

Special Meeting of the Hogback Management Plan Update Committee
1:00 pm, March 10, 2024
outdoors at the Hogback Mountain Conservation Area

Minutes

The meeting was called to order at 1:07 pm.

Present: Mike Purcell, Eric Slayton, Diana Todd, Pieter Van Loon, Amanda Whiting

We walked about a mile on trails on the north side of Route 9, stopping frequently to evaluate conditions and discuss forest management concepts. We started by heading north on the east branch of White's Loop, turned west on the MES Trail, and returned south on the west branch of White's Loop.

Topics discussed:

Active Forest Management in the Conservation Area

All agreed that the conservation area forest is an important public resource, beloved by the town and beyond. Pieter Van Loon, forester for the Vermont Land Trust as well as HMPUC member, stressed that no actions should be taken unless there is good evidence that they will be effective. Any active management projects should be carefully planned and reviewed prior to beginning work, and scrupulously monitored during implementation.

Pieter noted that there are some areas of the conservation area forest that are healthy and that provide important habitat and other benefits. There is no need for any active management of these areas. They should be left untouched. In other areas, past timber harvests have left the forest in a degraded condition, with a lack of diversity that limits the forest's ability to face stresses such as climate change. Since human action (in the form of past "high-grade" harvests) significantly contributed to the current condition, Pieter feels we have a responsibility to try to help the forest recover to a more resilient condition.

("High-grading" refers to timber harvests that take all the best trees – the biggest, healthiest trees that bring in the most money at the mill. This leaves behind trees that are growing poorly, usually because they are not ideally suited to the location, due to soil type, moisture levels, slope exposure, or other conditions. The result is a forest where the ideal species for given conditions are not present, and those species that are present are struggling.)

Current conditions, prospects for the future, and potential management activities

The forest in the section of the conservation area that we toured is an example of Northern Hardwood forest. All the expected tree species are present in the canopy (the mature trees), including sugar maple, red maple, ash, beech, yellow birch and black cherry. However, the understory (younger trees including seedlings and saplings), which represents the future of the forest, consists of only beech and spruce. There are literally thousands, probably tens of thousands, of young beech in this section of the conservation area. We saw an occasional striped maple seedling and one or two hobble bush (a shrub). On the entire walk, we saw only one spot with a handful of yellow birch seedlings, and no maple, ash, cherry, or oak seedlings.

Beech propagate not only through seeds, but also by root sprouts. This creates dense networks of beech that are connected to each other through their root systems. When beech are stressed, as they currently are throughout the county due to beech bark disease, they react by putting out more root sprouts as well as more seeds. Beech is not a preferred food for deer. Deer won't eat beech until there's nothing else available.

Other hardwoods such as maple, cherry and birch do not grow from root sprouts, but must regenerate from seed. For the seedlings to survive, they need sun, and they need to not be eaten by deer. In this section of the conservation area, the mixed hardwood canopy and the beech understory are both dense, shading the seedlings. Lack of sun combined with deer browse have virtually eliminated regeneration of any species other than beech. Cutting an opening (removing all the trees) in patches of about a quarter acre in size will provide sunlight that could give non-beech seedlings a chance to get started. Pieter pointed out an example where two existing large yellow birch could form the edge of an opening, so that their seeds would fall into the open, sunny spot.

Several ideas for controlling deer browse were discussed, mainly various types and extents of fencing.

The concept of girdling trees to kill them in place, rather than cutting and removing them, was discussed.

The benefits of beech as a mast source for bears and other wildlife was discussed. There are some known "bear trees" on the ridge in this section of forest, identifiable from claw marks in the bark. Pieter said that bears have good memories and return year after year to productive mast trees. Such trees should be identified and protected. Healthy beech that are resisting beech bark disease should also be preserved. The threat of beech leaf disease, a relatively new problem that is expected to arrive in Vermont soon, was discussed.

The coming invasion by emerald ash borer was discussed. Mortality due to infestation by this alien insect can be quite high, although experience in the upper midwest showed surprising small pockets that escaped virtually unscathed. Ash trees in distress produce a pheromone that acts as a homing beacon for emerald ash borer. Thus infected trees attract even more insects and the neighboring trees get infected as well. Observations of the infestation moving east over the past decades has shown that it advances with an intense killing wave. Once the affected ash die, the borer population declines. Current management theories are exploring ways to improve the number of ash that survive the initial killing wave. The distress pheromone is produced in reaction to things other than just the borers, for example, ice storm damage. The ridge we circumnavigated on our walk is subjected to repeated ice storm damage and almost all the mature trees exhibit odd branching patterns in their crowns due to past damage. One possibility for preparing for the emerald ash borer would be to cut the most ice-stressed ash trees, to try to reduce the amount of "come hither" pheromone in the air.

We reviewed the benefits of coarse woody debris – defined as deadwood on the ground that is more than a foot in diameter. We noted that any big ash that do succumb to the borer will eventually produce coarse woody debris. There is currently almost no debris of that size in this section of the forest.

On the west leg of White's Loop, we looked at a spot that had a significant number of small spruce, less than four feet tall. By counting whorls, it was clear that these small trees were actually 30 or more years

old. They are not growing well because they don't receive sufficient sunlight. Dense patches of spruce are a valuable habitat type. By removing the overstory in patches where these old, but very small spruce exist, they would be "released" from competition for sunlight. Studies have shown that these stunted trees react dramatically to release, growing quite rapidly from their mature root systems.

Where we crossed the Old Hogback Road on our return to the parking lot, we stopped and noted that there were healthy maple and cherry saplings growing along the north side of the road. Why were there young hardwoods growing there, but not in the forest where we had just been walking? Because of sunlight. The narrow opening created by the old road was wide enough to provide sun on the north side of the road, enough sun to let hardwood seedlings survive and grow into healthy saplings.

The meeting was adjourned at 3:17 pm.