

# Knowing Your Woods

## Introduction

Your woodland, however small, is valuable to you and your family for a variety of reasons. Spending time in the woods can improve your physical and mental health and your outlook on life. The woods can also produce commercially valuable forest products and opportunities for outdoor recreation.

Actively managing your woods promotes healthy trees and helps to ensure a sustainable flow of benefits over time. Although you benefit the most from the careful management of your woods, your good stewardship also contributes to a healthy environment and economy.

Depending on your interests and the size of your property, you can earn income, teach conservation practices to your children, or create a community hiking trail. Not only can you have fun doing these activities, but you don't have to go anywhere. The woods are right out your back door!

## Your Woods are Always Working

The woods may seem quiet and restful, except for singing birds and rustling leaves, but healthy woods are working behind the scenes to:

- 🍁 Provide homes for wildlife.
- 🍁 Purify the air.
- 🍁 Clean the water.
- 🍁 Lower winter heating costs.
- 🍁 Cool homes in the summer.
- 🍁 Reduce traffic noise.
- 🍁 Provide a sense of privacy.
- 🍁 Grow commercial forest products.
- 🍁 Increase property values.



Stream near Baxter State Park. Photo: Dan Jacobs

## You Decide How Much Time, Effort, and Money

Many reasons exist for investing time, effort, and money in your woods, but how much of each you spend is up to you. You may only want to walk around and get to know your property a little better. On the other hand, you may want to get actively involved and make some woodland improvements. Some project possibilities include:

- ❁ Planting trees and shrubs that attract wildlife.
- ❁ Creating cross-country skiing and hiking trails.
- ❁ Putting up nesting boxes for birds. See <https://www.birds.cornell.edu/k12/educators-guide-to-nest-boxes/> for information about nesting boxes.
- ❁ Cutting firewood while improving habitat for wildlife.
- ❁ Turning trees into lumber for your own use.
- ❁ Creating a scenic picnic spot.



Nesting box. Photo: Rondi Doiron

## About This Resource Guide

This resource guide will help you to understand the woods in your backyard and provide ideas about how to work with your property—whether you own a 1-acre lot or 20 acres on the edge of town.

A directory of state agencies and natural resource-based organizations can be found starting on page 3. These agencies are good initial contacts and a great source of additional information on a variety of topics.

“Backyard Family Activities” are included at the end of each chapter to help you learn more about your property as a family. The activities are most suitable for older children and teens, and they all require adult supervision. Teachers and youth group leaders can adapt them for use with older students. When completed, the Backyard Family Activities also provide a planning framework for working in your woods.

Important forestry terms are shown in **boldface type**, and they are defined in the Glossary on page 123.

## Primary Resources

The following agencies and organizations often collaborate to provide a wide range of information, services, and training for small-acreage landowners. They are good initial contacts for information and can also direct you to local forestry professionals.

### Maine Forest Service

The Maine Forest Service (MFS) provides information and assistance to landowners on science-based forestry practices, logging, insects and diseases of forest trees, and forest fire prevention and control. See the back cover of this publication for the name and number of your local MFS District Forester.

- 🍁 Forest Information Center: 207-287-2791; [forestinfo@maine.gov](mailto:forestinfo@maine.gov)
- 🍁 General Wildfire Information: 800-750-9777
  - For campfire permits, contact the local fire department or MFS:
    - Southern Region: 207-624-3700
    - Central Region: 207-827-1800
    - Northern Region: 207-435-7963
  - To report a fire emergency: 911
- 🍁 Forest Health and Monitoring Division (insects and disease information): 207-287-2431; [https://www.maine.gov/dacf/mfs/forest\\_health/index.htm](https://www.maine.gov/dacf/mfs/forest_health/index.htm)
- 🍁 Website: <https://www.maine.gov/dacf/mfs/index.shtml>

### MFS District Forester Program

The MFS District Forester Program is a great resource for landowners just getting to know and understand the woods they own. District Foresters are located throughout the state and can provide landowners with free advice and information on tree identification, tree health, forestry planning, wood markets, and upcoming workshops and events. In many cases, District Foresters are available to walk through your woods and discuss your goals in person. A map that provides the locations and contact information for each District Forester is provided on the back cover of this publication.

## Maine Board of Pesticides Control

The Maine Board of Pesticides Control provides landowners with information on the safe use of pesticides and can provide contact information for licensed applicators.

- 🍁 General Information: 207-287-2731
- 🍁 Email: [pesticides@maine.gov](mailto:pesticides@maine.gov)
- 🍁 Website: <https://www.maine.gov/dacf/php/pesticides/index.shtml>

## Maine Christmas Tree Association

The Maine Christmas Tree Association is a great source of information on the production and marketing of Christmas trees.

- 🍁 General Information: 207-793-4658
- 🍁 Email: [info@mainechristmastree.com](mailto:info@mainechristmastree.com)
- 🍁 Website: <http://www.mainechristmastree.com/>

## Maine Department of Inland Fisheries & Wildlife

Maine Inland Fisheries & Wildlife biologists provide assistance in creating and maintaining habitat for Maine's native fish and wildlife species.

- 🍁 General Information: 207-287-8000
- 🍁 Website: <https://www.maine.gov/ifw/>

## Maine Maple Producers Association

The Maine Maple Producers Association is a great source of information on upcoming events, maple recipes, maple products, and Maine Maple Sunday.

- 🍁 Website: <https://mainemapleproducers.com/>

## Maine Natural Areas Program

The Maine Natural Areas Program (MNAP) provides information on invasive plant identification, ecology, mapping, and management. MNAP also maintains the *Advisory List of Invasive Plants* for Maine and publishes the *Maine Invasive Plants Field Guide* as a resource for landowners, foresters, and loggers.

- 🍁 General Information: 207-287-8044
- 🍁 Website: <https://www.maine.gov/dacf/mnap/>

## Maine Tree Farm Program

“The mission of the Maine Tree Farm Program is to help Maine’s family woodland owners realize the full potential of their woods while providing forest products and other woodland benefits in a recognizably sustainable manner.”

🍁 Tree Farm Coordinator: 207-613-6837

🍁 Website: <http://mainetreefarm.org/>

## Maine Woodland Owners

Maine Woodland Owners (MWO) is a nonprofit membership organization that encourages sound forest management practices on small properties. MWO offers informative workshops on a variety of topics, including chainsaw safety, tree identification, woodland management for wildlife, and more. There are nine local chapters around the state and membership is not required to attend workshops.

🍁 General Information: 207-626-0005

🍁 Website: <https://www.mainewoodlandowners.org/>

## Soil and Water Conservation Districts

Maine’s Soil and Water Conservation Districts (SWCDs) hold workshops, set up demonstrations, offer educational programs, and help landowners get one-on-one technical assistance.

🍁 Website: [https://www.maine.gov/dacf/about/commissioners/soil\\_water/index.shtml](https://www.maine.gov/dacf/about/commissioners/soil_water/index.shtml)

## University of Maine Cooperative Extension

The University of Maine Cooperative Extension provides practical information on topics ranging from gardening and nutrition to the production and marketing of maple syrup. Call for a catalog of publications or the contact information for your local Cooperative Extension agent.

🍁 General Information: 800-287-0274 (Instate) or 207-581-3188

🍁 Soil testing kits: <https://umaine.edu/soiltestinglab/home/kit-request/>

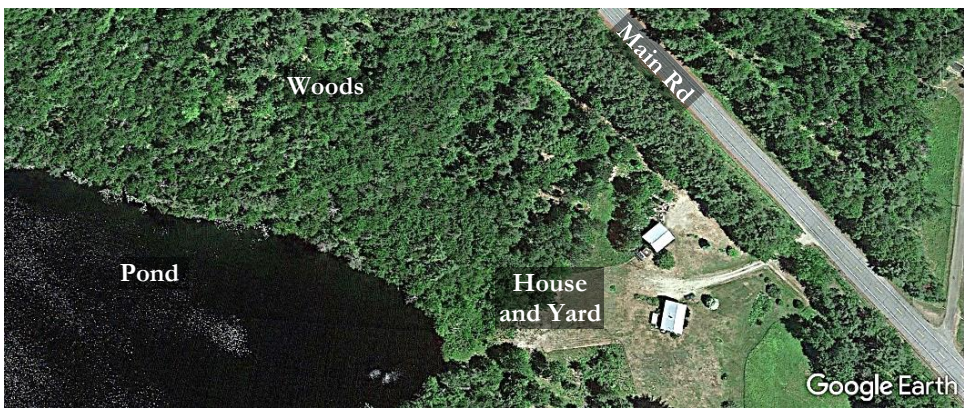
🍁 Website: [extension.umaine.edu/](http://extension.umaine.edu/)

# Gathering Woodland Information

You're probably excited to start working on your land, but you should first gather some basic information about your property and your woods. This initial step involves both ground-level observation and online research.

A basic assessment of your property's natural resources will give you an idea of what projects and activities you can realistically pursue. As much as you might like the idea of boiling down sap to make maple syrup, if you don't have maple trees, doing so won't be possible. So, how do you begin your assessment, and what should you include? A good first step is to obtain or draw a map of your property that includes the location of your boundary lines and the important physical features. A boundary survey map will be the most accurate, but these are not always available. Another option is to visit your town office and get a copy of the tax map that includes your lot. Keep in mind, tax maps are generally not very accurate but will give you a rough idea about your lot's location and its boundaries. With a little creativity, you can also sketch a rough map from the distances and bearings in your deed. This approach will require some knowledge of orienteering and basic geometry.

Once you have a map of your property, you can work on getting aerial photographs and satellite images of your woods. These are helpful in locating different plant species, physical structures, and waterbodies. Google Earth is a great source for these images and can be downloaded at <https://www.google.com/earth/>. This free program provides current aerial images for the entire state. Once you have opened the program, type either the GPS coordinates of your property or your street address into the search bar in the upper left corner of the screen. Google Earth will then zero in and provide an overhead view of the area that includes your woods.



Source: Google Earth

Zoom in and move the aerial image around. Make mental notes of what you see. Is your house in the middle of your lot or near the edge? Can you see roads, trails, wetlands, or streams? You should quickly realize that there is a lot to learn from aerial and satellite imagery.

Once you have the recommended maps and imagery, you may decide to go one step further and locate soils information for your property. The US Department of Agriculture (USDA) provides maps and information for the various soils that occur in Maine. Using the tools on the USDA's Web Soil Survey website, you will be able to identify the soils on your property (see <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>). This information can be very helpful, because soil types and soil properties greatly determine which plant and tree species will grow in an area. If you are interested in forest soils, there is an in-depth discussion of this subject starting on page 68.

## What You May Find on Your Property

Once you have gathered some basic information about your property using maps and online resources, it is time to step outside and explore your woods. Taking mental and written notes about your property's natural resources and key features is important. If you are unfamiliar with your property or you are concerned about getting lost, read "Navigating Through Your Woods" (page 52) before starting your scouting adventure. As an alternative to walking through your woods to gather information, you may be able to start the process by staying within sight of your house and making observations about your property's features.

Once you are in your woods, take careful note of the types of trees that grow on your land. Two distinct types of forests exist in Maine. The state straddles the warmer growing conditions of southern New England and the colder conditions to the north in Canada. As a result, **hardwoods** are common in southern and central portions of the state where the climate is milder. Hardwoods are **deciduous** trees with broad leaves that have their seeds enclosed in fruit. In contrast, **softwoods** are common in the northern and eastern parts of the state because they are well suited to the shorter growing season. Softwoods are cone-bearing trees (**conifers**) with needles that are retained through the winter. Keep in mind that factors other than climate, such as soil type and **aspect**, also help determine which species will grow well in specific locations.



**B Stream in Houlton. Photo: Dan Jacobs**

Another important feature to look for is surface water. Waterbodies, such as ponds and streams, add value to your property in terms of wildlife **habitat** and aesthetics. They are important to both aquatic and terrestrial life and need to be protected from damage when you are working in your woods.

At the edge of your property, you might find **blazed trees**, trees with colored plastic ribbon, ancient rock walls, or old wire fence. This evidence may indicate the location of your boundary line. Boundary lines are very important when you are working on your land. Therefore, you should take the time to carefully describe and record the evidence you find.

Of the boundary evidence listed earlier, rock walls are also a wonderful link to the past use of the land. They often mark the boundary between two fields cleared by hard-working farmers long ago.

When people stopped farming these fields, they gradually returned to a forested condition. You might want to note these interesting historical features as you travel through your woods.



**Rock wall. Photo: Rondi Doiron**







Other historical features you may find on your property include old foundations and dug wells. Be careful of old wells and make sure they are clearly marked and sealed to prevent accidents. Look carefully around these historical features, and you may find ancient fruit trees and other interesting remnants of old homesteads.

Assessing the natural and man-made features of your property will give you a good idea of its past use and future potential. Once you've mapped everything you've found, you'll have a much greater understanding of your woods and be better informed to make decisions regarding your property. "Backyard Family Activity #1: Scouting Your Land" at the end of this chapter (page 24) will help you systematically walk through your woodland and document its features.

## Forestry Basics

This publication will cover many basic principles of forestry and will likely contain answers to some of the questions you have about your woods and your property. For instance, have you ever wondered:

-  What you should know before planting a tree in your front yard?
-  Whether unsightly fallen trees and dead branches have any value?
-  How to make maple syrup?
-  How the forest changes over time?

Keep reading and you will find the answers to these questions.

## Introduction

Let's start our discussion on "forestry basics" by describing how forests originate, grow, and change over time. Then we'll explore some important and interesting woodland features.

Forests can originate in a wide variety of ways. In general, trees either grow in an area naturally or they are planted. Most trees in Maine reproduce when their seed germinates and seedlings begin to grow. However, many hardwood species can also reproduce by sprouting from their roots or from a freshly cut stump. For example, quaking aspen readily sprouts from its root system when it's cut down (or harvested). Trees that originate from sprouts usually grow very fast but are often crooked and malformed. In certain situations, planting trees makes sense. This is usually the best option to make certain your land is growing the exact species you desire. Because

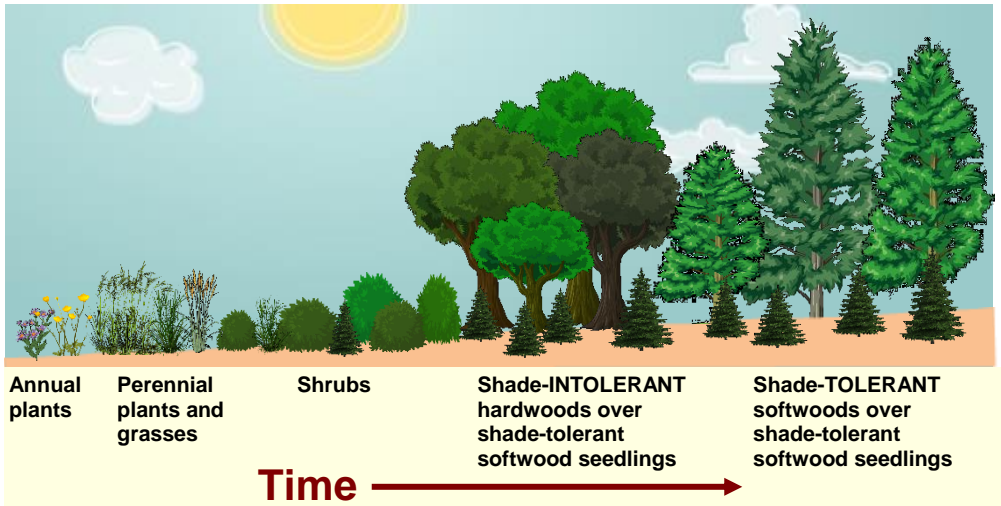
planting costs money and takes significant effort, we are lucky that planting is not typically necessary in Maine.

**Succession** is the replacement of one plant community with another over time. Generally speaking, plants that require lots of sunlight are eventually replaced by plants that can handle varying degrees of shade. Foresters use the terms **shade-intolerant** and **shade-tolerant** to describe these two types of plants. In addition, the first plants to occupy a **site** (such as an abandoned potato field) are called **pioneer species**. Pioneers are intolerant of shade and can quickly take over bare ground because they produce lots of seed and they grow rapidly. However, pioneer species are also short-lived. That means that shade-tolerant plants living beneath the pioneers will eventually have room to grow into the **overstory**.

There are many tree species native to Maine. They range from very intolerant to extremely tolerant of shade. The following is a list of species arranged in order of shade tolerance:

- 🍁 **Very shade-intolerant:** quaking aspen, paper birch, pin cherry
- 🍁 **Intermediate shade tolerance:** yellow birch, eastern white pine
- 🍁 **Shade-tolerant:** sugar maple, balsam fir, red spruce
- 🍁 **Extremely shade-tolerant:** eastern hemlock

Based on the above list, it is easy to see that an abandoned farm field will first be occupied by species like paper birch and pin cherry. Over time and as these species die, yellow birch and eastern white pine may start to dominate the area. Eventually, the most shade-tolerant species, like sugar maple and red spruce, may assume the leadership role.



Succession. Source: Rondi Doiron

The diagram on the previous page is a simple illustration of how the abandoned field we have been describing may change over time. Keep in mind, that this process can be altered (and set-back) by **disturbances** such as logging, severe windstorms, and catastrophic wildfires. When there are no great disturbances, changes can be gradual and take many decades.

As trees grow, they compete with one another for light, nutrients, and water. In a crowded forest, some trees will outcompete and outgrow the others. In contrast, some trees will lose the race, grow less, and possibly become stunted. Given this dynamic, it is easy to see that smaller trees are not necessarily younger trees. These trees may have been outcompeted by superior and faster-growing trees. The bottom line is that smaller trees may or may not be younger trees. In addition, trees with plenty of room to grow are most likely to increase in size the fastest. If you are interested in improving the growth and health of your trees, working with a forester can help you achieve the best results.

Your woods may be made up of trees that vary greatly in age or of trees that are all nearly the same age. Various mixtures of these two conditions may also exist throughout your woods. Forests composed of trees of varying ages are called **uneven-aged**. These forests have trees of various sizes and likely contain a variety of tree species. In contrast, many forests are made up of trees that are close to each other in age. As we already discussed, these **even-aged** forests may contain smaller trees that were outcompeted by faster growing trees of the same age. An easy way to envision an even-aged forest is to consider a tree plantation established when a farm field was abandoned. In such a situation, all the trees were planted in the same year and are the same age. Don't be overly concerned with which condition

### Even-aged forests



### Uneven-aged forests



Even vs. uneven-aged. Source: Rondi Doiron

applies to your woods, because most of the management suggestions in this book can be used to help you meet your goals in both even- and uneven-aged forests.

At this point, you may be wondering how foresters view the woods and think about forest management to meet landowner goals. Foresters typically focus management on smaller units of areas, called **stands**, that can be combined to make up larger areas or landscapes. Simply put, stands are forested areas with similar characteristics. These areas are similar in terms of species, tree sizes, and tree ages. They are convenient units for foresters to manage and can range greatly in size. Your property may be composed of many small stands or it may be composed of just one large stand.

On a larger scale, landscapes cover vast areas and are composed of multiple stands and possibly multiple ownerships. Keep in mind, the forestry work done in one part of the landscape can have impacts on the landscape as a whole. Therefore, it is important to consider the “big picture” as you and your forester implement work within individual stands.

The forestry basics in this section might seem complex, but they are necessary as a foundation to build upon. Don't worry about remembering every detail discussed. You can always read this section again at a later time and refresh your memory on key concepts.

## Maine's Forest Types

Two terms that are important to understand in our discussion of forest types are hardwood and softwood. The term hardwood refers to all broadleaf deciduous trees. Two examples of hardwood species are paper birch and red maple. On the other hand, softwood is a term used to refer to cone-bearing species such as red spruce and balsam fir.

**Forest cover types** are groups of tree species that tend to grow together under similar conditions. Some of the cover types found in Maine include spruce-fir, northern hardwood, pine-oak, aspen-birch, and pure species. Although many species may grow together in a cover type, two or three species are most common. You don't need to memorize the cover types but being aware of them can improve your understanding of your woodland.

The **spruce-fir cover type**, which consists primarily of red spruce and balsam fir, is the most common type in northern and eastern Maine. Balsam fir is a short-lived species and finding one over 80 years old is uncommon. In contrast, red spruce is longer-lived and finding one that is over 120 years old is not considered unusual. This is the forest cover preferred by moose, lynx, spruce grouse, and the gray jay.



**Spruce-fir cover type. Photo: Randy Lagasse**



**Red spruce. Photo: MFS**



**Balsam fir. Photo: MFS**

**Northern hardwood cover types** are mostly made up of deciduous species that are also known as broadleaf trees or hardwoods. This type is found throughout the state but is most common in the southern, central, and western regions. Colorful fall foliage usually indicates that a woodland has mixed hardwoods. Yellow birch, sugar maple, and American beech are the most common species in this cover type. Other deciduous species, such as white ash, paper birch, and red oak may also be found in this type. The white-tailed deer, black-throated blue warbler, and black-capped chickadee are common here.



**Northern hardwood cover type. Photo: Dan Jacobs**



**Yellow birch. Photo: MFS**



**Sugar maple. Photo: MFS**



**American beech.  
Photo: MFS**

The **pine-oak cover type**, which is common in the southern part of Maine, is primarily composed of eastern white pine and northern red oak. This type may include other tree species as well. Gray squirrels, wild turkeys, and white-tailed deer tend to live in this cover type.



**Pine-oak cover type. Photo: Oliver Markewicz**



**Eastern white pine. Photo: MFS**



**Northern red oak. Photo: MFS**

**Aspen-birch cover types** are usually composed of quaking aspen (also known as poplar or popple) and paper birch. Both are pioneer species that grow well in disturbed areas and don't like shade. Other species, like pin cherry and red maple, often grow with aspen and birch. Partridge (also known as ruffed grouse) often call this cover type "home."



**Aspen-birch cover type. Photo: Dan Jacobs**



**Paper birch.  
Photo: MFS**



**Bigtooth aspen. Photo:  
MFS**



**Quaking aspen. Photo:  
MFS**



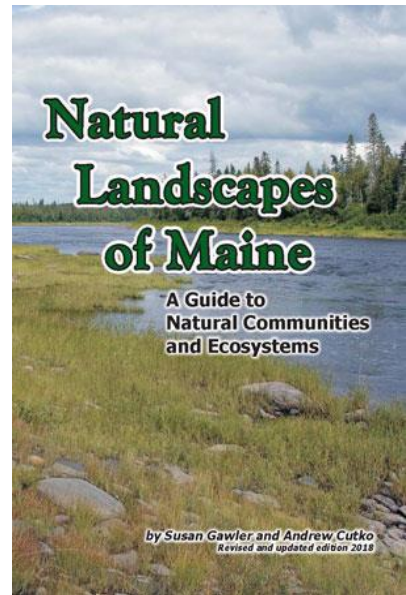
**Pure stands**, or stands composed of mostly one species, may originate from planting, **thinning**, or natural processes. These types of stands can be found in all regions of the state. Some of the species commonly found growing in pure stands include white spruce, red pine, white pine, and beech.



Pure stand. Photo: Dan Jacobs

Not all woodlands fit neatly into one of the types discussed. So, how do you figure out what you have? Start by asking yourself some questions. Does your property have mostly evergreens with a few hardwoods in **gaps** and **edges**? Or, do you see mostly hardwoods with a few tall pines? Determining whether you have hardwoods or softwoods is a good place to start. From there, you can identify some of the most common trees in your woods by using the MFS publication *Forest Trees of Maine* (see page ii).

MNAP's *Natural Landscapes of Maine: A Guide to Natural Communities and Ecosystems* is a great source of information on the types of forests and natural areas in Maine. To order call 207-287-8044 or go to [https://www.maine.gov/dacf/mnap/about/publications/community\\_classification.htm](https://www.maine.gov/dacf/mnap/about/publications/community_classification.htm).



Source: MNAP

## Changes in the Maine Woods Over Time

The Maine woods and the woods in your backyard are always changing. As we already discussed, succession is the replacement of one plant community with another over time. Let's dig deeper and look at how natural disturbances, changes in land use, and the actions of people influence the forest and the landscape.

Natural events such as wildfires, insect infestations, and windstorms can have a huge impact on the forest. In fact, these events can devastate forested areas that are thousands of acres in size. Luckily, heavily impacted forests in Maine eventually recover—likely growing more trees than before. For example, the spruce budworm infestation of the 1970s and 1980s defoliated tens of thousands of acres of spruce and fir forests. Today, these same areas are full of younger and healthier trees that are now large enough to harvest for valuable forest products. Furthermore, most of these trees became established naturally without the need for planting.

People clear land for homes and for agriculture and harvest trees for a variety of uses. These activities can have long-lasting impacts on the landscape, but most ground in Maine “wants” to be forested and tends to return to this condition. Think about a cleared area in the woods and how it grows back to shrubs and trees within a few short years. The ability of the land in Maine to grow trees is even more pronounced when we find abandoned homesteads that have been overtaken by the forest. The best evidence of these homesteads is often an “ancient” cellar hole full of trees.

In short, it is important to recognize the great ability of the Maine woods to bounce back following a disturbance or the abandonment of a non-forest land use. On a large scale, a great illustration of this is the increase in the amount of forestland in Maine over the past century. From 1908 to 2018, the percentage of the state covered in trees has increased from 75% to 89%. This is mainly due to a decrease in agriculture and the ability of the land to grow trees. It is obvious that the relentless nature of our woods has helped make Maine the most forested state in the nation.

## Your Woodland, Your Values

Your goals and objectives for your woodland can be as extensive and varied as the unique history behind your property. Recreation, firewood production, privacy, timber income, wildlife viewing, or any combination of these interests may be the driving forces behind your continued ownership of your woods. Because you always have a choice between retaining or

selling your property, it is important to articulate the personal reasons for keeping your land forested. In fact, research has shown that woodland owners with clearly defined goals are more likely to have a positive ownership experience over the long term.



**Wood splitter. Photo: MFS**

Your woodland is also an important part of Maine’s natural landscape. It protects soil and water, promotes biodiversity, and provides wildlife habitat. As trees take up carbon dioxide and release oxygen, they improve the air we breathe and even help to mitigate climate change. As a careful steward of your piece of the Maine woods, you should take added satisfaction in knowing that you’re promoting a healthy forest and environment for future generations.

## **Improving Your Woodland**

### **Establishing Objectives**

Get to know and appreciate your woods by spending time exploring, observing, and reflecting. Consider what the forest means to you and to the surrounding landscape. Such understanding is fundamental to good forest management.

Considering your objectives and what it takes to meet them is an important step in planning the management of your woods. The following is a list of possible objectives and the actions you can take to reach them:

### A. Maintain and Improve Ecosystem Health

Your forestland is alive with communities of creatures interacting within a complex system. Each species is important to the proper function of the forest ecosystem. You can enhance your forest's ecological health if you:

- ❁ Manage for a diversity of native species.
- ❁ Locate and protect rare and endangered species.
- ❁ Reduce or eliminate **invasive** species.

### B. Enhance Forest Beauty

Healthy forests are usually visually appealing and a source of pride for the landowner. Some ways that you can enhance your woodland's natural beauty and your ability to enjoy it are to:

- ❁ Develop a wildflower garden or **rain garden** (for a short guide to rain gardens, see the Natural Resources Conservation Service's 2005 booklet "Rain Gardens" available at [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_011366.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_011366.pdf)).
- ❁ Create and maintain scenic vistas.
- ❁ Use **low-impact timber harvesting methods** (see <https://www.mofga.org/Programs/Low-Impact-Forestry>).



Rain garden. Photo: Dan Jacobs

### C. Provide Recreation Opportunities

Your woods provide almost unlimited opportunities for you to get out and recreate. You can improve your woodland for outdoor recreation if you:

- ❁ Create or maintain trails for hiking, riding, biking, skiing, bird-watching, hunting, and cross-country skiing.
- ❁ Establish picnic areas.
- ❁ Set up a family campsite.

### D. Improve Wildlife Habitat

The amount, condition, and variety of wildlife species in your woods depends largely on the management techniques you employ. To support abundant wildlife, the forest must offer **space**, food, water, and protection from predators and weather. The following measures can enhance wildlife habitat:

- ❁ Avoid **monocultures**, and grow a variety of species, ages, and sizes of trees and plants.
- ❁ Retain some standing dead trees to provide roosts and nesting sites. A good source of information about bird conservation and forestry in Maine is Audubon's *Forestry for Maine Birds* website at <https://www.maineaudubon.org/projects/forestry-for-maine-birds/>.
- ❁ Seed native grasses and clover on logging roads, trails, and woodyards to provide food for wildlife.



Standing dead tree.  
Photo: Dan Jacobs

### E. Conserve and Improve Soil and Water Quality

Fallen leaves continually create and enrich forest soil. Tree roots and tiny creatures break up woodland soil, making it porous and capable of holding enormous amounts of moisture. Water from rain and melting snow filters through the soil, providing drinking water and nourishing plant life, as it moves downhill to feed lakes and other waterbodies. The following practices

can help to protect your woodland, ensure cleaner water, and reduce soil erosion:

- ✿ Establish or maintain forested areas adjacent to streams, lakes, and ponds.
- ✿ Use low-impact timber harvesting methods to minimize soil disturbance.
- ✿ Use Best Management Practices (BMPs) to protect water quality when doing ground-disturbing activities or projects (see the MFS publication *Best Management Practices for Forestry* listed on page ii).

## F. Generate Timber Income

Just as an untended garden seldom produces bumper crops of vegetables, a neglected woodland seldom produces large quantities of high-value timber. You can take the following measures to increase the amount and value of the timber on your property:

- ✿ Give trees with the most potential to increase in value more room to grow.
- ✿ Plant trees at a favorable spacing in open areas with good soils.
- ✿ Prune trees with the potential to produce high-value sawlogs.

## G. Produce Specialty Products

Specialty products include maple syrup, nuts, fruits, berries, and Christmas trees. These and other non-timber forest products can provide income while your timber is growing to a commercial size. Some suggestions for producing and improving the production of specialty products include:

- ✿ Thin stands of sugar maples to grow healthier trees and promote greater sap yields.
- ✿ Remove vegetation competing with nut- or fruit-producing trees and shrubs like hazelnuts, chokecherries, highbush cranberries, and apple trees.
- ✿ Plant a small forest opening with Christmas trees. Assistance is available from the Maine Forest Service, as well as the Maine Christmas Tree Association (see Primary Resources, page 4).



Chokecherries. Photo: MFS

## Developing a Management Plan

**Management plans** are written documents prepared by a forester or by a landowner with some professional guidance. If you have elaborate objectives or plan to do some timber harvesting, working with a professional forester is strongly advised.

A basic plan may contain a list of landowner objectives, a description and map of the property, and a description of the work needed to meet the objectives.

MFS often has funding to help eligible landowners pay for professionally

prepared plans. Visit the MFS website and the *WoodsWise Incentives to Stewardship Enhancement* page for current program information (see [https://www.maine.gov/dacf/mfs/policy\\_management/wwi.html](https://www.maine.gov/dacf/mfs/policy_management/wwi.html)).

A management plan provides valuable information about your property as well as suggestions to help you reach your goals. You will find more information on planning as you read the remainder of this book.

In addition, the Kennebec Woodland Partnership's guide *Your Woodland: A Resource Guide for Kennebec County Landowners* provides an excellent introduction to woodland ownership and forestry. Although the focus area is Kennebec County, the concepts in this publication are applicable statewide. The guide can be found at [https://www.maine.gov/dacf/mfs/projects/kennebec\\_woodlands/skw/index.html](https://www.maine.gov/dacf/mfs/projects/kennebec_woodlands/skw/index.html).



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**“Managing your woodland means making decisions about what’s important to you.”**

- *Your Woodland: A Resource Guide for Kennebec County Landowners*

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### Do You Know?

#1. Do you know the name of Maine's official state tree?

Answer on page 120

# Backyard Family Activity #1: Scouting Your Land—A Woodland Expedition



With a pencil, a map of your woods, and the “Woodland Expedition Checklist” (next page), you can get to know your woods pretty well. Scout with your family or neighbors and compete as teams to find the most items on the checklist. You may also decide to sketch the locations of the items you find on a map as you work.

If you scout in teams, create a Master Map so that members of each team can sketch what they find when they finish. After this activity is complete, it’s a good idea to make some photocopies of the finished Master Map and add the other Backyard Family Activities to it as you do them. Before you know it, you’ll have an informative and useful tool that you can use for years to come.

## Items Needed

- Copies of the Woodland Expedition Checklist for all expedition members (next page)
- Copies of a property boundary map for each team (either a rough sketch or precise map)

• Pencils with erasers

## Optional Items

- Colored flagging tape to mark property boundaries (available at hardware stores)
- Whistles on strings
- Clipboards (to make drawing on the map easier)

The directions that follow assume that you will work in teams.

## Getting Ready

1. Draw a map or rough sketch of your property using your property deed descriptions, boundary markers on the ground, or aerial imagery from Google Earth. For now, a rough map will suffice. If you have several acres, it’s a good idea to flag your property lines before you start scouting. This will help you stay oriented during the activity.
2. Your scouting teams should be familiar with the section “Gathering Woodland Information” (page 6) or you can explain the concepts to your scouts prior to starting the activity. Many middle-school children have already learned some of these concepts in school.



3. Decide how many stops you'll make to gather information based on the size of your woods. If your property is 300 feet long, you may want to stop every 20 steps to do a quick inventory. If it's 10 acres, stop every 200 steps so that you can finish the activity in an hour or so.
4. If you have more than one team, you'll need to assign them different parallel paths to travel through your woods. All teams should begin their expeditions on the same starting line and end on the same finish line.

Although not essential, providing each team a compass bearing can help them travel in a straight line. If you're interested in basic compass skills, check out "Backyard Family Activity #4: Using a Compass" (page 64), and do that activity before this one.

5. Read the section "Navigating Through Your Woods" (page 52) before you venture into the woods. Getting lost is easier than it seems—especially if your property is part of a larger woodland. Before you begin exploring, be sure that everyone knows how to find their way back to a common meeting place within a certain timeframe. You may also decide to issue each scout an inexpensive whistle with instructions to use it *only* if they're lost. If you plan to go alone, be sure to tell someone where you are headed and when you plan to be back.

Woodland Expedition Checklist	
<input type="checkbox"/> Boundary marker or boundary tree <input type="checkbox"/> Birch tree <input type="checkbox"/> Oak tree <input type="checkbox"/> Maple tree <input type="checkbox"/> Pine tree <input type="checkbox"/> Spruce or fir tree <input type="checkbox"/> Stream <input type="checkbox"/> Wet area <input type="checkbox"/> Rocky outcropping <input type="checkbox"/> Old stone wall	<input type="checkbox"/> Steep slope <input type="checkbox"/> Land depression <input type="checkbox"/> Rotting log <input type="checkbox"/> Gap / forest opening <input type="checkbox"/> Shade-tolerant tree <input type="checkbox"/> Shade-intolerant tree <input type="checkbox"/> Ferns <input type="checkbox"/> Woods / field edges <input type="checkbox"/> Even-aged woods <input type="checkbox"/> Uneven-aged woods <input type="checkbox"/> Foundations

## The Activity

In this activity, you'll get to know the woods in your backyard a little better. You'll identify and record the items listed in the Woodland Expedition Checklist that you find on your property. The end product will be a map of your woods showing features such as tree species, waterbodies, and steep slopes.

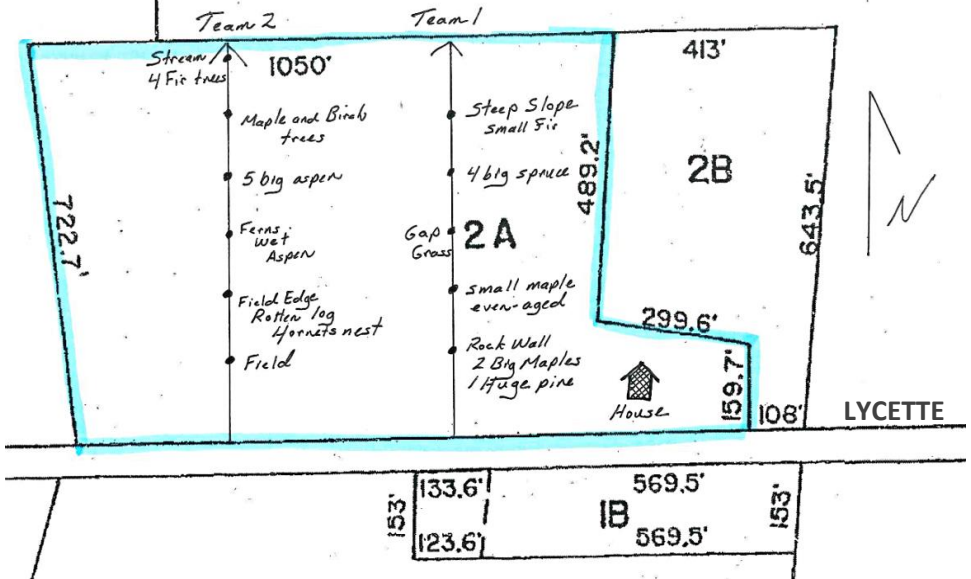
## Timeframe

One to two hours, depending on the size of the property and how many stops you make. Allow an extra half hour for each team to put their information on a Master Map that everyone can see at the end of the activity.

## Steps

1. Review the Woodland Expedition Checklist out loud and make sure everyone is familiar with the terms. Keep in mind, many of the terms are defined in the Glossary (page 123) and in Chapter 1, "Knowing Your Woods" (page 1).
2. Review the safety protocols.
3. Review how to recognize the property lines. Your property lines may be identified with colored flagging, blazed trees, rock walls, wire fences, or other markers.
4. Set the distance between each stop. Decide how many parallel lines you'll need and how far apart they should be. If there are multiple scout teams, assign each team one or more parallel lines to explore.
5. Mark your approximate location on the map at each stop.
6. At each stop, record on the map the number of each checklist item found. Be sure to write small or come up with your own shorthand so that everything will fit on the map. Keep in mind, the types of trees that grow on your property will probably vary from site to site. Therefore, the more lines you walk, the better picture you'll have of what grows in your woods.

Master Map Smith Property  
October 2019



Source: Dan Jacobs

- Have the teams meet to create a Master Map at the end of the activity. If you are doing this activity alone or with only one team, make several parallel lines through your property and label the map as you go. When you finish your expedition, you'll have completed your Master Map and you'll have a good idea where important features are located on your property.

### Woodland Expedition Observation Tips

- 🌸 Do you see hardwoods, softwoods, or both?
- 🌸 Are the hardwoods big, medium, or small in size? Record approximate / average heights and diameters.
- 🌸 Are the softwoods big, medium, or small? Record approximate / average heights and diameters.
- 🌸 How close together do the trees grow?
- 🌸 Are the trees difficult to walk through? If so, they are crowded. Are they 10 feet or more apart? If so, they may be well-spaced.
- 🌸 Do you have to climb over downed trees? If so, note the downfall.