maple. However, the black birch died off in significant numbers over the first ten years. Red oak and red maple, on the other hand, stayed fairly consistent in their numbers of stems. Black birch individuals that were successful in surviving after year ten, however, were taller than the red oaks, and stayed that way through year 25. Which tree species are tallest is an important determinant for how the next forest canopy – which could last for a century or more – will look. Though some trees are able to survive and grow slowly under a closed canopy for decades, past studies have found that red oaks saplings can't hang on in



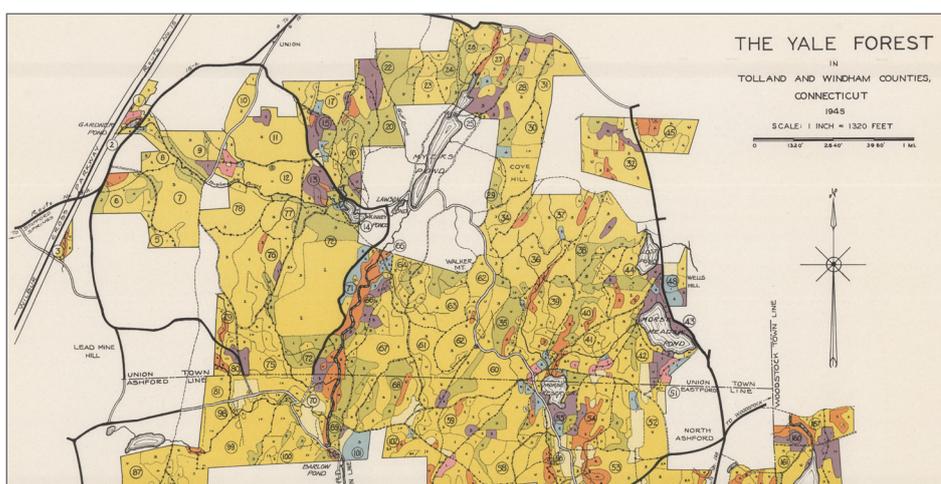
Jess Wikle, former QCI Manager, MFS '18

the sub-canopy indefinitely. However, things started to change again after year twenty, with red oak finally starting to take off in height and beginning to approach the black birch by year 25. Even after a quarter century, the young forest is still changing in significant ways.

Jess, who is now a PhD student at UVM, is still out in the woods measuring trees and trying to untangle the question of how our future forest will look: “While I have moved on to a new school, different project, and different forest type (northern hardwoods), both my master’s and PhD research have focused on the same broad issue. We know how forests developed in the past, but there are a lot of questions about what to expect in the future and how to approach management. My current project is examining outcomes of forest management approaches designed to help forests adapt to climate change and the protocols have been co-developed with local managers who contributed valuable input to understanding what approaches may work.”

For a link to read the paper in full, email Laura ([laura.green@yale.edu](mailto:laura.green@yale.edu)).

Reference: Wikle, J., Duguid, M. and Ashton, M.S., 2019. Legacy forest structures in irregular shelterwoods differentially affect regeneration in a temperate hardwood forest. *Forest Ecology and Management*, 454, p.117650. <https://doi.org/10.1016/j.foreco.2019.117650>



Yale-Myers Forest Stand Map, 1945

## PREScribed FIRE AT YALE-MYERS FOREST

Elizabeth Himschoot, MEM 21' (originally published in the [Yale School of Forestry & Environmental Studies Blog](#))

While some students might think spring break is for late mornings and relaxation, some early morning opportunities are too good to pass up when they present themselves. Prescribed burns are weather-dependent and can be difficult for students to attend during the normal academic calendar. So, after a prompt sunrise drive to the Yale-Myers Forest, our team of student volunteers strapped water tanks to our backs and completed a thorough safety briefing. Under the direction of trained professionals, we then slowly ignited a meadow, contributing to its nutrient cycling and habitat diversity while selectively managing for Oak and Hickory regeneration.

As with all prescribed fires, the morning started by gathering supplies and doing a site check to ensure the safety of burn participants and the surrounding forest systems. Under the supervision and instruction of Joe Orefice, director of forest and agricultural operations at Yale, and Stephen Prinn, the Yale-Myers Forest caretaker, we completed a test burn on an old homestead within the forest. This test burn was useful in helping all the students learn and review the steps in preparing for and managing prescribed fires. It also helped us see how the fire would behave under the weather conditions that day.

Soon we were working side by side marking a control line around the prescribed area by scraping the organic matter that could be used as fire fuel and creating a line of barren

ground. Using a back-burning fire, a fire that will burn into the prevailing wind, we expanded our control line to reduce the risk of spot fires on un-prescribed land. Once the back-burning fire was ignited, we slowly moved across the field lighting fore-fires which moved in the direction of the wind and would increase the speed of the back burn as the heat drew it in. All of which was advised and narrated by Dr. Orefice who provided us information on safety, ecology, and land history as the fire crept along until the whole meadow was covered in a thin layer of ash.

While this was not something I had planned to do during my time at F&ES, it was a truly humbling experience. I was awarded a glimpse into the living history and knowledge inherent in planning and implementing a prescribed burn. For thousands of years Native Americans used fire to help create the diverse mosaic of forest, grassland, and meadow ecosystems that we see today. Now, foresters all over the country, including in national parks, use prescribed fires to maintain high value ecosystems and habitats.

Fire can be scary, dangerous, and full of destruction. But it can also spark new life by germinating seeds and releasing key nutrients back into the soil. In a few months you won't be able to tell there was ever a fire, but the enriched habitat and species diversity will be there to tell the tale.



*Prescribed Burn at Yale-Myers, March, 2020  
Photo Credit: Dr. Joseph Orefice*

## MORE BURNING IN THE QUIET CORNER



*In late February the Wildfire Student Interest Group (SIG) at Yale joined Quiet Corner resident and forester Emery Gluck for an in-field demonstration of prescribed burning. These efforts focused on reducing the threat of invasive species and promoting native wildlife habitat.; Photo Credit: James Puerini*

FROM ALL OF US AT QCI, WE WISH YOU GOOD HEALTH DURING THIS TIME. WE LOOK FORWARD TO WALKING IN THE WOODS WITH YOU AGAIN SOON!



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The Yale School Forests  
360 Prospect Street  
New Haven, CT 06511

Website: <https://forests.yale.edu/>

Facebook: <https://www.facebook.com/YaleSchoolForests/>

Instagram: <https://www.instagram.com/yaleschoolforests/>

CONTENT BY:

**Rosa Goldman**, QCI Manager, MF '19

**Damaris Chenoweth**, Story Map & Visual Communication Assistant, MESC '21

**Michael Storace**, QCI Assistant, MF '20

**Laura Green**, Naturalist Program Fellow & Research Manager, MF '18

**Elizabeth Himschoot**, MEM '21'

LAYOUT AND EDITING BY:

**Michael Storace**, QCI Assistant, MF '20

**Eliot Nagele**, QCI Assistant, MF '21

