



You Can Help

Be a climate-informed wildlife advocate. Support science-based forest management to create habitat that animals need now and in the future.

Want to make some young forest? Contact your state's wildlife agency, the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, the USDA Natural Resources Conservation Service, or a certified forester for details. For some projects, full or partial funding may be available. Find contacts at www.newenglandcottontail.org and www.youngforest.org

Resources

“Forest Carbon: An Essential Natural Solution for Climate Change,” by Paul Catanzaro and Anthony D’Amato, University of Massachusetts and University of Vermont (2019). Download at <https://youngforest.org/resource/forest-carbon-essential-natural-solution-climate-change>

“Carbon and Conservation on MassWildlife Forest Lands,” by John Scanlon and Brian Hawthorne, *Massachusetts Wildlife* magazine (2019). Download at <https://newenglandcottontail.org/resource/carbon-and-conservation-masswildlife-forest-lands>

Graph is based on statistics from Forest Inventory and Analysis (FIA) data, U.S. Forest Service.

Photo credits: Tom Berriman, Kelly Boland, Bill Byrne, Steven Eustis, Charles Fergus, Tim Flanigan, Paul Fusco, Richard Martin, Jonathan Mays, USFWS



Protecting Forests, Storing Carbon, and Helping Wildlife



Keeping Forests Healthy in a Changing Climate



Climate change is affecting people, plants, and wildlife. Carbon dioxide released by humans’ burning of fossil fuels is the key “greenhouse gas” driving climate change.

Forests are a crucial resource for limiting this process. Through photosynthesis, trees remove, or *sequester*, carbon from the air. The trees *store* the carbon in their wood. Much of the Northeast is forested: around 72 percent in the six New England states plus New York. Young, quickly growing trees sequester and store carbon at a rapid rate. Older, slower-growing trees sequester carbon more slowly but have the capacity to store more carbon.

Forests are also important for many other reasons, including keeping our air and water clean, providing habitat for wildlife, and letting us enjoy healthy outdoor recreation and the beauty of nature.

Diversity is Key

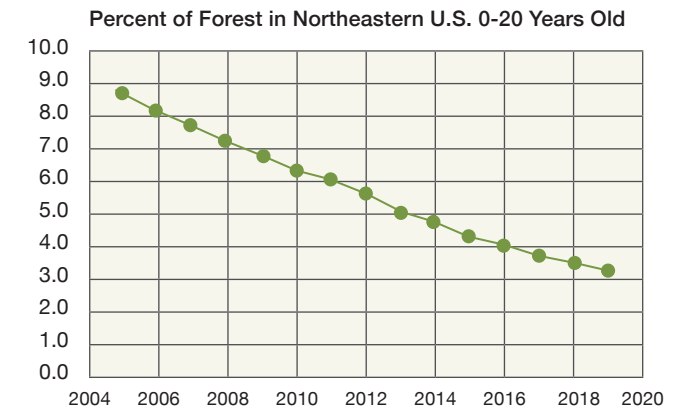
As we work to sustain our forests’ health, we must keep in mind animals’ habitat needs. Good habitat provides wildlife with food, water, and hiding cover. Having diverse wildlife— insects, amphibians, reptiles, birds, and mammals—requires diverse habitats, including forests of differing ages made up of different kinds of trees.

Areas of trees and shrubs that are 1 to 20 years of age are *young forest*. In times past, there was more young forest on the land. Today, only around 3.3 percent of Northeastern woodlands are classified as “young.” As our woodlands have grown older, some kinds of trees have become scarce. When trees are all the same age and the same few species, there’s less diversity in our forests, which causes the populations of certain kinds of wildlife to fall.

Many animals require the abundant food and hiding cover produced by thick, rapidly growing young forest. They include the New England cottontail, ruffed grouse, American woodcock, blue-winged warbler, eastern towhee, wood turtle, and many others.

More common animals that live in a wider range of forest age-classes—such as wood thrushes and scarlet tanagers, wild turkeys, black bears, and white-tailed deer—also need young forests in different seasons and at different times in their lives. For instance, many songbirds that nest in older forests take their fledglings to young forests to find insects and fruits in a thick setting where the young, inexperienced birds can feed while evading predators.

Most forests in our region are privately owned. For many landowners, seeing wildlife on their properties is a major reason for owning a woodland. When landowners take management actions to promote habitat diversity, they see more wildlife and help many different animals thrive.



Forests Need Disturbances

Human activities, such as cutting trees to make charcoal, historically played an important role in creating young forest. Nature also helped provide a patchwork of this habitat: In times past, disturbances like wildfires and floods killed many trees, yielding an ongoing supply of young forest. Beavers' tree cutting and dam building turned areas of older woods into openings that, after the beavers moved on, grew up with small trees and shrubs. Today, to prevent damage to our developments and protect lives, we have dammed rivers, suppressed wildfires, and limited beaver activity, halting those natural disturbance processes.

Fortunately, we can help wildlife by creating disturbances in a controlled, scientific way by carefully cutting trees in strategic places. Harvesting timber (logging) can lock up carbon when the wood is used for buildings, furniture, flooring, and other long-lasting products. Heating our homes and other structures with wood reduces the amount of oil and natural gas that we would otherwise burn in our furnaces, limiting the amount of carbon released into the atmosphere. Since harvested wood from managed forests

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is replaced through ongoing tree growth, these approaches offer a sustainable source of timber products, heat energy, and, in many cases, revenue for landowners.

Logging can boost forest diversity by opening up spaces for different kinds of trees, including those that need more sunlight than what’s available in the shade of older forests. A mix of tree species and ages is good for a forest’s health, strengthening its ability to resist diseases, insect pests, invasive plants, and extreme climate events such as droughts, storms, and excessive rainfall. And the resulting diversity—of tree size, density, and type—leads to having diverse wildlife.

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A Complex Issue

A growing number of concerned citizens believe that the most important thing trees and forests can do is to sequester and store carbon to limit climate change. Creating young forest that rapidly captures carbon can contribute to that goal while also helping to fulfill the habitat needs of both common and rare wildlife.

Foresters and wildlife scientists agree that managing forests to increase habitat diversity does not significantly harm the forests’ overall ability to absorb carbon and slow down climate change. And such management actions are necessary to keep many kinds of wildlife alive. (For a more technical explanation of forest carbon and the effects of forest management, see the publications in the **Resources** section.)

Making a Balanced Decision

The most important thing we can do to address climate change is to protect forests. Turning a woodland into a development—whether a tract of houses or a solar collection field—causes an immediate carbon release, as well as ending the woodland’s potential for sequestering and storing carbon in the future.

As a landowner, you want to take care of your woods. You may also want to make your forest a welcoming habitat for a variety of wildlife. Look beyond the borders of your property. If ample older forests already exist, you may decide to conduct a timber harvest to add some young forest to your land and neighborhood.



Important Things to Remember

- 1 Carefully managed forests provide many benefits, including carbon sequestration and storage, along with wildlife habitat.
- 2 Many deep-forest songbirds take their fledglings to areas of young forest to feed on the abundant fruits and insects there.
- 3 Some animals need older forests, while others need areas of young, thick, rapidly regrowing trees and shrubs.
- 4 A diversity of habitats ensures a diversity of wildlife.
- 5 For forests to be healthy, they need a variety of trees of differing ages.
- 6 When you harvest trees, young trees grow back quickly in the same place.
- 7 Protecting forests, including those managed for timber products and to create wildlife habitat, is one of the most important ways of combating climate change.

