



Managing Your Woodlot with Birds and Wildlife in Mind

Want to learn more about how to improve the overall health of your forest? Birds can help! Birds are great indicators of your woodland's condition because they need a variety of trees and other forest features to successfully breed and raise their young. For that reason, birds provide a natural gauge of how your actions are affecting the quality of your woods and its inhabitants.

It may surprise you to learn that Maine is home to some of the highest diversity of forest breeding bird species in the continental United States. Your woodland can help play a critical role in conserving Maine's "baby bird factory" and reducing population declines. You can play an active role by managing your woodland "with birds in mind." And there's an added benefit—what's good for birds is good for other wildlife and timber as well. Providing habitat conditions desired by forest birds also supports other wildlife such as bobcats, flying squirrels, and red-backed salamanders.

With careful planning, you can have productive woodlands that provide wood for you and your family, and also provide habitat for many of the bird and other wildlife species that call Maine home. A forester or wildlife biologist can help determine which actions are most suitable for the unique conditions on your property.



Here are some actions you might take on your land and why they are important:

- **Inventory and map your land for important habitat features. Learn which resources already exist on your land.** Take your mapping even further by looking at the landscape beyond your property lines to understand how your land fits into the big picture. From this perspective, you can view your woodlands in such a way to ensure that your forests have a diverse age structure. A small portion of young forests, a larger portion of intermediate-aged forests, and an even larger portion of mature forests is ideal. A professional can help you distinguish between different age structures. Google Earth and Google Maps are great sources of free, aerial imagery. MyLandPlan.org also provides the tools you need not only to map and journal about your woodland but to set management goals, communicate with natural resource professionals, and find additional support.
- **Manage for a variety of tree and shrub species, ages and sizes.** This will help provide habitat for a larger variety of bird species, as each one uses different parts of the forest for feeding, nesting and raising young. Additionally, promoting a variety of tree and shrub species uncommon to the surrounding landscape will allow your woodland and its inhabitants to be more resilient to change and disturbances. To maximize diversity, create multiple forest layers with shrubs and trees of different ages and sizes wherever possible; support a variety of tree and shrub species in the forest understory, midstory, and overstory; and

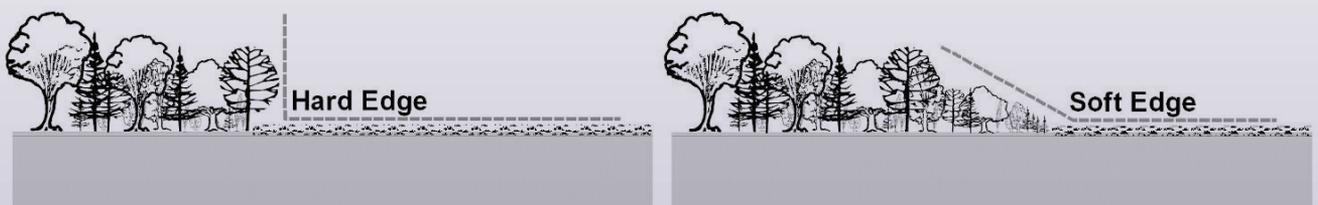


include softwood patches in hardwood stands. If your forest is part of a landscape that lacks older forests—which a forester can help you determine—try to have the majority of your forest in mature or relatively mature. Older, structurally diverse woodlands can often look messy to us, but remember: complex, messy forest structure attracts and supports a wide diversity of life in your woods. “Messy is good!”

- **Leave dead and dying wood standing for food and nesting, and leave other dead woody material on the forest floor for food and shelter.** Snags (standing, dead trees) and downed trees serve as resting and nesting sites as well as food sources for many Maine birds. Other species like raccoons, flying squirrels, bats, porcupines, and wood ducks also use tree cavities for nesting or denning. Birds of prey use snags as hunting viewpoints. Fallen logs serve as drumming sites for ruffed grouse and provide a home for salamanders, snakes and shrews. Piles of finer woody material (branches, treetops) on the ground provide shelter and food for small birds and can help protect young trees from browsing by deer and moose. Leaf litter is used for building nests by ground-nesting birds like the ovenbird.
- **Grow native trees and shrubs that are suited to the site, including those that produce fruits, seeds, or nuts.** These trees provide a great food source for birds and other wildlife living on or passing through your land. They will be especially important during fall migrations and during winter months for birds that remain year-round. Examples of food trees include serviceberry, black cherry, raspberry, and dogwood. You can also encourage the growth of white pine, hemlock, and other evergreens to provide important cover for wintering birds. A forester can help you determine which native species may be best suited for your site
- **Restore and maintain habitat around wetlands and along streams and creeks.** The wet edges along waterways are referred to as riparian areas. Many birds use riparian habitat during both migration and breeding season. In addition, up to 80% of Maine’s wildlife species use riparian habitat during some or all of their life cycle. Riparian areas that are at least 100 feet wide provide baseline needs for some songbirds, but wider areas are preferable. Areas that are 250-600 feet wide provide ideal nesting habitat and travel corridors for wood thrush, wood ducks, wood turtles, and bobcat. Any harvesting in riparian areas should be done carefully to minimize soil and water disturbance; to retain large snags, shade and nesting trees; and to maintain a full tree canopy. Larger trees provide nesting and perching sites for tree-nesting ducks and large raptors, keep streams cool for cold-water fish like brook trout, and eventually are a source of woody material on the ground and in streams as they die and fall over.
- **Identify and maintain unique habitats such as wetlands, vernal pools, rare animal sites, old growth stands, and deer wintering areas.** In addition to riparian areas, wetlands, vernal pools, rare plant and animal habitat, old growth stands, and deer wintering areas are highly valuable forest habitats. A forester or wildlife biologist will be able to help you identify these unique habitats. To help conserve overall landscape biodiversity, consider leaving some of these habitats as no-harvest areas and manage others with very light-touch harvesting. To learn more about light-touch harvesting recommendations, check out the University of Maine’s Biodiversity in the Forests of Maine.



- **Create small forest openings, if they are lacking on landscape, to encourage young trees, shrubs, and grass that can provide cover, nesting sites, and food sources.** Small gaps in older forests create optimal habitat for a variety of bird and other wildlife species that feed and nest in areas with little or no canopy cover. These small gaps should include younger and smaller tree and shrub species as well as grasses. They should be less than 2 acres in size to avoid breaking woods into small forest patches.
- **Create piles of brush and branches to shelter and feed birds and other wildlife.** You can create brush piles by stacking downed tree limbs and branches. These piles are a great source of shelter for many animals that call your woods home, especially during the winter. They also provide a haven for insects that are a food source for many birds.
- **Remove invasive plants because they don't support native wildlife.** Many invasive plants have fewer insects and fruits with lower nutritional value than natives, which is especially troubling for the thousands of migratory birds passing through Maine in need of nourishing food for their journeys. What's more, non-native, invasive plants often out-compete and reduce the presence of important native plants. Native plants provide a nutritious food source in the form of fruit and seeds, are home to other tasty treats like caterpillars and spiders, and provide a safe space for birds to build their nests.
- **Where possible, create and enhance large (at least 250 acres) forest blocks with unbroken canopy cover and minimal roads.** In areas lacking large forest tracts with intact cover, these blocks have the potential to support a greater variety of birds. Avoid breaking up forest patches. You can maximize "unbroken" forest habitat by considering how much edge your forest has compared to the interior forest area. Circular and square forest patches provide more unbroken forest habitat than oblong or rectangular shaped forest because there is less edge habitat surrounding the same amount of interior habitat.
- **Thin your woods or conduct a harvest to enhance bird and other wildlife habitat.** Thinning removes less desirable trees from your woods. Like thinning a patch of carrots in your garden, the goal is to promote the growth of select trees by decreasing the density of surrounding trees. As a result, competition among trees for soil nutrients and sunlight decreases, encouraging growth of the remaining trees. Healthy larger trees produce higher quality timber and are used by many bird species of conservation concern and other wildlife populations as well.
- **Create transition zones (soft edges) to avoid drastic changes between wooded and non-wooded habitat using vegetation that gradually increases in size.** An edge is a place where two different types of habitats meet. Softer edges have a transition zone with a gradual change in vegetation height. Predators and nest parasites are the greatest threat to birds within 150 feet of the forest edge. Soft edges with transition zones help keep birds nesting near the forest edge safer by creating a buffer between wooded and non-wooded habitat.



- **Conduct harvests during winter or dry soil conditions to avoid disturbing amphibian and bird breeding seasons (April to mid-July).** Maine amphibians and birds breed throughout the spring and early summer. Conduct your harvest and other potentially disruptive activities during winter when the ground is frozen or during late summer/fall when the soil is dry. Similarly, conduct operations that require soil disturbance to promote species such as white pine outside of the breeding season window and on dry soils. This will minimize disturbances to the soil, to young amphibians as they emerge from breeding pools in mid-summer, and to birds nesting and raising their chicks.
- **Learn to identify Maine's 20 priority birds.** Maine Audubon has identified 20 forest bird species of high conservation priority based on declining populations, growing risks and threats, and/or the relatively large portion of their global populations found in the Northeast. While many other forest bird species are at risk and in decline, these 20 species use a variety of different forest types and habitats for feeding and nesting, and are relatively simple to identify by sight and/or sound. Woods composed of a mix of vegetation and other habitat characteristics will not only provide for these 20 species of birds, but also for many more birds and other wildlife species that call the Maine Woods home.
- **Talk with your neighbors about working together for birds and other wildlife.** Help spread the word about how to maximize benefits for birds and other wildlife across the landscape and beyond the boundaries of your own land. Perhaps you and your neighbors can provide a broader variety of habitats by working together to create necessary bird and wildlife habitat across your landscape. By getting your neighbors involved, you can connect one forest block to another, reconnect streams, and better protect wetlands (including vernal pools) that cross property lines. Your combined efforts will have an even bigger impact on Maine's birds and other wildlife.

For more information please contact Maine Audubon at (207) 781-2330 or info@mymainewoods.org or visit our website at www.mymainewoods.org.

This fact sheet was synthesized from informational materials created by Audubon Vermont, Maine Audubon, and the University of Maine, including:

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