



2017

Central Appalachian Spruce Restoration Initiative

Meeting Agendas and Minutes

Wednesday, February 4, 2016 - Monongahela National Forest Office - 9 a.m.

Agenda

Call in: 888-844-9904, passcode 9171244#

9:00 – 9:15a

Welcome and Introductions, Hopefully some good banter

9:15 – 9:45a

2016 Recap

- Accomplishment Reports
- Meeting notes from November & lessons learned

9:45 – 10:45a

2017 Workplan

- Round Robin: Planned activities, new projects, what are you excited about?
- Matching activities to strategic plan
- How do we want to share information (e.g. CASRI calendar)

10:45a – End

Open floor

- Thoughts about the upcoming year and strategic vision

- Plan next meeting date

Minutes

People present:

Ben Rhodes TNC ERT, Breezey Snyder TNC ERT , Owen Peet TNC CWPMA , Darrell Wright MNF Greenbrier RD, Todd Kuntz MNF Greenbrier RD, Anna Branduzzi MNF Greenbrier RD, Dave Saville WVHC, Mallory Gyovai Canaan Valley NWR , Lauren Merrill Canaan Valley NWR, Liza Morse TNC ERT, Amy Coleman MNF SO, Jason Aerni MNF SO, Tyler Winstead AFHA Elkins, Joe Lancaster AFHA Elkins, Tom Fletcher USFWS Elkins, Julie Fosbender MNF SO

People present via conference call:

Deborah Landau, Dawn Washington, Justin Hynicka, Mike Powell

2016 Recap

Jason handed out the one-page summary of 2016 CASRI accomplishments.

- Very similar to 2015, except
 - A few thousand less trees planted in 2016 than in 2015
 - More spruce was released in 2016
 - Interactions with private landowners increased and more agricultural lands were improved in 2016
- Lessons learned in 2016
 - ERT did less NNIS treatments and more spruce release and spruce planting
 - Knocking down trees in the Mower Tract is helping spruce to grow
- All agreed that Jason did a great job on the Annual Report.

2017 Workplans

Jason (MNF)

- AmeriCorps project is to create a Spruce Restoration Map using GIS. He is working now to collect various GIS layers from agencies and partners so that we can use this map to plan for future restoration activities, document the work completed, and be better able to share information and publicize our accomplishments. TNC has been working on a similar product and will share their mapping efforts at the next CASRI meeting.

Joe and Tyler (AFHA)

- Joe is developing a new interpretive exhibit for AFHA's Darden Mill museum. He is using "Story Trees", the American chestnut, Red Spruce, and Canaan Balsam Fir, as a component of the new exhibit. The stories will describe the importance of each tree to the local people and their

communities, and to the forest ecosystem. Tyler is using InDesign to create the interpretive panels.

Amy (MNF)

- The MNF is working with the J.W. Toumey Nursery (https://www.fs.usda.gov/detail/ottawa/home/?cid=FSM8_042652) on the Ottawa National Forest in Michigan to grow plants from seed gathered on the MNF. The plan is to gather enough seed this summer to be able to plant 25,000 hardwood trees in 2020 or 2021.

Liza (TNC)

- Liza's AmeriCorps project is to look for trees resistant to beech bark disease by examining existing data and monitoring beech in the field.

Dave (WVHC)

- WVHC 50th Anniversary Celebration and Conference will be at the Canaan Valley Resort State Park on Sept 15-16.
- The CASRI website is out-of-date and needs to be upgraded to newer software. Dave said that the 2016 Annual Report should be posted today, but that he is very concerned about people hacking into the site because of the old software or the website crashing. Dave, Jason, and Lauren volunteered to form a subcommittee to work on options for the website. This would be an excellent AmeriCorp project.

Mallory, Lauren and Dawn (CVNWR)

- Mallory will monitor Brook Trout in Canaan Valley for her AmeriCorp's project.
- Lauren's AmeriCorp's project will examine Cheat Mountain Salamander movement under a new CMS underpass on a refuge hiking trail.
- They will both also be involved with tree planting (5,000 Red Spruce scheduled to be planted on Earth Day), Spruce release (girdling), and mechanical beech brush work in CMS habitat.
- One potential issue with volunteer activities on Earth Day could be that the March for Science is also scheduled that day. <https://www.scientificamerican.com/article/march-for-science-set-for-earth-day/>
- The refuge is working with NRCS in an interagency program to develop ecological site descriptions.

Anna, Todd, and Daryl (MNF – Greenbrier RD)

- Plan to plant 75,000 trees on 86 acres of the Mower Tract this spring. There will be a volunteer planning day on May 5.
- This fall, 100 acres of mine land is planned to be restored.
- The mulcher will continue to be used.

- The group talked about getting more systematic with our seed collection activities by GPSing good seed sources and developing information on how to collect, store and ship seeds. This is challenging because some species do not produce seeds every year and do not always produce seeds at the same time each year. We need to have eyes in the field looking for seeds ready to be collected!
- Lauren said that the refuge has been using Nature's Notebook to gather nature observations from the public. See <https://www.youtube.com/watch?v=YSnmgD0IKkA>
- Send GPS coordinates of good seed sources to Todd and the MNF will begin to create a GIS layer.

Tom (USFWS – Elkins)

- Talked about restoration work and dam removal along the West Fork.

Owen (CWPMA)

- There will be an herbicide application class at Eagle Rock (North of Franklin) on June 3 from 9:30am to 1pm. This class is open to the public.

Breezey (TNC – ERT)

- Breezey is monitoring the effects of spruce release on spruce growth in 10 plots for her AmeriCorps project.

Ben (TNC – ERT)

- Plans to release 600 acres of spruce in the Upper Greenbrier North area.
- Handing off garlic mustard challenge to the CWPMA.
- Working on a protection plan with private landowner (119 acres) on the southwest side of Mount Porte Crayon near Thunderstruck Rock area.

Mike (TNC)

- Talked about the Blackwater Collaborative. TNC and partners have written a stewardship plan for Blackwater Falls State Park and are looking for money to fund the work.
- The stewardship agreement between the MNF and TNC is being developed.

CASRI Calendar

- Jason brought up the need for a CASRI Calendar. Something that we can include on the web page? Here are some volunteer dates to mark on your calendar now:

Date	Place	Organized by	No. of trees to be planted
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April 25*	Kumbrabow State Forest		2,000
April 21	Blackwater Falls State Park	TNC "Connect with Nature"	5,000
April 21 and 22	Cranesville Swamp Preserve	TNC WV & TNC MD	4,000 to 5,000
April 22	Canaan Valley NWR	Canaan Valley NWR	5,000
May 5	Mower Tract	MNF	

*Changed since meeting date

- The ERT will be planting trees
 - On Spruce Knob near The Mountain Institute during the first two weeks of April (4,350 hardwoods), and
 - On the new conservation easement (near Mount Porte Crayon) in the last two weeks of April (4,000 to 5,000 trees)

Spruce Symposium

- SASRI is organizing this conference
- It is tentatively scheduled for the first-half of November in Gatlinburg TN
- Amy said she is on the planning committee. Right now they are getting together sub-committees.
- Jason said he is on the agenda committee.
- Mike emailed Gary yesterday and asked if he needed help.
- Mike and Dawn said that they would be willing to help.

Things to do

- TNC will demonstrate their spruce map at the next CASRI meeting
- Dave and Joe will connect to get trees for the AFHA exhibit
- Amy is sending the tree list and seed need to Julie/Jason to share with the group
- Dave will keep the group updated on planning for the WVHC September event
- Website team (Dave, Jason, Lauren) will discuss the webpage
- Todd will send the priority list of seeds needed and possible locations to Julie/Jason to share with the group
- Mallory and Lauren will send additional info on Nature Notebook to Julie/Jason to share with the group
- Jason will investigate Google Docs as a way for us to share info about volunteer events and seed collecting info
- Todd and Anna will draft guidelines for how to collect, store and ship seeds
- Julie will reserve meeting space for our next meeting (with AV)

CASRI next meeting

Thursday May 25, 2017 from 9am to 12noon at the MNF Supervisor's Office in Elkins

Wednesday, June 27, 2016 - Monongahela National Forest Office - 9 a.m.

Agenda

Call in: 888-844-9904, passcode 9171244#

9:00 – 9:05a

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9:05 – 9:20a

Round robin of 2017 spruce planting

9:20 – 9:50a

Spruce monitoring

- Ben Rhodes will go over some initial data from spruce monitoring
- Discussion

BREAK

OPTIONAL DISCUSSION:

11 DELICIOUS RECIPES YOU CAN MAKE USING ONLY RED SPRUCE CONES, NEEDLES AND BARK

10:00 – 10:30a

Maps

- TNC will present their spruce map
- Jason will quickly show the 2013 DNR/USFS spruce habitat map
- Discussion: Are we consolidating and sharing maps well enough? What else can we do?

10:30 – 10:45a

Seeds

- Recap last meeting's discussion on tracking seed sources
- Discuss goals for seed collection and next steps to improving our efforts

10:45a – End

Miscellaneous items

- CASRI/SASRI conference
- Website
- AFHA exhibit at the Darden Mill
- Open floor

Wednesday, October 16, 2016 - Monongahela National Forest Office - 10 a.m.

Agenda

Call in: 888-844-9904 Passcode 9171244#

10:00am Welcome, Introductions, Update mailing list

10:10am SASRI/CASRI Meeting

11:00am Annual Accomplishments and Reporting

11:15am Break

11:30am Red Spruce Genetics Study

12:15pm Seed Collection Project

12:30pm CASRI Webpage Updates

12:45pm BIN items

1:00pm Adjourn

Minutes

Present:

Julie Fosbender MNF Natural Resource Specialist, Amy Coleman MNF South Zone Ecologist, Ben Rhodes TNC Ecological Restoration Manager, Mike Powell TNC Director of Stewardship, Jim Vanderhorst WVDNR Vegetation Ecologist, Tyler Costlow TNC AmeriCorps PHCWPM, Tyler Ulmer TNC AmeriCorps PHCWPM, Haley Hutchins MNF AmeriCorps Ecopartnerships, Sarah Fleck TNC AmeriCorps ERT, Hannah Lieberman USFWS AmeriCorps, Dave Saville WV Highlands Conservancy, Deborah Landau TNC Maryland Ecologist

CASRI/SASRI Meeting

- 2017 High Elevation Forest Restoration Workshop; November 14-16, 2017. Glenstone Lodge, Gatlinburg, TN 37738.
- Ben Rhodes: will be presenting November 14th at 4:00pm. Would like to coordinate with other restoration efforts folks in an effort to not repeat things. He and Shane will confer and decide.
- Car-pooling in a Forest Service vehicle is possible. The drive will be ~7 hours from Elkins, WV.

CASRI Annual Report

- Haley Hutchins will consolidate written reports from participating groups to make the final report.
- Call for number reporting will go out at the end of field season and the report will be together after the New Year.

Red Spruce Genetics Study

Synopsis from Jim Vanderhorst.

- See study attached, Final report to the West Virginia Department of Natural Resources: A genetic assessment of the population health and connectivity of a keystone species in high elevation Appalachian forest ecosystems: red spruce (*Picea rubens* Sarg.)
- Study done at the University of Maryland by Dr. Stephen Keller and Regina Trott
- Covered multiple sites at which red spruce was restored in West Virginia, Maryland, and Vermont
- There is limited diversity throughout the spruce population, there is greater diversity harbored in the Appalachian region.
 - Different sites have greater diversity because northern stock was planted in WV during earlier restoration efforts.
 - Other sites (outliers) have lower genetic diversity.
 - Generally lower genetic diversity up north.
 - Looking for increased heterozygosity in higher age class, however the results of this study did not find that. Constrained by tree height to get leaves.
 - Population structure was determined by division of the genetic information.
- The effective population size is based on historical data. Is good when lumped for the whole state. For the long term, close to the right amount of genetic diversity to evolve.
- Sampled saplings from Dave Saville and they had the highest genetic diversity.
- The Question: Where we get the seed? Mal-adaptive diversity or adaptive diversity? Is native ancestry or northern ancestry better adapted for restoration down here? Or should we be planting more southern trees?

Input from Dave Saville.

- When spruce planting started in the 30's and 40's, the seed came from a main source with unknown origin. Later, they started collecting seed from WV, so trees that were planted later will most likely have a WV source. A good source for this is the Monongahela Forest National Newsletter.
 - Cross pollination will most likely have occurred between native WV trees and varieties from the north.
- Now they keep the areas separate and plant the saplings in the areas from where they were collected: Canaan, Cheat Mountain, etc.
- Selecting trees to collect from is difficult, high ones cannot be collected from because the cones are too high. They collect cones off of the ground in an area that has a high concentration of trees in the area.

- Take home: We want to use native seeds that don't have the northern influences. Maybe?
Depends on successful growth and genetic diversity.

Future: small group for further discussion, compare genetic plots and seeds, have Steve and Regina join us for the next meeting.

Seed Collection

- A map with a GIS layer of the seed plantings, overlaid with the genetic information collected would be very useful
- As a member of the private sector, Dave is frustrated with how the Forest Service pays him, in that he has to front the capital for 2 years' worth of seedlings at a time.
 - Mike will look into TNC paying up front for saplings and Julie discuss this with Kent.
- Need to ask Todd to write down his seed sources before he leaves.

CASRI Website

Dave Saville:

- The website is currently hosted on a platform that is no longer supported and therefore needs to be moved.
- Will ask Board of Directors at the WV Highlands Conservancy for new web platform money, however this doesn't seem likely to pan out.
- Would like to hire Dan to do it for ~\$1,500-2,000, which is a good estimate.
- The website could be put under the TNC website, however it seems better to leave it as its own entity.

Julie, Kelly Bridges, and Dave can have a phone discussion about the webpage

Extras

Ben: 500 acres of red spruce were planted last year by TNC ERT.

Jim: 3 new species of plants have been found in WV, *Utricularia*, *Lycopodium*, and one other.

Amy: The south zone if the Mon. is getting involved in spruce restoration and things are happening around Marlinton. Still in the early stages of restoration.

Mike: Interpretive signs are inaccurate in places, maybe we could get a few small grants to fund interpretive signs or brochures. Inquire with: The Dunn Foundation Oakland Foundation, and Tucker Community Foundation.

Meeting Dates for 2018

Second Tuesday of each quarter.

January 9th, 2018

April 10th, 2018

July 10th, 2018

October 9th, 2018

Location: Monongahela National Forest Supervisor's Office