

Tree Species of M-119 Tunnel of Trees

On July 18, 2007, I conducted an inventory of the tree species in the road right of way along M-119 north of Harbor Springs, Michigan. The information that was noted was the forest type, tree species, average diameter, and overall health. Northern hardwoods (sugar maple, American beech, white ash, eastern hemlock, and American basswood) with red oak is the dominant forest type along the entire length of M-119 north of Harbor Springs. There are smaller pockets of aspen, birch, pine, and lowland conifers and hardwoods. I have split the summary by township starting from Harbor Springs and traveling north.

West Traverse Township: Species present are sugar maple, red oak, white pine, white birch, white cedar, eastern hemlock, white ash, aspen, red pine, willow, black cherry, American beech and black walnut. Average DBH (diameter at breast height): 10"

There are many larger trees (16"+ dbh) along this area especially near the country club and Birchwood Farms. The majority are sugar maple and oak. On the lake side there are many smaller trees of a variety of species. The large maples and oaks are showing signs of decline. This is due to environmental stresses and the age of the trees. As you travel north there are small patches of forest that contain lowland hardwoods and conifers. The area near 5 mile creek road is like this.

Friendship Township: Species present are sugar maple, red oak, black cherry, white ash, white birch, eastern hemlock, white cedar, aspen, American beech, ironwood, red pine, various spruces, and Scotch pine. Average DBH: 10-12"

This is where the forest starts to close in and grow over M-119. Again the major forest type is northern hardwoods. The larger overstory trees are sugar maple and red oak. The understory is smaller white ash, hemlock, cedar and beech. There are also some clumps of aspen and birch in areas that were once open. There are also some areas of planted red pine. Overall the trees are growing very well. A few larger trees are showing some dieback and decline. Near the northern boundary of the township the large trees close to the road have damage from vehicle traffic. There are also some dead branches that may pose a hazard and may need to be removed.

Readmond Township: Species present are sugar maple, red oak, white birch, spruce, white ash, American beech, Scotch pine, American elm, balsam fir, eastern hemlock, and white pine. Average DBH: 12"

The forest here is northern hardwoods with sugar maple and red oak being the dominant trees. Due to the lack of sunlight getting to the forest floor there is not a lot of trees in the understory. Where there is sunlight, the regeneration is mainly ash. There are a few areas that are predominately American beech. This may be an area of concern since beech scale which is associated with beech bark disease is in the area. In the future the beech resource in the area may be depleted. At the northern edge of the township the soils appear to be wetter because there is balsam fir, and American elm growing here with the northern hardwoods. Some of the oak branches growing over the road here are starting to die. There is also a large beech in this area near the road that is almost dead.

Cross Village Township: Species present are sugar maple, white ash, American basswood, American beech, aspen, white cedar, eastern hemlock. Average DBH: 10-12"

The area has a northern hardwood forest type with American beech as the dominant tree growing here. As stated before, beech bark disease will become a factor in the future and should be taken into consideration. The trees here appear to have more decline and die off than in many of the other areas of M-119.

Summary: Overall the health of the forest resource along M-119 is in good condition. Most of the trees growing here are native to the area and are well suited to the soils they grow on. The only non native trees observed were Scotch pine.

As the forest ages, there will be more signs of decline. This is due to both natural (insect and disease, weather, age) and manmade factors (compaction, heat from the road, damage from vehicles). I don't think at this point there should be any cause for concern as this is a natural occurrence. As holes open up in the canopy, sunlight will filter down and allow for new trees to grow and take the declining trees' place.

One issue to be concerned about is hazardous trees along the road. There are a few with dead branches over the road and some dead and dying trees that have the potential to fall in the road.

Finally, a healthy forest has a diverse mix of tree species and sizes. Most of the forest along M-119 has both of these. There are however a few areas that are predominately American beech. As stated before, beech bark disease will be coming to the area and could open these areas up by killing the majority of the beech trees. This could cause both visual impacts and increase hazard trees along the road.

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July 29, 2010

RE: Tree health along M-119 Tunnel of Trees

On August 28, 2010 an inspection was made of the general health of the trees and forest within the right-of-way of M-119 between Harbor Springs and Cross Village. Individual trees and stands as well as the overall forests along the route were observed and visually inspected for overall age, general condition and possible problems, either currently or potentially in the next few years. Presence of invasive exotic vegetation was also observed and noted.

FINDINGS: The age of the forests along the Tunnel of Trees route would be generalized as middle-aged, 60-90 years old, and therefore of good vigor. The exceptions, however are the aspen and birch trees, which mature quicker and live shorter lives than many of the other species present. Their life spans are around 80-100 years. Examples of mature to over-mature aspen are seen just south of Middle Road in West Traverse Township and south of Middle Village Road in Readmond Township, though examples of mature specimens of both species can be observed throughout the length of the route and are trees of concern.

As trees mature they will naturally have lower limbs die back and should be removed on a bi-annual basis. The older the trees the larger those branches will be and the more costly their removal. Also, it should be expected that the occasional tree will die and present a hazard; this will increase in frequency as the overall forest matures (there is currently no cause for concern). Therefore, budgets should be calculated accordingly.

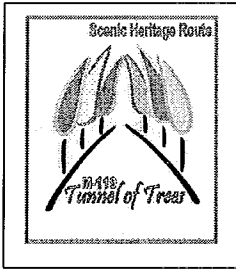
One major cause for concern, however, is the widespread presence of beech bark disease. This was observed in most stands of hardwood along the route and will lead to widespread mortality of the species. (<http://forestry.msu.edu/testmsaf/main%20page/BBdisease.htm>) The disease has a couple of stages and can be most readily observed by the white, waxy scale in heavily infested trees. Blue flagging was tied to notable examples northwest of Terpening Road and at 6228 M-119 (near Cross Village), where there is a particularly hazardous heavily infested tree leaning over the road and a power line. As infestation and death advance, the beech trees become susceptible to a condition termed beech snap. Beech snap occurs when wind breaks of trees where wood borers and decay fungi weaken the wood beneath fungus (beech bark disease) -killed bark. The disease in forest stands cannot be controlled at a reasonable cost, and a program of timely salvage cuttings is the only way presently known to reduce its impact.

Removal of infested trees within the right-of-way is recommended at the earliest opportunity. It would be best to work with adjacent landowners to get them to remove the diseased trees on their lands (though there are obvious inherent difficulties in doing this). Preemptive removal of healthy appearing trees is not recommended, as some trees seem naturally tolerant, or at least not as

susceptible as others and may very well survive. A second round of tree removal should be expected in a year or two as the disease takes its course.

Another forest/tree health issue to monitor is emerald ash borer (EAB) infestation. Ash trees with crown die-back were observed along the route, but the exact cause was not determined, though it may be assumed to be EAB. These trees should be included in the general dying tree removal regime and, as there is not the concentration of the species, no special budgetary consideration need be made.

A couple of invasive exotic plant species were observed in the right-of-way which are of special note. Autumn olive, a highly invasive shrub, was observed south of Terpening Road on the east side of M-119. Also, Scotch pine trees are well established in the right-of-way in the vicinity of 3487 M-119. These species are aggressive in becoming established in open sites and crowd out native vegetation, thereby disrupting the natural state of the environment. Though there is no other hazard or safety concern, it is considered good stewardship to control the establishment and spread of these species by their physical removal, including the roots of the autumn olive. Again, this program would be most effective if adjacent landowners were involved.



Tree Species of the M-119 Tunnel of Trees

The M-119 Tunnel of Trees Scenic Heritage Route Committee requested an inventory of the tree species in the road right of way along M-119 north of Harbor Springs, Michigan. The inventory took place in July 2007 by Chris Anderson, Forester/Groundwater Technician from the Charlevoix Conservation District. The information that was noted was the forest type, tree species, average diameter, and overall health. Northern hardwoods (sugar maple, American beech, white ash, eastern hemlock, and American basswood) with red oak is the dominant forest type along the entire length of M-119 north of Harbor Springs. There are smaller pockets of aspen, birch, pine, and lowland conifers and hardwoods. I have split the summary by township starting from Harbor Springs and traveling north.

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