



## Supporting Sustainable Management of Private Woodlands

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## Strategies to Improve Your Woodland

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Many landowners, especially those new to the process of managing their woodlands, want to know if and how to make improvements. This is a common question that illustrates an interest and commitment by the owner to be more fully invested in their property. It is worth noting that I don't think I know a woodland owner who believes their woods have achieved full improvement. This is a never ending, but endlessly enjoyable quest. The question is broad because "improvement" will mean different things to different people. However, there are several practices you can use to cover a broad range of interests.

The first and absolutely essential step as an owner, and to improve your land, is to identify your ownership objectives. Some people might call them goals. Whatever the label, the important questions to ask yourself and your co-owners include: "Why do you own the land?", "Why do you keep paying taxes on the land?", "What does the land give you (tangible or intangible) now or in the future, that you want and need?". Your ownership objectives usually won't change much in the short-term, but might change some over many years or decades. It is important that your spouse, mature children, and others who have a stake in the property go through the same process (Figure 1). By knowing your objectives, you will be able to assess the importance or suitability for any action that might occur on your property. Your objectives will help gauge your reaction to a boundary line that isn't surveyed, an eroding trail, or the request by a neighbor to harvest firewood.

No one starts the journey of woodland ownership knowing all they need to know. It is helpful to have someone that has been in your shoes talk about your options. Cornell University Cooperative Extension offers the Master Forest Owner volunteer program. The MFO volunteers are woodland owners who have been trained to use their varied talents, knowledge and experience (Figure 2) to help other woodland owners learn about their property. The volunteers don't provide



Figure 1. A snowy winter road illustrates any number of ownership objectives that might include hiking, hunting, collecting of maple sap, or firewood collecting. Most ownership objectives are compatible, but they need to be written down.

technical assistance, but can share educational resources and networks about groups like the New York Forest Owners Association. Most people look for advice from those who have shared the same questions and trials, so the MFO volunteers provide themselves as a peer who will make a free visit and get you started on improving your property for your objectives. Request a free visit from an MFO volunteer here www.CornellMFO.info

You may know, or the MFO volunteer may tell you, that your interests will benefit from the technical assistance of a forester. There are many types of foresters. A good starting point is with the NYSDEC foresters who will



Figure 2. Master Forest Owner volunteers are trained in key principles of tree identification and tree measurement. They offer non-technical advice that can help other woodland owners get started with improving their woodlands.

visit your property and provide free technical assistance. These public service forester arrive "pre-paid" by your tax dollars, but more importantly don't carry any bias of what they recommend. They can provide a plan, and guide you to the outcome you desire. In my experience the DEC foresters are all capable, sincere, and a treasure to have walk in the woods with you. You can find your DEC public service forester here http://www.dec.ny.gov/lands/97398.html.

Once you reach the point that you want to improve your woodlands, you are also likely eager to learn about your woodlands, the habitats, and the features you see. There is an enormous amount of information and resources to help with this. As part of its Land Grant mission, Cornell University offers assistance through offices of Cornell Cooperative Extension in each county, and through the statewide program ForestConnect. ForestConnect helps connect people to their woods through applied research and the development of educational materials. This information is systematic and strategic to address concerns of woodland owners through a variety of delivery systems that help woodland owners find the answers they need. ForestConnect is found at www.ForestConnect.info and includes hundreds of pages of free publications, and links to scores of webinars at www.youtube.com/ForestConnect. You can also network with other woodland own-

ers at http://CornellForestConnect.ning.com.

Another important educational resource for woodland owners is the NY Forest Owners Association (www.NYFOA.org). NYFOA is an association of woodland owners for woodland owners. In addition to the bi-monthly magazine, a powerful resource is to connect with your local chapter. Chapters host regular events and newsletters that provide opportunities for woodland owners to further learn from each other (Figure 3). Joining NYFOA is an important step in improving your woods.

The size of your property will influence the types of action you can take, and should take,



Figure 3. One of NYFOA's ten chapters is visiting a private woodland and learning about strategies to manage invasive plants from one of Cornell's Regional Extension Foresters, and sharing their own experiences.

to improve your woods. Smaller properties are more easily managed, but lack some of the options available on larger parcels. There is no threshold for small and large (see www.nyfoa.org issue 2017 January/February), but rather it depends on the desired activity. The important truth is that every property can be improved.

Many owner interests that relate to improvement depend upon the types and sizes of trees. The first step is to be able to identify the trees and plants on your property. Many of the MFO volunteers know the common trees and plants. You can also watch the tree identification webinars for hardwoods and conifers on www.youtube.com/ ForestConnect. You can also use a good book such as Cornell's "Know Your Trees" or "Trees of New York: Native and Naturalized" by Professor Donald J. Leopold.

The trees and plants that grow on your land depend in part on the soils. We can't really change the soils in the woods, but we can make sure that we favor those species that are adapted to the soil we have. Two resources to help you learn about your soils are Google Earth Pro and Web Soil Survey. These are free, online tools that will open your eyes to a new way to look at your property. I have a blog about how to use these, plus tutorials http://cornell-forestconnect.ning.com/profiles/blogs/google-earth-and-web-soil-survey



Figure 4. The impacts of deer on NY woodlands can have profound and long-lasting effects. You usually don't see the full number of deer on your property. The first step is to assess deer impacts with a vegetation assessment protocol such as http://AVIDdeer.com

Finally, any discussion about improving your woods should include a discussion about those factors that have a primary role in degrading our woods. The primary factors include deer browsing, interfering plants and exploitive harvesting. At the 50th Anniversary of NYFOA, they recognized these three factors and started an initiative called "Restore New York Woodlands" to call attention to the problem and work with partners to create solutions.

Deer are perhaps the single biggest detriment to the sustained vitality of our New York woodlands. In most areas of the state, the number of deer exceed the carrying capacity of the land. It isn't so important to know the number of deer per square mile, but rather the impact of deer on the vegetation (Figure 4). Deer preferentially browse desirable trees and herbs, but don't browse most undesirable plants. The other two degrading factors are aggravated and compounded by deer browsing. You can learn more about deer, and a simple method to assess the impacts of deer at a Cornell website http://AVIDdeer.com

Interfering plants are those plants that interfere with one of your ownership objectives. Interfering plants are either native or introduced. These plants might reduce biodiversity, tree regeneration, recreational access, habitat for wildlife, or aesthetic quality. Importantly, many interfering plant problems originated because of an overabundance of deer. If the deer problem exists, and hasn't truly been resolved (a difficult task), efforts to manage interfering plants will likely fail. Information about problem plants can be found in the ForestConnect webinars, on the ForestConnect website, and in several previous issues of the NY Forest Owner magazine on the NYFOA web page.

The third, but equally important, factor that degrades our woodlands is exploitive harvesting. Unfortunately, this may be the most common of harvesting practices that occurs in NY. It goes by many names such as selective cutting, diameter-limit cutting, and high-grading. The arguments in support of this practice might include: "the little trees are younger and we'll give them more light" (Figure 5), "there are diseases and insects and we should cut the big ones", or "diameter growth has slowed on the bigger trees". Incidentally, the last statement is true, but invalid because the larger trees may have less diameter growth, but still have greater volume growth. Many woodland owners inherit or purchase an exploited woodlot. The process for remediation is involved, and will require dedica-



Figure 5. Seldom do the big trees represent old trees and the smaller trees represent young trees. This picture is of a tree cookie of a 4.5 inch diameter northern red oak that is approximately 80 years old. It was beneath a 32 inch diameter northern red oak of the same age. The smaller tree is, for whatever reason, not suited to growing on that site. Giving it more sunlight won't really help. Photo credit: Lew Ward, NYFOA Southern Tier Chapter.

tion and commitment by the owner. These degraded woodlands desperately need improvement. Learn more at the ForestConnect webpage and youtube channel.

The time you spend on woodland improvement won't end, but that's part of the joy we experience as woodland owners. Always works a fely in the woods, don't take chances, breathethefreshair, and try to learn something new each time you're among your trees.



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