

RIPARIAN LANDS NATIVE SEED PARTNERSHIP NEWSLETTER

Red maple (*Acer rubrum*)
© Intervale Center

Request for Feedback

Brooke Fleischman (Intervale Center)

With our first round of newsletters released in February and July 2024, we are requesting feedback from our readers! Help us ensure that we are sharing the most applicable information at the right time by taking a few minutes to answer some questions in [this](#) poll. Input will be open for 30 days, so please get your responses in!

Additionally, if you have topic ideas for future newsletters that you'd like to contribute, reach out to me at brooke@intervale.org.

Thank you and happy reading!

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Silver Maple-Ostrich Fern Riverine Floodplain Forest natural community type in North Troy, VT.
© Intervale Center



The Field Season: Spring 2024

Written by: Brooke Fleischman (IC) & Jess Colby (NWSC)

In 2023, the Intervale Center's Conservation Nursery received funding from the [Lake Champlain Basin Program](#) Native Tree Nursery Grant. A portion of this funding was set aside for two spring seed crew members for 2024 and 2025 whose season runs from April 1st to June 21st. These positions were created to boost capacity in our spring seed collection season which is especially time sensitive and includes a lot of our high priority species such as silver maple, shrub willow, and balsam poplar. Once the IC seed crew members, Maddie and Reese were hired, we hit the ground running and starting looking for new seed source locations and kept a close eye on how phenology progressed across the Champlain Valley and parts of central Vermont.

NorthWoods Stewardship Center's Riparian Lands Crew has continued to be funded by the [Great Lakes Fisheries Commission](#) through [Vermont Fish & Wildlife](#) (VFWD). With both Jake and Alex returning from last year, they brought with them a wealth of knowledge and a drive to learn more about the species that gave us a hard time last year. This spring we were able to focus on tracking the phenology of all of our targeted species with much more precision than in previous years. Knowing what species would be collected later in the season, these two were able to determine important phenological time periods to assess some of our fall tree and shrub species and have begun identifying locations that should be bountiful collection sites.

Priority Species

Red Maple - *Acer rubrum*
Silver Maple - *Acer saccharinum*
Speckled Alder - *Alnus incana* subsp. *rugosa*
Yellow Birch - *Betula allegheniensis*
Gray Birch - *Betula populifolia*
Silky Dogwood - *Cornus amomum*
Red-Osier Dogwood - *Cornus sericea*
Tamarack - *Larix laricina*
Red Spruce - *Picea rubens*
Balsam Poplar - *Populus balsamifera*
Eastern Cottonwood - *Populus deltoides*
Quaking Aspen - *Populus tremuloides*
Black Cherry - *Prunus serotina*
Chokecherry - *Prunus virginiana*
Northern Red Oak - *Quercus rubra*
Shrub Willow - *Salix* spp.
Black Willow - *Salix nigra*
Northern White Cedar - *Thuja occidentalis*
American Elm - *Ulmus americana*
Nannyberry - *Viburnum lentago*
Highbush Cranberry - *Viburnum opulus* var. *americanum*



Shrub willow (*Salix* spp.) male flowering catkins 4/29/2024

© Intervale Center

SPRING SEED COLLECTION UPDATES



Shrub willow (*Salix spp.*) seed dispersal 5/21/2024
© Intervale Center

In addition to our hired seasonal crews at the Intervale and NorthWoods, we also received collection support from a VFWD seasonal hire, Ben Applegate, groups from the [University of Vermont](#), and a few of our newer partnering organizations which we talk more about on page 11. With more hands on deck, we had the time to make more accurate seed counts and run germination tests on samples of our collections from spring 2023 and 2024. The chart below shows the average germination results for each species. We had varying levels of germination success with species in the Salicaceae family such as balsam poplar, eastern cottonwood, quaking aspen, shrub willow, and black willow. These species generally don't produce empty seeds and don't require any pre-treatments prior to testing so we should see higher rates in species such as shrub willow and black willow. These lower rates could be due to a variety of factors and we will continue testing our methods in the spring seasons to come. For species such as red maple, silver maple, and American elm these germination results seem to fall within a relatively standard rate of germination.

Spring 2024 Germination Test Results

Species	Average Germination Test Results
Red Maple	84%
Silver Maple	96%
Balsam Poplar	77.75%
Eastern Cottonwood	66.25%
Quaking Aspen	94.5%
Shrub Willow	45.625%
Black Willow	50%
American Elm	77.4%

Opportunistic Species

- Common Serviceberry - *Amelanchier arborea*
- Black Chokeberry - *Aronia melanocarpa*
- Paper Birch - *Betula papyrifera*
- Common Buttonbush - *Cephalanthus occidentalis*
- Pagoda Dogwood - *Cornus alternifolia*
- Black Ash - *Fraxinus nigra*
- Green Ash - *Fraxinus pennsylvanica*
- Butternut - *Juglans cinerea*
- Eastern White Pine - *Pinus strobus*
- American Sycamore - *Platanus occidentalis*
- White Oak - *Quercus alba*
- Swamp White Oak - *Quercus bicolor*
- Bur Oak - *Quercus macrocarpa*
- Common Elderberry - *Sambucus canadensis*
- Wild Raisin - *Viburnum nudum*

SPRING SEED COLLECTION UPDATES

APPROXIMATE SEEDS COLLECTED THIS SPRING

Quaking Aspen (*Populus tremuloides*) - 4,045,809

Shrub Willow (*Salix* spp.) - 2,607,116

American Elm (*Ulmus americana*) - 27,593

Silver Maple (*Acer saccharinum*) - 219,874

Red Maple (*Acer rubrum*) - 46,450

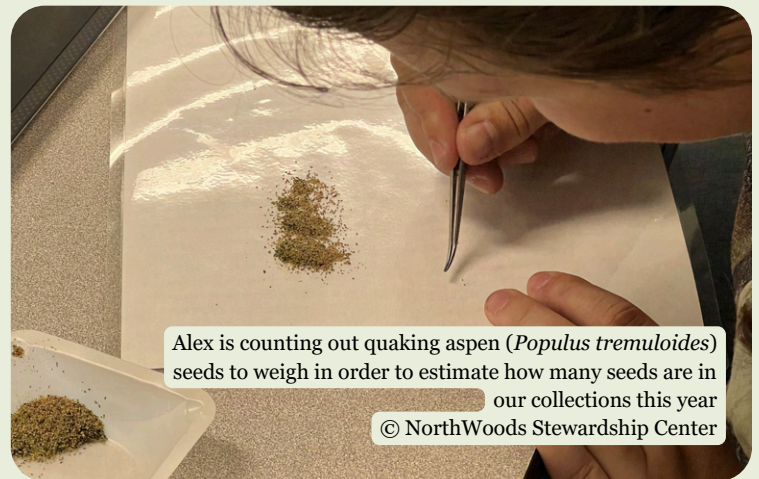
Eastern Cottonwood (*Populus deltoides*) - 487,544

Balsam Poplar (*Populus balsamifera*) - 485,277

Black Willow (*Salix nigra*) - 2,890,720

Total: 10,810,473

PHOTOS FROM THE FIELD



DIRECT SEEDING UPDATE

These direct seeding trials are being conducted by VFWD, CRC, NWSC, and IC. For more information, reach out to Pete Emerson at peter.emerson@vermont.gov.

Upper Lamoille River Access Area - Wolcott, VT

Berm Removal

Written by: [Meghan Rodier](#) (LCPC) & [Will Eldridge](#) (VFWD)

In partnership with the Vermont Fish and Wildlife Department (VFWD), in summer of 2022 the [Lamoille County Planning Commission](#) (LCPC) received a Design/Implementation Block Grant funded by the [Vermont Department of Environmental Conservation](#), administered by [Watersheds United Vermont](#), for Final Design and Implementation of a Berm Removal. [SLR Consulting](#) designed the project and [Berry's Trucking LLC](#) was hired to implement it. The 1-3 foot tall and 500 ft long berm was removed at the end of April 2024. At the same time, a large patch of knotweed was mechanically removed to allow native vegetation back into the floodplain. This berm removal project will enhance floodplain access and allow floodwaters to dissipate naturally into the nearby vegetated field. Increasing access to the floodplain will reduce scouring and erosion near the Elmore Pond Road bridge and along the streambank of the Lamoille River.

Additionally, a novel approach of mounding the spoils piles is being tested to see if the steep vertical sides will discourage herbivory, as has been observed in forest tip-up mounds. The exposed soil under the former berm, construction routes, and spoils disposal area provided opportunities for direct seeding.

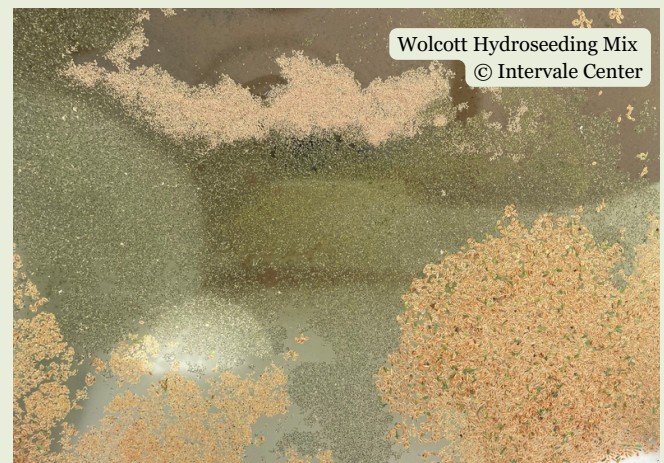
Direct Seeding

Written by: [Brooke Fleischman](#) (IC)

The berm removal project provided an opening of bare earth to extend some of our direct seeding application. The hired contractors used an herbaceous mix of perennial forbs and grasses while we used some uncleaned tree/shrub seeds from 2019-2022 collections. These seeds were distributed on the soil mounds and across the disturbed areas outside of our experimental plots. Within the experimental plots at both the Wolcott and Johnson Farm sites, we are testing to see if species that disperse seeds in the fall are better cast in the field in the fall to stratify naturally and risk predation, or attempt to replicate the stratification process in coolers over the winter and cast them out the next spring. Due to the December 2023 flood, approximately 2,000,000 seeds that were cast out last fall are likely not present anymore. This in conjunction with the timing of the berm removal, required us to pivot and continue the direct seeding application without knowing if the fall seeding treatment would have been successful or not. Approximately 5,000,000 seeds of both 2023 and 2024 collections were cast out at the end of June by use of both hydroseeding and hand casting methods. This included the fall dispersing species that were stratified in the ICN cooler over the winter. With better cleaning methods in place from last year and limiting only very small seeds to go in the hydroseeder, the application went much more smoothly than it had last fall. Since the hydroseeder is originally made for grass seed, large or uncleaned tree/shrub seeds can clog the machine and make its use much less effective. Through trial and error, every season we are able to learn more about the best use of equipment and seed in this context. This summer, the [Connecticut River Conservancy](#), Vermont Fish & Wildlife, NorthWoods Stewardship Center, and the Intervale Center will continue to monitor all of the direct seeding sites.



Post construction-restored floodplain.
© Meghan Rodier, Lamoille County Planning Commission



Wolcott Hydroseeding Mix
© Intervale Center

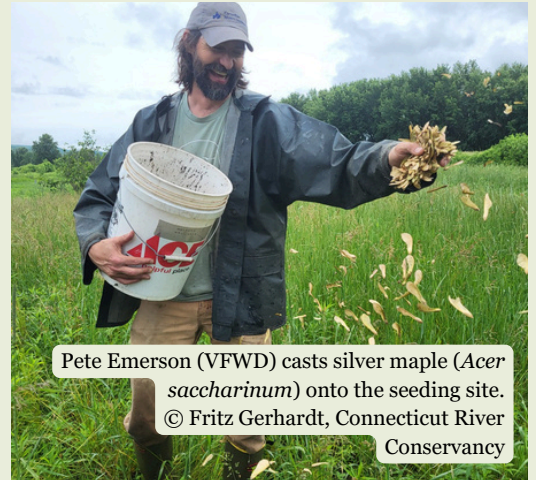
DIRECT SEEDING UPDATE

These direct seeding trials are being conducted by VFWD, CRC, NWSC, and IC. For more information, reach out to Pete Emerson at peter.emerson@vermont.gov.

Johnson Farms Wildlife Management Area - Canaan, VT

Written by: *Brooke Fleischman (IC)*

The December 2023 flood also impacted the treatment field at Johnson Farm Wildlife Management Area. The approximate 2,500,000 seeds that were dispersed last fall are likely displaced down river, causing us to start over this spring. Approximately 7,300,000 seeds from both 2023 and 2024 collections were cast in late June. The pre-treatments and application methods were the same as what was used at the Upper Lamoille River Access Area in Wolcott. Unfortunately, after another flood this July, all of the seeds that were dispersed this spring at both Canaan and Wolcott sites may have been washed away. We are hopeful though that some silver maple seedlings could still be present. In the following weeks, monitoring will be conducted to assess both sites post-flood.



Pete Emerson (VFWD) casts silver maple (*Acer saccharinum*) onto the seeding site.
© Fritz Gerhardt, Connecticut River Conservancy

Valley Brook Streambank Management Area - Morgan, VT

Written by: *Gabyrel Gianoni (MWA)*, *Jess Colby (NWSC)*, *Brooke Fleischman (IC)*

Through improved seed handling protocols, the NorthWoods Riparian Lands team realized that seeds collected in previous years (2020, 2021, and 2022) were not handling storage well and should be cast out immediately to create space for incoming higher quality seed. A lot of these seeds had not been processed as well as those collected in 2023 and were not germinating as expected during testing. In an effort to purge old collections before they deteriorated completely, the Riparian Lands team decided to use them to seed the newly formed Valley Brooke Streambank Management Area following the intensive restoration efforts completed during the summer of 2023. In early May, NorthWoods Riparian Lands team met up with the [Memphremagog Watershed Association](#) (MWA) to conduct a site check of the fall 2023 direct seeding area and see if seedling growth was occurring. The team ended up finding many little chokecherries growing throughout the seeded area (pictured). The team will continue to visit this site as the season progresses to check on further native seedling development. NorthWoods will continue to sow processed fluff remnants on this site as well - as seeds are still encapsulated in the fluff are too labor intensive to clean.



Chokecherry (*Prunus virginiana*) seedling (5/6/2024).
© Jess Colby, NorthWoods Stewardship Center

This is an excerpt from the June 2024 Watershed Forestry Partnership Newsletter. Scan the QR code to continue reading about all the other incredible work being done at this project site (and many others)!



Silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), American elm (*Ulmus americana*), quaking aspen (*Populus tremuloides*), balsam poplar (*Populus balsamifera*), and shrub willow (*Salix spp.*) were among the spring species put out this past June on our direct seeding sites!
© Alex Sehl, NorthWoods Stewardship Center

Strategic Planning Process

Written by: Brooke Fleischman (IC)

This January, some core organizations of the Riparian Lands Native Seed Partnership met to discuss future visions to progress seed work in the state. Some emerging areas of focus included phenology tracking, seed facilities, capacity constraints in research, and distribution of seed. All of these topics are covered in more detail below.

Phenology Tracking

Due to capacity restraints, the Intervale Center and NorthWoods seed collection crews are relatively limited to scouting in areas of the Champlain Valley and Northeast Kingdom respectively. This spring, we developed a Survey123 form to engage folks in other areas of the state to help us track phenology and scout potential future seed collection locations. Additionally, in collaboration with the [Vermont Center for Ecostudies](#), a project on iNaturalist was created to pull existing phenology data, allow folks to annotate phenology data and add new points. Find the Survey123 and iNaturalist QR codes / links on the last page of the newsletter!

Seed Facilities

The Intervale Center and NorthWoods Stewardship Center are separately looking for ways that we can expand our infrastructure in the Champlain Valley and Northeast Kingdom. As we further our work, we have identified a need for larger, more specialized spaces for seed collection, processing and storage equipment.

Capacity in Research

The Connecticut River Conservancy, Vermont Fish & Wildlife, NorthWoods Stewardship Center, and the Intervale Center all have hands in the direct seeding trials, though we have identified a need for a research lead on this project. We are still seeking solutions for this aspect of our work.

Vision Statement

The purpose of this project is to develop a statewide partnership of organizations that work together to meet the need for local native tree and shrub seeds for restoration projects that support climate mitigation, water quality, and healthy habitats.

Distribution of Seed

During the winter of 2023, the Intervale Center ran a seed cost analysis based on all our seed processing data collected that year. Results from 2023 and future analyses will help us develop models for how we distribute seeds. We are still early in this process and are trialing different options, such as labor sharing, in the interim. If you are in need of seed, reach out to brooke@intervale.org.

Species Spotlight!

Follow the spring phenology of Eastern Cottonwood (*Populus deltoides*) with us in the Champlain Valley!



Male flowering catkin 4/29/2024
© Intervale Center



Female flowering catkin 4/29/2024
© Intervale Center

Watershed Forestry Partnership Annual Meeting

Nursery Roundtable Discussion Outcomes

Written by: Shawn White (UVM Watershed Forestry Partnership Coordinator) & Brooke Fleischman (IC Statewide Seed Coordinator)

At the end of March, the Watershed Forestry Partnership hosted its first in-person annual meeting since 2019. Many incredible presentations and discussions were held. One of these explored native tree nursery production and the complex processes that go into planning for floodplain restoration projects. Many folks were able to share their struggles and ideas with this work - a great first step in improving communication between growers and planters, fostering collaboration between nurseries, and improving project outcomes. Shawn White and Brooke Fleischman are working on an article to summarize some key points from this discussion and describe some next steps being taken to benefit both native plant growers and restoration practitioners. Keep an eye out in the following weeks for the article's release!

Northeast Seed Network *Subregional Hub*

In March 2023, the [Ecological Health Network](#), [Native Plant Trust](#), and many other partners launched the Northeast Seed Network. Their mission is to “to develop a community of practice to improve the accessibility of the source-identified genetically diverse seed and plant material for the ecoregions of the Northeast and Northern Mid-Atlantic States” as well as “foster communication of knowledge and practice for healthy biodiverse landscapes through the use of plants and seeds from the ecoregions of the Northeast and northern Mid-Atlantic States.” With such a large geographic area to coordinate a diverse range of social actors, the Northeast Seed Network has started to identify a need for “sub-regional hubs”. Conversations have begun in potentially creating a sub hub that includes Vermont, New Hampshire, Maine, Atlantic Canada and parts of northeastern New York.

DID YOU KNOW?

Eastern Cottonwood and all its relatives in the Salicaceae family are dioecious! This means that male and female reproductive structures are on separate individuals.



Female catkin shifting from flower to pre-seed
5/10/2024
© Intervale Center



Female catkin in pre-seed 5/23/2024
© Intervale Center



Female catkin seeding 6/2/2024
© Intervale Center

SEED COLLECTION



University of Vermont

Summer Restoration Ecology Course

Taught by Kyle Whittinghill, this summer's restoration ecology course came out with both the Intervale Center and NorthWoods Stewardship Center's field crews to help with shrub willow and silver maple seed collection. This drastically boosted our efficiency in working with these species and provided an educational opportunity for the students in the course.



Sustainable Innovation MBA Program

Brian Lamoureux, a graduate student in the Sustainable Innovation MBA Program at UVM's Grossman School of Business, helped coordinate fellow students to come out with the Intervale Center's spring crew to collect shrub willow and American elm.



North Branch Nature Center

Friends of the Winooski River

Near the end of May, Brooke went out with folks from North Branch Nature Center (NBNC) and their Master Naturalist Program as well as Friends of the Winooski River (FWR) to collect silver maple seeds by canoe and kayak at The Nature Conservancy's LaPlatte River Marsh Natural Area in Shelburne. We plan to deploy this method of collection in future spring seasons because it gives us a different way of accessing some of the lower branches that hang over the water.

LAND ACCESS



Center for Agricultural Economy

"The Center for Agricultural Economy (CAE) is a 501(c)3 non-profit organization based in Vermont's Northeast Kingdom. Through programs that support food access, farm viability, and working landscapes, CAE is building a healthy, regenerative food system by promoting local foods and the people who produce them." In collaboration with CAE the RLNSP has been able to make connections with private landowners who are willing to allow seed collection to occur within the natural communities on their properties.

OUTREACH / TRAININGS



UVM Carse Wetlands Tour

The Fellowship for Restoration Ecologies and Cultures (REC) prepares undergraduate students at the University of Vermont for careers in the restoration of degraded ecosystems. REC aims to train leaders and members for the emerging green work force. For the past two years, NorthWoods Stewardship Center has been hosting the REC program's annual winter retreat for a snowshoe ecology walk with Sam Perron (Forest Stewardship Institute Director) and Jess Colby (Riparian Lands Program Coordinator). Jess and Sarah Redman (Northern Woods & Waters Steward, ECO AmeriCorps) headed over to tour REC's end of semester Carse Wetlands Tour to see the restoration work done by this year's students. Jess also used this time to talk to the program's professors about including seed sourcing and collection into the upcoming fall semester.



Biodiversity Jamboree

Hosted by North Branch Nature Center and Vermont Center for Ecostudies, the annual Biodiversity Jamboree is a summer nature festival that celebrates birds, bugs, plants, and pollinators in a day of outings, workshops, exhibits, kids activities, live birds, music, food, art, presentations, and more! Brooke (IC), Jess (NWSC), and Ben Fishbein (IC) tabled at the event. Ben sold some of ICN's container stock while Jess and Brooke focused on sharing information about the Riparian Lands Native Seed Partnership. Throughout the day, Brooke led a native tree and shrub ID walk as well as a seed collection workshop (pictured).



Cedar Circle Farm

Teen Farm Fellowship

The Teen Farm Fellowship is a 10-week program, from June to August, providing place-based, hands-on experiences for participants to learn how to manage a small, organic vegetable farm while gaining crucial job, team building and leadership skills. At the beginning of July, Brooke (IC), Ben Rodgers (IC Nursery Sales Manager), and Mar Wiltz (IC Intern) from the Intervale Conservation Nursery led a workshop with the farm fellows on native woody plant identification, invasive species removal, and native woody plantings.

Native Tree Species: Field Walk & Identification Workshop

Later that same week, Brooke returned to Cedar Circle to lead a program on native woody plant identification with folks from the community of Thetford and surrounding areas.



BioUniversity: Woody Plant Course

Written by: Jess Colby (NWSC)

A small cohort of folks from NorthWoods Stewardship Center, Intervale Center, Friends of the Winooski, VT Department of Environmental Conservation (DEC), Arrowwood Environmental, and several others converged at the North Branch Nature Center to attend their BioU: Woody Plants in the Field course during the first weekend in June! Led by VT State Botanist, Grace Glynn, and field naturalist, Brett Engstrom, this group developed skills in identification and learned how to use Jerry Jenkins' Northern Forest Atlas' Woody Plants of the Northern Forest photographic guide in the field. This two-day course worked to introduce 40 common species and spent a significant amount of time on willow and shrub identification.



Jess and Sarah on top of Owl's Head Mountain in Groton, VT.
© NorthWoods Stewardship Center

The first day was spent getting everyone accustomed to using the Northern Forest Atlas while walking around the North Branch Nature Center's campus. Brett and Grace led the group around to get everyone looking at woody plant species with a "botanist's eye". Slowly we worked as a group to come up with characteristics for each species, not jumping to our assumptions of what each plant was immediately. The Woody Plants of the Northern Forest photographic guide breaks down plants broadly into two different "Quick Guides" - buds and twigs or leaves - as well as by systematic sections. The book allows you to look at photos of different species in a single layout to help identify what you're looking at in the field. In the afternoon, the group split up to work on identifying species within an area of the NBNC campus. Brooke and Jess took the opportunity to work on identifying the various viburnum species near the Winooski River. It was great to slow down and really look at some of the species we are looking for without the added pressure of having to be collecting!

The next day, the group traveled to the Martin Covered Bridge in Marshfield to work on identifying various willow species as a group. We then continued on to Owl's Head and Kettle Pond to get experience looking at species found in different habitats.



(Left to right) Brooke Fleischman and Annie Jackson examine a patch of low shadbush (*Amelanchier humilis*), a closeup view of a male flower of shining willow (*Salix lucida*), a closeup view of flowers for European highbush cranberry (*Viburnum opulus* ssp. *opulus*), and Owl's Head in Groton, VT. .
© Jess Colby, NorthWoods Stewardship Center



Brett Engstrom talks to the group while visiting Martin's Covered Bridge in Marshfield, VT.
© Jess Colby, NorthWoods Stewardship Center



Looking ahead, we are thrilled to bring more of our locally sourced, Intervale-grown, riparian plants to sites in need this fall. If you or your organization are interested in partnering with us on a planting or stewardship project, we would love to hear from you. Our dedicated crew can provide the technical assistance needed to develop and execute land-management plans tailored to the specific needs of any site. This support can include guidance on project design, species selection, and best practices for soil conservation and watershed management. Bareroot stock sales for the fall are happening now!

Intervale Conservation Nursery

To learn more about partnering with us or to inquire about the diversity of species grown at the Intervale, reach out to Ben Rodgers at benr@intervale.org. By working together, we can make a difference in building resilient, working landscapes.



Redstart

Early this summer we were able to make significant improvements to our watering system, thankfully just in time for the hot and dry summer we've had! Most everything is looking robust, and putting on a good amount of growth, particularly the tamarack, speckled alder, and nannyberries. The weeds are also benefiting from the watering improvements and provide a classic challenge! We plan to harvest as the species go dormant in late October-early November for late fall planting projects.

Please contact Althea Dacey at althea@redstartconsulting.com for more information on fall orders.



Poultney Mettowee NRCDC Conservation Nursery

The Nursery crew had a great planting season and will be working on monitoring and maintenance on past restoration sites throughout the summer. Nursery propagation has been strong and the crew will begin transplanting our tray seedlings soon, look for our volunteer day event information if you would like to join! This season we plan on increasing our cutting production space and building a small greenhouse to allow us to start seed earlier in the spring. We have a high volume of potted stock available throughout the season and will have fall bareroot stock this year as well. Species we have larger amounts of include red maple, dogwoods, white oaks, buttonbush, willows, and viburnums. Please reach out with any questions or order inquiries! sadie@pmnrcd.org or (802) 287-6606



The Farm Upstream

The Farm Upstream is building a new native plant nursery as part of a collaborative fruit and veggie farm in Jericho, VT. Our current focus is on flowering shrubs from local Vermont genetics, both for conservation plantings and retail through our soon to be open farm store. Wholesale availability for spring 2025 will be limited, but a variety of Amelanchier, Viburnum, Salix, Cornus, and others are in the works for future seasons. Email thefarmupstream@gmail.com to be added to our wholesale list or to discuss anticipated future planting needs. Photos of a coyote poop found deep in the woods of Brandon in July 2023 and a few of the 100+ resulting Serviceberry seedlings lined out on our farm in June of 2024.



North Branch Nature Center

North Branch Nature Center's mission is Connecting People with the Natural World, and as of this spring, we're doing that through plant propagation. With support from the Intervale Conservation Nursery, and funding from the [Vermont Urban & Community Forestry Program](#), our new "teaching nursery" is already engaging learners of all ages. This spring, participants from our Vermont Master Naturalist chapter paddled the LaPlatte River collecting silver maple seeds. Our Forest Preschool class planted those seeds, which germinated on the preschoolers' graduation day! The purpose of this nursery is to create hands-on opportunities for our community to participate in riparian restoration and flood resilience action by growing trees for the NBNC floodplain and nearby areas in the North Branch watershed.



Essex County NRCD Conservation Nursery

Clara Fernandez Odell was hired as the Working Lands & Nursery Specialist at the Essex County Natural Resources Conservation District. She will be managing the native plant nursery in Ferdinand, VT. To inquire about the nursery and its operations, reach out to Clara at cfodell.essexnrcd@gmail.com

To learn about a couple more awesome nurseries, scan the QR code to read this summer's Watershed Forestry Partnership Newsletter!

Ausable Conservation Nursery
kiana@ausablecenter.org

Verterra Nursery
verterranursery@gmail.com



Intervale Center's Spring Seed Crew

Reese Qualls (*she/her*)

My name is Reese Qualls and I am originally from Haddonfield, New Jersey. In 2023, I graduated from the University of Vermont with a Bachelors of Science in Environmental Science with a minor in Studio Art. I have worked several field seasons, two of which conducting research for Professor Bill Keeton's lab at the University of Vermont and another at the NorthWoods Stewardship Center in East Charleston, VT as a member of their Watershed Conservation Crew. As I finish my fourth field season in Vermont, this one at the Intervale Center is unlike anything I had ever studied or expected from a seasonal job. The seed crew's focus on the spring seeding of Vermont's forests was eye-opening. I definitely struggled in the beginning when Brooke was teaching us the identifying features of monoecious vs. dioecious trees, as my academic background does not have much in the way of botany. However, the more we saw the more I was able to pick them out and identify them even with just winter buds. It did also help when the flowers and then leaves began to emerge. The highlight of the season came from my crew member, Maddie Smith, and our program coordinator, Brooke Fleischman. The days were spent scouting, collecting, and processing seeds, but we did it all with fun conversation and some silliness. The crew you work with really makes a field season special, and this one was definitely great. After the season wraps up, I am looking toward finishing applications for several grad schools with the hopes of getting a Masters Degree in Environmental Science or Ecology. I am very interested in the education side of ecology and conservation, and I would like to pursue a career as an environmental science teacher.



Maddie Smith (*she/her*)

Hi! My name is Maddie Smith, and I grew up in Newburyport, Massachusetts, but have been living in Burlington, Vermont for about five years. My passion for plants and environmentalism has been influenced by the gardeners, florists and landscapers of my family. I graduated from the University of Vermont in May of 2023 with a bachelor's of science in plant biology and a minor in geography. I was thrilled to join the Intervale Conservation Nursery's Spring 2024 Seed Crew this past April. With this being my first degree-related job out of college, I wasn't quite sure what to expect with my experience level and had some moments of doubt where I questioned my ability to adapt to a new learning environment. With the support of my fellow crew members, I've since let go of those doubts and have learned so much about tree identification, tree seeding processes, seed cleaning and storing, and why the collection of native tree seeds is important for our communities and ecosystems. It's been a pleasure getting to know Reese and Brooke over the past three months; we've shared lots of laughs and enjoyed our time scouting, collecting, and cleaning seeds. I've seen so many beautiful parts of Vermont that I've had yet to experience, which has been such a treat. I'll always look back on this opportunity fondly and would love to stay involved with the Intervale Center in the future. For my next adventure, I will be starting as a forest research assistant with UVM Rubenstein School's Silviculture and Ecology Lab as a member of their Seedling Crew. The project I will be helping with focuses on examining adaptive forest management strategies in northern hardwood and mixed-wood forests in New Hampshire and Vermont. I am eager to learn more about the methods used to study forests and continue to build on my knowledge of woody plants with this opportunity.

NorthWoods' Riparian Lands Crew

Alex Sehl (*she/her*)

My name is Alex Sehl, and I grew up in Redwood City, California. Growing up I spent time outdoors, went camping with my family and volunteered at tree plantings around my neighborhood, which fostered a deep appreciation for natural spaces. I graduated from the University of Wisconsin- Madison in 2022 with a Bachelor of Science degree in Biology and Environmental Studies with a minor in Sustainability. I worked with a handful of nonprofits throughout my college years, which cemented my desire to work in the nonprofit world following graduation. When looking for my first post-grad job in the

environmental industry, I found NorthWoods and joined the Riparian Lands Crew, and I loved it so much that I decided to return for a second season. I had never visited Vermont or even New England before I moved cross country and began my 2023 field season, so some of the trees and shrubs we were scouting and collecting from were new to me. Working on the direct seeding project alongside Jake and Jess has been extremely rewarding, as it paves the way for new buffer and floodplain forest restoration projects across Vermont. I am grateful to have been a part of honing the seed collection, storage and processing protocols. The trials and tribulations were worth it as we increased the quality of the seeds we collected to the point that some of our gray birch seeds got sent to be stored at the Svalbard Global Seed Vault this past winter. This position has taught me so much, brought some amazing people into my life and given me an in-depth look at Vermont natural communities. I could not have asked for a better crew to work with, we have made so many amazing memories. For my next adventure, I will be leaving the Riparian Lands Crew at the beginning of August to begin a Masters program in Tropical Botany through the EU funded Tropimundo Program. This is an exciting opportunity as this joint-masters program will take me to Belgium, Malaysia and Italy throughout my studies. While it is bittersweet leaving NorthWoods, I look forward to taking all of the knowledge and skills I have learned here abroad with me.



Jake Gallinger (*they/them*)

Hello! My name is Jake Gallinger and I am from Pembroke, Massachusetts. I spent a lot of time camping with my family growing up which cemented my appreciation for conserved land and helped to catapult me into my future line of work. I graduated with a Bachelor's degree in Wildlife Science from SUNY College of Environmental Science and Forestry in 2022. Here, I discovered a passion for protecting habitats and the wildlife that call them home, especially birds. I got to live and work all around the northeast since starting my education which has allowed me to fall in love with the myriad of ecosystems found in each state. My search for environmental jobs brought me to NorthWoods Stewardship Center the summer after graduation where I led a Youth Conservation Corps Crew at Moosehorn National Wildlife Refuge. I really enjoyed NorthWoods as an organization so I decided to apply the following year to be a member of the Riparian Lands Crew and was accepted! It was definitely a learning curve to familiarize myself with Vermont's native species and to navigate the intricacies of the project but by the end of the season, I felt very proud of everything we had accomplished and more confident in my skills as a riparian restoration ecologist. I had such a great season that it was a no-brainer to return for a second year and I am happy to continue to be a part of such amazing work. Getting to work with co-workers and project partners everyday has allowed me to meet so many incredible people in this field and likely many lifelong friends. I look forward to finishing out this season strong and taking some time to travel before seeing what lies ahead for next year. I hope to continue working in habitat restoration and water quality improvement wherever that may take me.

Seed Collection & Partnership to Come

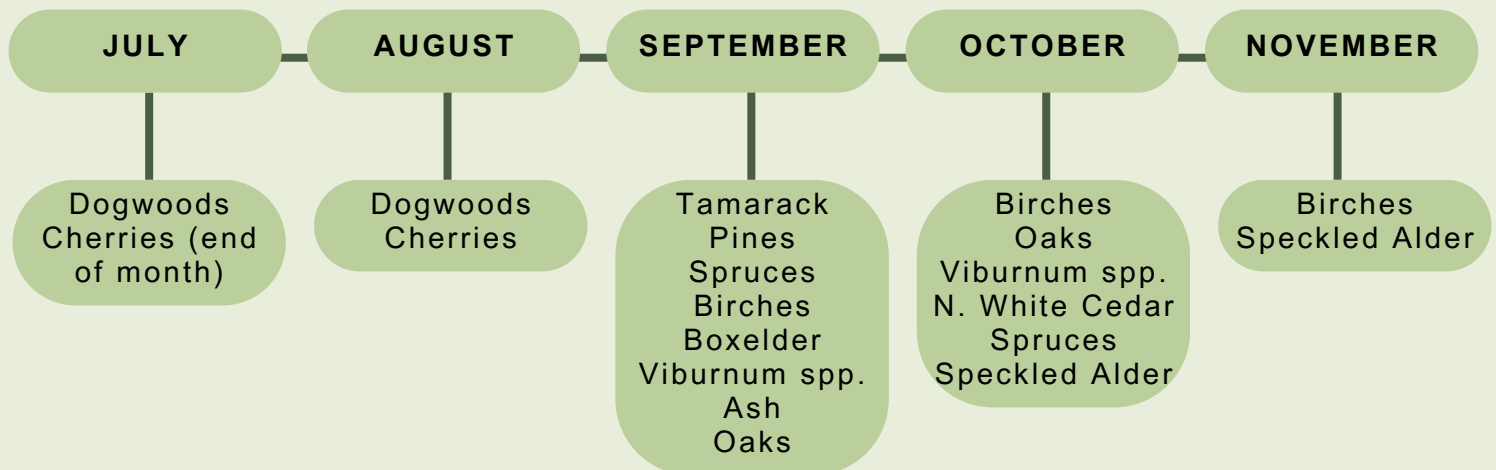
Written by: Brooke Fleischman (IC) & Jess Colby (NWSC)

This summer, we will have some new faces joining the team! With Alex Sehl moving on to her graduate program in August, Lia Ivanick (she/her) will be taking her place September 3rd as the other member on the NorthWoods Riparian Lands Crew with Jake Gallinger. Lia worked for NorthWoods last fall as part of the Watershed Crew, and we're so excited to have her back with us this year! At the Intervale Center, Marleyla (Mar) Wiltz is our UVM summer native seed intern. She is a forestry major that will be graduating in May 2025. Her internship will run from mid-June to the end of August, supporting Brooke in looking for seed source locations for all of our summer and fall target species as well as working with the Intervale Conservation Nursery in the greenhouse and production fields.

In the greater partnership, we are developing trainings and tools to further engage folks who may be interested in seed collection, processing, storage, and use. One of these tools we are looking into is known as "Squirrel". First released in Canada in 2023, "Squirrel is a purpose built seed collection tool and marketplace providing verifiable provenance tracking and communications between seed collectors and seed users." Now that it's available in the US, we are working on a pilot project with the developers to see if Squirrel could be a good fit for us in Vermont to solve some of our seed supply chain bottlenecks. We are still in very early stages of the pilot and will likely have more information and trainings this winter. In the meantime, visit seedark.io to learn more.



General Summer / Fall Seed Dispersal Calendar





Serviceberry in Victory, VT (6/24/2024)

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CONNECT WITH US

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RESOURCES



[Seed Scouting Survey123 Form](#)



[iNaturalist Phenology Tracking in New England](#)



June 2024 Watershed Forestry Partnership Newsletter



[Northeast Seed Network](#)

The Riparian Lands Native Seed Partnership would not be possible without the support and guidance of all of our partnering organizations!

