

# **YALE FORESTS NEWS**



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#### 2020 ANNUAL REPORT

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### The year behind

Unpredictability defined the year behind in many ways, yet the Yale Forests consistently proved to be resilient and needed in this past year of uncertainty. Pandemics, politics, and peoples' need to be connected with the outdoors defined our year. Sadly, 2020 was the first year when MODs was not held at the Yale Forests but we are looking forward to its return in 2021. Our forest ecosystems faced challenges in 2020 as well. At Yale-Myers Forest our ash trees are rapidly blonding due to emerald ash borer, and a couple (Continued on page 2)

#### Forest Crew 2020: The Corona Crew

Devon Erickson MF '20 and Brittany Weinke MF '20



The COVID pod of apprentice foresters express their enthusiam for finishing a sale in the Morse Division. Photo by J. Lloyd.

To understand the experience of Yale Myers Forest Crew 2020, aka Corona Crew, it is important to know the challenges the preceding months brought to the YSE Class of 2020. The COVID-19 pandemic struck just as we were preparing to leave for the many global trips that The Forest School spring break had to offer. Most were cancelled. Those were just the first of the countless wonderful experiences we watched evaporate that spring. In-person classes, graduation, prospects-replaced sheltering in place, isolation, and fear.

As summer progressed and the country and Yale cautiously explored the possibility of phased reopening, the idea of Forest Crew still felt like only a dream. And yet, through the advocacy and careful

planning of Dr. Ashton, Dr. Orefice, and Forest Manager Jess Lloyd, that dream became a reality. Strict quarantine and testing allowed Crew members to create a "COVID bubble" so we could experience life at the forest for five weeks in late summer.

The gratitude we felt at being able to have that experience was hard to describe, but was repeated often in our conversations. To have the chance to fill our brains with more lectures from Dr. Ashton, to paddle around the Morse pond on a lazy Sunday, to wake up to the sounds of the forest – we could not believe our luck. But on a simpler level, to have the chance just to share meals and laughs and songs around the campfire with classmates after months of

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Dr. Ashton leads the Forest Management Plans course with students in residence over the Fall. Photo by R. Goldman.

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summer thunderstorms storms have severe winds that punched holes in our forest canopy in a few places. Yet, the story of 2020 at the Yale Forests is a positive one. The holes in our forest canopy are already filling in with new growth and our diverse forests were able to weather a severe drought in August and September. We also had a bumper crop of red oak acorns and hopeful that some of these progeny will establish in the understory. Perhaps most importantly, our forests provided a welcome retreat to our community members who were engulfed in a digital, and socially distant world.

Great things have happened at the Yale Camp at Great Mountain Forest (GMF) as well. The facilities were closed in 2020 to outside groups but this gave us an opportunity to renovate the energy systems at the camp. We are proud to announce that the Yale Camp at GMF has now transitioned from a propane powered off-grid electric system to a solar powered off-grid system. This new system was made possible through the generous support of

the Joseph Stephen Taylor Fund and will serve as an educational asset for those interested in solar and off-grid electricity, all while helping Yale walk-the-walk in terms of sustainability. Tim White (MEM '15) from our business office kept the project on track with his passion and knowledge of solar design, while engineers of this system relied on off-grid expertise from experts in developing nations to ensure success.

Yale University went to online learning during spring break of 2020. Mike Ferrucci (MF '81) and Thomas Easley led a limited group of students on the annual Southern Forestry Field Trip at a time when other, international, field experiences had to be canceled. This trip marked the end of an era for the Southern Forestry Field Trip, as Mike Ferrucci officially retired last spring. Mike has moved on to spending time with his grandkids, building a barn, and driving his new tractor whenever he gets a chance. Buy him a beer if you see him and be sure to thank Mike for his many years of mentorship at Yale and his continued leadership in our profession. The Yale Forest staff, students, and faculty one day intend to celebrate his retirement in person – with a little luck in the late summer? The Southern Field Trip will continue with Thomas Easley and Joe Orefice taking the reins of this long standing tradition in future years.

Appropriate weather and a cohort of students who no longer had spring break plans enabled us to conduct a prescribed fire in the oak savanna at Yale-Myers Forest. Student interest in fire was still going strong in November 2020 and we were again able to conduct a prescribed fire at Yale-Myers, this time at the Red Front meadow. And silviculture still had field trips – just remote ones! Students watched Ashton via numerous YouTube videos that are still available for your entertainment!!!

COVID-19 presented unique challenges in how we offer summer programming. University restrictions prevented most in-person programming and much of our summer offerings at the Yale Forests were cancelled. However, research projects by faculty and students continued, and we were able to obtain special permission to hold our summer forest apprenticeship program ("Forest Crew") under strict COVID-19 guidelines. Researchers made advancements in their fieldwork examining relationships between invasive species and the carbon cycle as well as food web interactions. The forest management program was shortened (5 weeks) and the seven crew members were required to create a "family pod". The pod meant that all members quarantined and tested negative for COVID-19 prior to arriving at Yale-Myers forest, and committed to following strict protocol and distancing from non-pod members who were researchers, faculty and staff. The crew's work was cut out for them in the Morse Division, where mountain laurel was eagerly awaiting their arrival.

Jess Lloyd (MF '20) lead the crew as our new Forest Management Fellow. Her leadership was vital in making the program a success and she has continued to mentor incoming students working for Yale Forests as assistants. A shortened, fiveweek forest crew meant that there was still much work to complete in the woods during the fall of 2020. Jess hired Eudora Miao and Chris DeFiore, two incoming students to complete timber sale and forest management work through the fall, along with Bijan Gurung, our trusty GIS mapping guru. Jess and her forest crews were able to prepare 36 acres of forest for a crown thinning and 58 acres for group selection; and the second entry of a shelterwood overstory removal that was first established by the merry crew of 2006. A total of 159 thousand board feet are now ready for treatment and harvest. A few thousand board feet of hemlock was procured from Yale-Myers Forest, milled locally, and sent down to Horse Island to construct the Peabody Museum's new research station, which was designed and built by Yale students under the mentorship of Alan Organschi and Andy Ruff, faculty of the School of Architecture.

Now, what happened to Frank Cervo? If your recall from last year's Newsletter, Frank was serving as our Forest Management Fellow. We did not fire Frank, didn't even think about it. Frank did what all of our Yale Forest post-graduate fellows are encouraged to do: he used his education and experience at Yale to secure a permanent position. Frank now serves as the Eastern Connecticut Service Forester for the CT Department of Energy and Environmental Protection.

Rosa Goldman continues to serve as our Quiet Corner Initiative (QCI) Fellow. Before the pandemic she organized a workshop for QCI on winter animal tracking, led by guest instructor and naturalist Jacob Holzberg-Pill (MF '10). A lack of snow and frozen ground made for difficult wildlife tracking but Jacob's passion for natural ecosystems and expertise as an educator ensured that there was plenty for participants to see and learn. Other QCI in-person programs were not able to happen in 2020 due to COVID-19 but we continue on and adapt. One of the big success stories is that we have begun to create electronic "story maps" of our demonstration areas. The first was completed of the Red Front wildlife habitat demonstration area. The Tree Heaven stand dynamics trail is next. The forest hosted another group of students in residence as a COVID pod in the fall with Ashton's Management Plans course. Students stayed through September and into October at camp doing field exercises that then led to the development of management plans for QCI landowners. It, again, was a big relief valve for many students interested in field learning and being outside working in forests.

Lastly, but most importantly, Yale Forests were awarded a 2020 ACER Access grant from the USDA in October. This grant was awarded Joe Orefice and supports maple syrup related education and extension for southern New England, and is serving as a catalyst for a maple syrup production and demonstration area at Yale-Myers Forest. As you can imagine, we are having a hard time making sure Joe does not turn the whole forest into one large sugar factory with tubes descending in all directions to a large pan evaporator.

### The year ahead:

For the year ahead we truly want the Yale Forests to be a place full of hope. Spring courses at Yale School of the Environment started on February 1st and will go through to May with no spring break. This is not a normal schedule, nor a model for future years, but instead this is a schedule designed to keep our community safe and enable online learning. Courses will meet digitally and some have an in-person option. Two courses, Silviculture and Forest Management and Operations, are offering students an April field experience at Yale-Myers. Students in these two courses have an option to live and learn at Yale-Myers Forest during the month of April while participating in field exercises. We're excited about the opportunity and hopeful this effort may spark in-semester living and learning opportunities at the Yale Forests for students into the future.



The new off-grid solar array will power the facilities at Great Mountain Forest. Photo by J. Orefice.

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Spring is here with the snow only recently melted. Brad Cordtsen, a local logger, is working in the Plusnin/Myers Divisions in and around Basil Plusnin's house, now owned by Sam Hull. He just finished up removing the overstory of an irregular seed-tree shelterwood on Roswell that Ends Well (stand 1051), prescribed by the forest crew in 2017; and formerly known as Area 51, the original prescription done by the crew of 2003. Brad is set to move onto Allis' ATV Adventure Land (stand 8054) and Small Fry Flies Again (stands 8052 & 8010) later this winter, crown thinnings prescribed by the 2019 forest crew. These sites will be valuable field locations for our forest operations course this spring, in addition to meeting our silvicultural objectives.

Forest crew is planned for a full 12 weeks this summer (with a little luck) and students are currently making their best pitch for a spot through the application process. Other summer programming is still pending COVID restrictions but we are hopeful for a flurry of in-person

summer activity at Yale-Myers and the Yale Camp at Great Mountain Forest. Our maple syrup production equipment is on-order and 2021 will be the start of a new era in maple education, research, and production at the Yale Forests. YouTube videos and 'Zooms' of Joe conducting maple workshops started this year and have been a great success. Local producers are excited for future workshops, including maple silviculture and energy efficient syrup production techniques.

Yale Forests have partnered with the Smokey House Center in Danby, VT to offer a post graduate fellowship in forest conservation. The fellow will work with Smokey House Center (SHC) to evaluate and create a forest conservation plan for the SHC forest. This will include developing a written plan which addresses forest management in the context of wildlife, watersheds, rare species, climate change and carbon sequestration on SHC's 5,000 acres of forestland. We hope this will be the start of a long-standing partnership with SHC and the Yale Forests in Vermont.

Reid Lewis (MF '20) rounds out our team of Yale Forest Fellows through a post graduate fellowship he's accepted in forest carbon. Reid will be tackling the complex questions around how the Yale Forests could engage with forest carbon markets and how what's happening on the Yale Forests might tie in with Yale University's broader climate goals. Forest School faculty Tim Gregoire (PhD 85') and Brad Gentry are comentoring Reid along with us here at Yale Forests.

Post-graduate fellowships, like the positions those which Rosa, Karam, Jess, and Reid hold have been an excellent way for the Yale Forests to meet our educational mission while providing recent graduates with important leadership experience in forestry and land conservation. We look forward to another engaging year with our current students, current fellows, and alumni around the world.

Sincerely,

Joe Orefice and Mark Ashton







Left: Forest crew members Devon Erickson and Brittany Weinke learn how to scale logs and measure 6 ft. of distance between them. Top Right: Jess, Devon, and Schuyler go on quest for lost chestnut trees at Yale-Myers while they are podded up on a rainy weekend. Bottom Right: Zhi Li and Brittany Weinke master forest inventory. Photos by J. Lloyd, D. Erickson, and Z. Li.

#### (Continued from page 1)

isolation was both extremely surreal and extremely joyful. Austin gave Shrabya swimming lessons at Bigelow Hollow, Zhi taught Devon the best way to slice vegetables for "optimal chewing experience," Brittany and Schuyler made sure we always had fresh sourdough, and Jess and Karam turned the camp kitchen into a gourmet restaurant. And somehow, the entire Crew became obsessed with bossa nova.

Workdays went by fast. Our Crew focused on the Morse Division in the northeast quadrant of the forest. In our first week, we dug out water bars and ditches in the rain, work that left us sore in weird spots on our bodies. We moved onto a

rapid-fire inventory, analysis, and prescription for our stands, then dove into the challenge of marking trees for a crown thinning, "The Cut from Ipanema", and group selection system, "Cut some trees and leave them too".

In the middle of our time, Tropical Storm Isaías chugged through the forest, cutting power to the camp for about a week. The night of the storm, we finished work early to watch the clouds roll across the treetops, shivering in the brisk cold winds, lounging around the grill, beers in hand. The next day we spent cleaning up the roads and setting up a system for flushing the toilets and doing dishes. Steve Prinn

came to the rescue with a generator to keep our food from spoiling. We bathed at Black Pond at the end of the day, everyone loading up into the big green van and soaking in the pond. We enjoyed the camaraderie, but no one complained when power came back and we could return to showering under the big sassafras tree.

While the five weeks of Forest Crew 2020 may not have been the twelve weeks we anticipated, and sadly did not include chainsaw training, they were filled with the same hands-on learning and simple pleasures of living at Yale-Myers that each forest crew experiences, and for that we are extremely grateful.

#### NEWS FROM THE FOREST MANAGER

Jessica Lloyd, Forest Manager, MF'20

Hello all Yale Forests alumni. partners, community members, and supporters! I started my tenure as the Forest Manager late last Spring when the ephemeral flowers were blooming, but most of the activities at the forest came to a halt due to the ongoing COVID-19 pandemic. By now I have been lucky enough to witness all the signs of the changing seasons through a full year cycle as the Yale Forest Manager. I hope you are all finding your way through the woods this season; we have been fortunate to continue many of our management activities, and fill the gaps that have emerged with both cultivating new ideas and focus on the continued maintenance at the forest.

## SUMMER of Change

With our typical summer activities on pause, brought new opportunities to think about the way we relate to and learn about the land we call Yale-Myers Forest. Through a collaborative effort, the post-graduate forest fellows and undergraduate collaborators learned a more full history of the forest that centered aorund the Indigenous peoples that have and hold relationships with the land. The research that was started in the summer has grown into a working syllabus and speaking events to further the understanding of stewardship and build new relationships across the region and the university.

By mid-summer we were able to bring students back to the forest and continue our active management activities with Forest Crew (see article on Page 1 and read more about their experience in The Overstory).

## ALL Forest Management

Not everything was virtual this year. Fall at the forest was active

with finishing the silviculture prescriptions for the timber sales from the summer, conducting a prescribed burn in the Red Front wildlife management area, and overseeing active logging operations. We also had the opportunity to apply our skills outside of the Yale-Forests and provided our chainsaw services to a local land trust in Branford to clear trails from a fall windstorm.

It was particularly satisfying to have the opportunity to return to some of the timber harvests that I marked as a member of the Forest Crew in 2019. All's well that ends well, and Small Fry is certainly Flying Again as logger Brad Cortdsen wraps up the harvest of a Crown Thinning that the 2019 crew marked in a mixed stand of the Turkey Hill Division.

While we may not have yet figured out how to paint and harvest trees over Zoom, we did prepare for a remote FSC audit this year (see

Sale Name	Acres	Volume (Mbf)	Silviculture Prescription	Sale Name Origins
The Cut From Ipanema	36	63	Crown Thinning	Reference to a popular Bossa Nova song written by Antônio Carlos Jobim and Portuguese lyrics by Vinícius de Moraes that was often played and sung by members of the 2020 crew.
Cut My Trees and Leave Some Too	58	101	Group Selection System and Overstory Removal	Unconfirmed origins but may have surfaced as a juxtaposition to the idiom "you can't have your cake and eat it too".

Timber Sales prepared by the 2020 Forest Crew.

article by Eudora Miao). The virtual audit required us to visit various sites around the forest with a Go-Pro, providing hours of scenic entertainment.

# CREATING Community in the Cold of Winter

Despite the challenges that COVID presented we still found ways to come together over the Winter. The Yale Temperate Forestry group coordinated a harvest of mountain laurel among their leadership team. In lieu of the traditional Christmas trees, the students and staff prepared holiday wreath kits to provide students back in New Haven with some cheer during finals week.

I also had the opportunity to work with other women foresters for a tree removal for the organization Junta. Junta provides social and economic services for the local New Haven community and <u>teamed up</u> <u>with foresters</u> Sara Santiago (The Forest School), Caro Scanlan (Urban Resources Initiative), and me (Yale Forests) to remove a large Norway Maple that came down during a heavy wind storm.

The time indoors over winter also allowed for the planning of more events led by women in the spring, and we are excited to host another women's chainsaw training at the forest in May.

## SHARPENING Our Skills

During that weird in-between time when snow still beckoned while spring teased us with a few days of spectacular sunshine, the Forest Management team took the time for routine maintenance. Led by the camp Caretaker, Steve Prinn, we cleaned the bugs out of the

buildings, sharpened our tools, and cleared the roads and trails that were left blocked by trees from recent wind storms. We all enjoyed some extra practice with the chainsaw!

#### SIGNS of Spring

It's such a delight to watch the forest reawaken as both plant life and student life return to the Yale-Myers Forest. Spring flowers are making their appearance in the understory before the canopy closes, and forestry students are in residence to participate in the field component of their Silviculture and Forest Operations courses. You can read more about the students living at camp for their Spring field courses in the upcoming edition of The Overstory. You can subscribe here!



Dr. Mark Ashton demonstrates the different stages of forest succession to the 2020 forest crew members. Photo by J. Lloyd.

#### RESEARCH NEWS AND NOTES

Karam Sheban, Research Manager MF'20

2020 was not the year anyone expected, and it raised more questions than it did answers. For a forest that plays host to dozens of active research projects and programs, these questions included what kind of research can safely proceed? Where do we need to take a pause? When can we start up again? With these questions guiding us, 2020 was a year of reflection.

While some programs, such as the Louise H. and David S. Ingalls Field Ecology Program, were put on pause for this season, research did go on. Researchers developed new projects, collected data, and published research papers. And the forest itself seemed almost not to notice that 2020 was different than any other year. For an overview of research programming and activity at the Yale Forests, visit us online at <a href="http://forests.yale.edu/research">http://forests.yale.edu/research</a>.

#### Kohlberg-Donohoe Research Fellowship

One group of researchers to soldier on through the uncertainty of the year were the Kohlberg-Donohoe fellows. The fellowship, closing out its 4th year in 2020, offers competitive research grants to Yale University students who are conducting research at any of the School Forest properties.

The fellowship was awarded to three students in 2020: Eli Ward and Nathalie Sommer, both YSE doctoral students, and Dahn-Young Dong, a YSE master's student. Eli's research has taken her into the weedsshe is studying a suite of invasive plant species common to New England Forests, and trying to better understand their relationship to disturbance in the forest. If you are interested in learning more about Eli's research, check out her profile in the Quiet Corner Initiative's fall newsletter.

Nathalie used grasshoppers to study how the personalities of individuals within a species affect community population dynamics. Her work was recently published in the journal Ecology and Evolution. And Dahn-Young is exploring the effects of changes in the physical environment on the genetic structure of populations of wood frogs.

For more details from each fellow on their research, take a look at our new website: forests.yale.edu/research/students/Kohlberg-donohoe-research-fellowship/Kohlberg-donohoe-fellows.

#### Other Research

In addition to the excellent work being done by Kohlberg-Donohoe fellows, 2020 saw a number of new research projects started at Yale-Myers forest. Sinéad Crotty with the Yale Carbon Containment Lab is using Yale-Myers as one of seven sites where she will be testing the effects of management on the decomposition rates of slash piles, the woody debris that results from logging activity. The goal is to find out whether simple interventions—such as elevating the slash or treating it with a lime-

wash solution—might decrease decomposition rates and reduce carbon lost into the atmosphere.

Another study that kicked off this year is being conducted by a **Central Connecticut State University** doctoral student, Katerina Gillis, who is tracking fisher (Pekania pennanti) populations in the state of Connecticut. The species is in the weasel family, and her studies seek to understand how repopulation of the species on the eastern side of the CT river compares to the western side of the state where fisher was reintroduced. Katerina is using bait and camera traps to document the species, and so far is finding evidence that large areas of connected forest provide suitable habitat for fisher repopulation.

#### ngalls Field Ecology Program

While we were not able to carry some of our favorite programs forward this past year—including the Ingalls Field Ecology Program and the Summer Research Seminar Series—2020 was still full of success, progress, and hope for the future. And we are looking forward to all the great research to come in 2021.

You can find a list of research publications from 2020 at our website: <a href="https://forests.yale.edu/research/publications">https://forests.yale.edu/research/publications</a>.





Top: Eli Ward plants tree seedlings in a recently harvested shelterwood system. Bottom: The site of Nathalie Sommers' experiment that explores invasive species and food web interactions. Photos by E. Ward and N. Sommers.







Top Left: Jacob Holzberg-Pill points out signs of recent beaver activity in a wildlife tracking workshop (pre-COVID19). Top Right: Camp Caretaker Steve Prinn and dog Banksy maintain the roads and trails. Bottom: Camp Caretaker and local Steve Prinn stays warm over the winter with his active maple sugaring operation. Photos by R. Goldman, J.Lloyd, and J.Lloyd.

## NEWS FROM THE QUIET CORNER

Rosa Goldman, MF '20

That 2020 was a hard and unusual year needs no repeating. For the Quiet Corner Initiative, social distancing meant giving up many of the events and programs that we look forward to year after year. We had to pause our Climate Change Field Series (though we hope to continue it when we are able!); we couldn't host our community for research seminars and environmental films this summer; and we were so sad not to gather with everyone for our annual Harvest Festival. Nevertheless, we still learned and worked together with the Quiet Corner community this year, and we have plenty to look back on.

In February, before we understood what was in store for us this year, we were fortunate to host Jacob  $\stackrel{\cdot}{\text{Holzberg-Pill}}$  ('10 MF) for a wildlife tracking workshop - our last in-person event. We'd hoped for a snowpack that day that would allow us to hunt for animal tracks, but the ground remained bare. That wasn't a problem, though – Jacob led the group in a free-flowing exploration of the beaver pond just below the Yale-Myers Camp, encouraging close observation and reminding us that small signs of life are everywhere around us, if only we stop to look for them. A good mindset to live by always, and perhaps especially over the past year.

We had more plans for spring and summer workshops, but like everything else, in-person QCI programming ground to a halt in the spring. In an effort to provide an antidote to the quickly growing onslaught of Zoom obligations and offerings, we launched a Spring Virtual Film Series, recommending an environ-

mental film each week for folks to watch on their own at home. We watched several films, including The Biggest Little Farm, The Salmon Forest and Treeline. We were also thrilled to unveil the first of our virtual interpretive trail Story—Maps in early May, which takes visitors on a walk of the Red Front Trail at Yale-Myers Forest – no travel required. We're looking forward to releasing more virtual trails in 2021; stay tuned!

In July, a group of Forest Fellows and current students began The Yale Forests Reading Group, focused on understanding Indigenous relationships to land and narratives of place in the area surrounding Yale-Myers Forest. What began as a small-group endeavor quickly grew as it became clear how many people in our community wanted to do this work with us, and many QCI members have been participating. So far, the reading group has covered topics such as Indigenous erasure and the wilderness myth, land theft and dispossession, King Philip's War, and federal and state recognition. In 2021, we are now expanding to include events, as we begin the year focusing on Indigenous stewardship.

QCI's Woodland Partnership was thankfully able to continue this year through the Management Plans for Protected Areas course, albeit a bit reduced in size. Following in the footsteps of the successful Forest Crew at the end of the summer, we were able to host 5 students at Yale-Myers Forest for the month of September. The students lived together as a pod at camp while they learned the field skills necessary to put together their management plans. Two teams of

students prepared management plans this year for two Quiet Corner land-owners, bringing our total number of plans up to 52 since the program began in 2011, covering over 4,300 acres.

To round out the year, in December we hosted Connecticut DEEP Service Foresters Frank Cervo ('19 MF) and Andrea Urbano for "Get to Know Your Forester: How and Why We Manage Forests." This webinar introduced the profession of forestry and forest management and was attended by landowners and conservation professionals across Connecticut. This year has seen a lot of public controversy surrounding forest management in the state, and we were glad to help explain the ins and outs of management to folks who might not have heard much about it before.

We have lots in store for 2021. In addition to the aforementioned virtual trails and reading group events, we'll be planning more QCI programming in the spring and summer - and we sincerely hope that some of it can be in person! We've also launched the Yale Forests Maple Education & Extension Program, designed to provide maple producers in Southern New England with resources to manage healthy, resilient sugarbushes. We've held one virtual workshop so far and are looking forward to hosting more, in addition to ultimately setting up our own maple demonstration areas at Yale-Myers. No matter where or how we are able to meet, we're looking forward to continuing to engage with the Quiet Corner community.

#### STUDENT PERSPECTIVES

Eudora Miao, Assitant Forest Manager, MFS '22



Eudora observes a wood frog in the fall.

he air was warm and the mosquitos still swarming; the trees still lush green and the breeze a blessing. But the camp stays empty as a new cohort of MF and MFS students are settling into New Haven or figuring out what a remote semester will be like from across the globe. It was the start of the semester but our time at Yale started quietly and remotely. As a first-year student, I have found working and learning at the forest an opportunity to both grow as a forester and reorient myself during this strange time.

The experience in the forest that was least affected by COVID?

Timber cruising – something that foresters have been doing for centuries. Other than the fact that we now have masks on and hand sanitizer in the van, it is still the same DBH tape and tally book, still walks in the forest hugging the trees one by one. In the fall, most of my time in the field has been devoted to finishing up a group

selection system that was started in the summer. Selecting trees is not easy, knowing that the tree I choose with my spray of paint will be cut in the next year or so. Having come from experiences of oak woodland restoration where I leave the strongest, tallest, healthiest trees, and fell the short, weak ones, I found crown selections not as straightforward. Our Forest Manager Jess taught us the trick – to look up. Yes, to look up, into the canopy, the spreading branches that determine the future of the forest. I learned the perspective of looking for potential winners of the next few decades and deciding which competing trees we are going to cut to make space in the canopy for them to grow.

The experience in the forest that feels most characteristic of COVID?

The annual end-of-year Forest Stewardship Council (FSC) auditing. Going virtual for an FSC audit is not an easy task. We received a package of GoPro camera and batteries, which we used to record specific operations and conditions in several sections of the forest that was selected for review. In addition to that, when cell signals allow, our auditor virtually toured around the forest through Skype calls, asking questions for features from water bars to timber sale boundaries. We try to provide as much of a comprehensive view to the auditor as possible, combined with the stakeholder interviews that he conducts through phone calls, to help him determine Yale Forests' FSC compliance, and if any improvements need to be made.

Anything in between on the spectrum of COVID experiences?

Although it had been a difficult virtual semester, there had been lots of efforts to create opportunities for forestry students to be at Yale-Myers Forest (YMF). On a dry, bright November day, the budding foresters jointly escaped the zoom world, drove up to YMF, changed into fire gear, loaded up the drip torch and water tank, and headed to a patch of meadow at the Red Front Trail for a prescribed burn that is the first for several of us. On another crispy morning, the Forest Dynamics class came out for a field trip near the camp. Having Tom Wessel's Reading the Forested Landscape in our minds, we walked to different sites with lecturer Marlyse Duquid to see and feel many features of the forests' past and present – stone walls, old field white pines, decaying stumps, and to our delight and surprise, a couple of freshly chewed young trees, hopefully signaling the return of beavers once again to the camp area. While in this special time we do not have as many opportunities to experience the forest, any time here has definitely become a special memory for us.



Students participate in a prescribed fire as part of YMF management activites.

#### WELCOME TO OUR NEW POST-GRADUATE FELLOWS!



#### **Forest Carbon Fellow**

Reid Lewis (MF '20) started a newly created position as the Forest Carbon Fellow in December of 2020. Raised in the dry forests of Flagstaff, Arizona, Reid is interested in the potential of forest carbon markets to fund scalable sustainable forest management. As a Forest Carbon Fellow, Reid's work explores the complex carbon dynamics of the Yale Forests. Reid enjoys a good

game of chess, going for a stroll, and staying in touch with his family.

His favorite tree is the ponderosa pine when he's yearning for the Southwest and northern red oak when he feels like a Northeasterner.



## Forest Manager

Jess Lloyd (MF '20) became the Forest Manager in June of 2020. As a student she had the opportunity to further explore the relationships between people and plants. Her interests are primarily in community-based land stewardship and the role of forests to provide an array of services, particularly for public health. Jessica is from California and attended UC Davis as

an undergraduate, but has cherished the opportunity to learn about forest ecosystems around the globe. Before coming to Yale she worked in New York City and Rio de Janeiro in the field of urban restoration.

Her favorite tree is the Ginkgo but is also quite fond of trees in the Juniper genus.



## Research Manager

Karam Sheban (MF'20) joined as Research Manager in September of 2020. In his role, Karam works with others interested in conducting research on the School Forests. He is also conducting agroforestry research on the Yale School Forests and across the Northeast. Before moving to New Haven, Karam was a lifelong Ohio resident. He worked in the forests of Appalachian Ohio promoting the adoption of forest farming and other agroforestry practices. As a student, his research focused on the intentional cultivation of ginseng in the Catskill Mountain region of New York.

His favorite tree is the sugar maple!









Top Left: Tree Farm Manager Schuyler Borden stewards the holiday tree farm over the summer. Top Right: Snow falls on the holiday tree farm in December. Bottom Left: Students harvest and prepare DIY mountain laurel holiday wreath kits for their peers back in New Haven. Bottom Right: A contactless pick up of wreath kits is coordinated at Marsh Hall for students to bring home some holiday cheer from Yale-Myers forest. Photos by B. Weinke, S. Santiago, S. Santiago, and J. Lloyd.





#### **THANK YOU**

We would like to thank and acknowledge donations and gifts from various friends and alumni for allowing us to engage the students with our neighbors and for providing both students and landowners with a learning environment focused on sustainable land management. Thank you to hundreds of alumni, donors, and friends.

Top: Brad Ward participates in a prescribed burn. Left: Logger Tom Walker estimates the volume of timber in an oak tree.

Right Upper: The YMF Summer pod celebrates the weekend with a brunch of chicken and waffles.

Left: Forest pup Juniper scales the log of a recently harvested pine tree.

Photos by J. Orefice, J.Lloyd, J.Lloyd and J.Lloyd.





## 2021 Summer Seminar Series

JUNE 9TH

Food, Fear, and Refuge in a Bug-Eat-Bug World

June 23RD

Biological Control of Emerald Ash Borer in Connecticut

JULY 7TH

**Growing Wild-Simulated American Ginseng** 

JULY 21ST

**Urban Forest Stand Dynamics and Restoration Pathways** 

\* All seminars begin sharply at 6:30pm on Zoom. More information can be found on our website.