



CARING  
FOR YOUR  
WOODS

**Working  
with Nature**

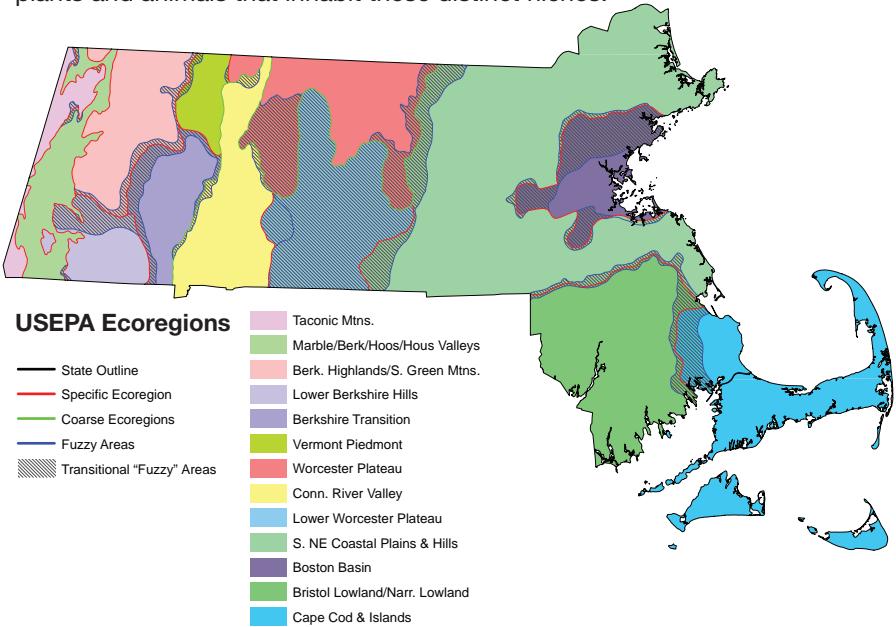




# Our Land

A primary goal of a forest management plan is to assess your forestland, and any assessment will start with the ground beneath your feet. Common references to western, central, and coastal Massachusetts only hint at the geological and ecological diversity in the state; bear down and you'll find more than a dozen distinct ecoregions, each with its own suite of natural communities and unique biodiversity.

Temperature, pH level, and moisture all play a role in determining forest composition. Species like shagbark hickory, mountain-laurel, and sassafras prefer warm, dry sites, while species like yellow birch and balsam fir like it cool and moist. Butternut and basswood love nutrient-rich soil, while bear oak and pitch pine will grow on sand and ledge. You can't manage for everything, so once your forester defines the different forest types on your property, you can set about tailoring management activities to promote the plants and animals that inhabit these distinct niches.





# Water

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So you're on a walk through your woods and you come to a stream. This forest – your forest – is helping to cool and filter this water as it moves across the regional watershed on its way to larger rivers, lakes, and oceans. Every little bit of forest along the way has a huge collective impact in ensuring clean drinking water for humans and healthy habitat for fish and other wildlife.





There are a number of other water features that may be present in your forestland – less obvious than streams or rivers, maybe, but just as important. Fens, bogs, seeps, vernal pools, and marshes all provide important habitat; your forester can fill you in on the unique attributes of each. Understanding what sort of water resources might be present on your land can help you manage your forest in an ecologically responsible way.

It's also important to note that Massachusetts forests are protected under the state's Wetlands Protection Act regulations; when cutting timber, the wetlands protections found in the Massachusetts Forest Cutting Practices Act may also apply. Consult your Service Forester for guidance; additional information can be found on the Resources page at the conclusion of this booklet.



# Wildlife

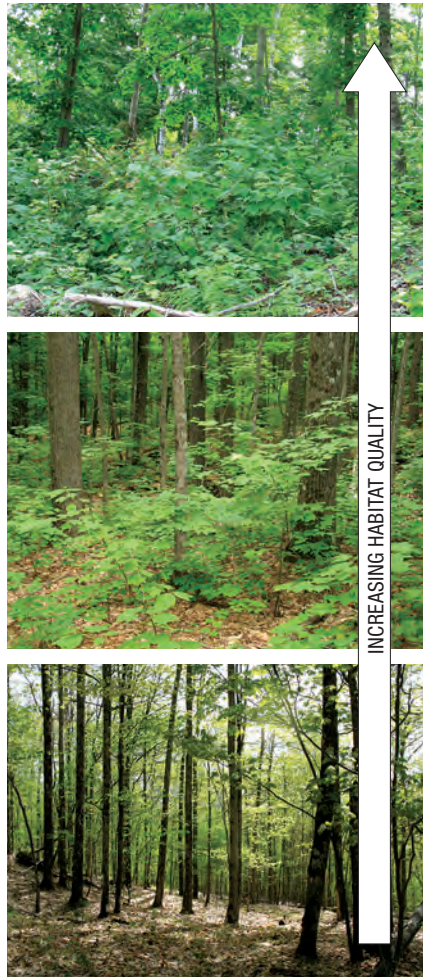
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From an animal's perspective, not all woodland is created equal. Some prefer young forest; others mature forest. Some use young and old forests at different times of their lives. Thus, managing for wildlife is a nuanced proposition that involves evaluating not only your land, but also the land around you to get a sense of the bigger picture.

There are some general rules:

**Diversity is good.** A diversity of tree species, forest types, and forest age classes in an area make it amenable to the widest variety of animal species. When evaluating how diverse a forest is, don't just look side to side, also look up. Birds especially like layers in a forest canopy. Black-throated blue warblers like a brushy understory; wood thrushes thrive when there's a mid-story full of young trees; black and white warblers will benefit from vigorous mature trees in a forest canopy. A well-managed woodlot can have all of these attributes.

High Function



Low Function



**Messy is good.** Park-like forest conditions may be aesthetically pleasing to some humans, but such places are sterile – a sort of wooded desert – for most animals. The food chain starts in the dead wood on the forest floor and the standing snags in the overstory. Brambles, brush, and downed limbs provide food and cover for wildlife. Left to its own devices, nature creates disorder through wind and ice storms, fire, insect infestation, and the limited life-span of trees. Humans can mimic these natural disturbances with chainsaws and feller-bunchers.



A young gray fox looks out from its den in a downed log.





# Invasives

There's a good chance that as you read this you are surrounded by items – clothing, electronics, and countless consumer goods – that have come from other countries. It's equally likely that some foreign plants and insects have taken up residence in your woods. In some cases, they have come in undetected thanks to international trade; in others, they were introduced with good intentions but little forethought as to the long-term consequences.

You've likely heard of the invasive insects – among them Asian longhorned beetle, emerald ash borer, hemlock woolly adelgid, gypsy moth – that are devastating forest ecosystems here. But there's also a suite of invasive plants – some 70 have been documented in Massachusetts – that are having a more subtle but nevertheless serious effect on forest health. When you look up at the towering trees in your woods, it can be difficult to believe that much smaller plants such as oriental bittersweet, multiflora rose, and common barberry could pose much threat. But when these invasives take over the forest floor, which they have the power to do, they can choke out seedlings just starting to grow and halt forest regeneration in its tracks. Acre upon acre of Massachusetts forests are facing just this fate.

The challenge posed by invasives can seem very daunting, but your forester can fill you in on the control products and techniques available to minimize invasive damage. They may also be aware of funding opportunities to help offset the costs of combatting invasives.

Clockwise from top left: oriental bittersweet vines choke a tree, emerald ash borer, spraying multiflora rose, hemlock woolly adelgid, Asian longhorned beetle.





# Climate Resilience

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As our climate changes, our forests will also change. Warmer temperatures, prolonged wet and dry periods, and stronger storms will gradually alter the species of trees found in our state. New tree diseases and insects may move north into Massachusetts. Birds and wildlife will likely move in and out of our woods based on new weather patterns.

While we cannot control the weather, there are a multitude of ways that forests can be managed to acknowledge the new normal. This may mean encouraging a different mix of tree species when conducting a timber harvest, or creating habitat for wildlife that is stressed by shifting weather patterns, or guarding against invasives that may arrive thanks to a changing climate.

The whole subject of climate change is complicated, and we often find ourselves bombarded with information – some of it conflicting. But since everyone agrees that forests improve the health of our planet and help to create a more stable climate, we know that keeping forests as forest is among the best things we can do to help the global environment. With some 3.2 million acres of forest in Massachusetts, forest landowners in the state are in a position to make a significant contribution.





Clockwise from top left: ski-tipped emerald dragonfly, American ginseng, glacial erratic



# What Makes Our Woods Unique

Talk about diversity! There are 169 animal species and 258 species of plants that are protected under the Massachusetts Endangered Species Act. Ask your forester if any of these novelties exist on your land.

Many forest parcels also contain interesting cultural artifacts. Old piles of hemlock tanbark, used to tan hides in the nineteenth century, can still sometimes be found where conditions are right. Old charcoal mounds – earthen, brick, and stone – dot the region and serve as relics of the colonial iron industry. Old cellar holes, apple trees, and cemeteries; ancient hearths, bone pits, and flint chips; all hint at the human history that unfolded before our time. Taking a woods walk with a forester can be a great first step to learning more about both the cultural and the ecological rarities on your land.

Speaking of walks, perhaps the best way to discover all that makes your woods special is to make recreation an important goal in managing your land. The enhancement of your forest for recreation is seen as an important aspect of sustainable forestry. Creating trails (walking or skiing) and access points that highlight natural features of the land can help get you out in your woods more often and build a stronger sense of stewardship and connection. It's a great way to help you observe changes on the land over time.

Plus, there is clear evidence that spending time recreating in forests can have positive effects on physical and mental health. Your forest is a unique place for leisure activities, restoration, and recovery from stress.

# Resources

The following resources can help you learn more about issues related to caring for your forest.

## MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

There are 3.2 million acres of privately and publicly owned forest land in Massachusetts. Within the **Department of Conservation and Recreation**, the **Bureau of Forest Fire Control and Forestry** serves all of these owners and the forests they care for.

One important program for private landowners in the state is **Service Forestry** (also known as Private Lands Forestry), which provides technical and financial assistance to private landowners and municipalities in forest resource planning, forest management, and forest protection.

[www.mass.gov/service-details/service-forestry](http://www.mass.gov/service-details/service-forestry)

## FOREST MANAGEMENT AND WATER

The two Massachusetts laws that regulate activity in and around wetlands and riparian areas are the Massachusetts Wetlands Protection Act (CH 131), and the Forest Cutting Practices Act (CH132). You can learn more about these and related regulations on the websites below.

[www.mass.gov/guides/protecting-wetlands-in-massachusetts](http://www.mass.gov/guides/protecting-wetlands-in-massachusetts)

[www.mass.gov/guides/forest-cutting-practices-act](http://www.mass.gov/guides/forest-cutting-practices-act)

## WILDLIFE

This information available through masswoods can help with managing forests to enhance wildlife diversity in Massachusetts.

[www.masswoods.org/caring-your-land/wildlife](http://www.masswoods.org/caring-your-land/wildlife)

Mass Audubon has partnered with the Department of Conservation and Recreation and the Mass Woodlands Institute to bring the Foresters for the Birds program to Massachusetts. This program provides technical assistance for landowners to manage their forests for bird habitat. Carefully planned and sustainable forestry practices can create young forest habitat, and enhance the structure within our maturing forests.

[www.massaudubon.org/our-conservation-work/wildlife-research-conservation/forest-birds](http://www.massaudubon.org/our-conservation-work/wildlife-research-conservation/forest-birds)

The MassWildlife Habitat Management Grant Program was developed to establish partnerships between MassWildlife and private and municipal landowners to enhance habitat

and increase recreational opportunities on properties across the state. [www.mass.gov/service-details/masswildlife-habitat-management-grant-program](http://www.mass.gov/service-details/masswildlife-habitat-management-grant-program)

MassWildlife's Natural Heritage & Endangered Species Program (NHESP) is responsible for the conservation and protection of hundreds of species that are not hunted, fished, trapped, or commercially harvested in the state, as well as the protection of the natural communities that make up their habitats. Maps maintained by the NHESP that show current and historic locations of rare species. [www.mass.gov/orgs/masswildlifes-natural-heritage-endangered-species-program](http://www.mass.gov/orgs/masswildlifes-natural-heritage-endangered-species-program)

## INVASIVES

The Massachusetts Introduced Pests Outreach Project provides information about invasive plants in the state.

[www.massnrc.org/pests](http://www.massnrc.org/pests)

The Invasive Plant Atlas of New England has created a comprehensive web-accessible database of invasive and potentially invasive plants in New England that is continually updated by a network of professionals and trained volunteers.

[www.eddmaps.org/ipane](http://www.eddmaps.org/ipane)

## CLIMATE RESILIENCE

A changing climate is changing our forests, and therefore management decisions. This guide, available through the masswoods website, was created to provide landowners, foresters, conservation organizations, and municipal officials a framework for addressing these challenges in an integrated way that is specific to your forest and takes into consideration your individual goals, available time, and resources.

[www.masswoods.org/sites/masswoods.net/files/Forest-Resiliency.pdf](http://www.masswoods.org/sites/masswoods.net/files/Forest-Resiliency.pdf)

## CULTURAL RESOURCES

BioMap2 Town Reports provide local biodiversity information to assist in specific conservation efforts at the town or regional level.

[www.mass.gov/service-details/biomap2-town-reports](http://www.mass.gov/service-details/biomap2-town-reports)

The Massachusetts Historical Commission provides a database covering historical properties throughout the state.

[www.mhc-macris.net](http://www.mhc-macris.net)

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**Northern  
Woodlands**

Produced by the Center for Northern Woodlands Education,  
publishers of *Northern Woodlands* magazine.  
[www.northernwoodlands.org](http://www.northernwoodlands.org) | (800) 290-5232



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