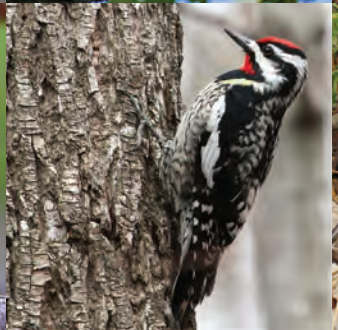
A Woodland Owner's Guide to

Forestry for Maine Birds

Forestry for Maine Birds (FFMB) is a new approach to managing woodlands. It helps foresters, loggers and family woodland owners like you see the forest "for the birds" when designing and implementing management strategies.



Members of the Young Birders Club searching for woodland birds.

Large birds like owls and ravens use the tops of large trees for their stick nests.

A Wood Thrush patiently incubating eggs.

Why Use FFMB in Your Woodland?

Woodland owners like you can help improve habitat for wildlife. In fact, you are the key to helping bird populations in decline recover, and to keeping common birds common. Eighty-six thousand families in Maine own more than five million acres (almost a third of Maine's total woodland acreage), in parcels as small as 10 acres. No matter the size, each woodland managed for wildlife habitat makes a difference.

WILDLIFE HABITAT

FFMB management enhances the physical features of your woodland, such as downed logs and multiple layers of vegetation that provide hiding places and sources of food not just for birds but for many other species of wildlife.

HEALTHY FORESTS

FFMB management helps make your woodland resilient so it can withstand intense rain events, windstorms, emerging pests, and other threats to forest health.

FLEXIBILITY

FFMB works with most other goals and objectives you might set as a woodland owner, from creating recreational opportunities to harvesting timber to maintaining value.

LEGACY

Your sustainably managed woodland maintains its long-term value for future generations and heirs. It also protects clean air and water and a host of other important values that benefit future generations.

FINANCIAL ASSISTANCE

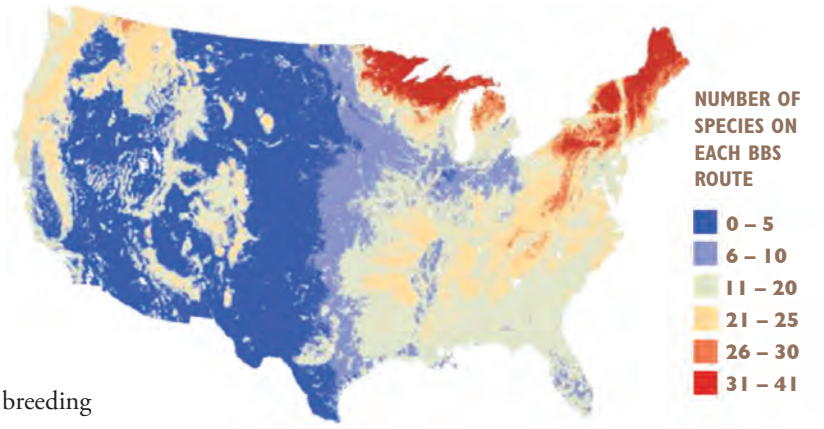
You may be eligible for funds to help with stewardship plans, habitat enhancements, and forest improvement projects.

FFMB workshop attendees looking at forest features and singing birds.

Photo: © Ken Janes

Why is FFMB important?

Even with Maine's more than 17 million acres of woodland habitat, populations of our woodland birds are in decline. For some species, the declines are as great as 80% over the last four decades. We also have fewer woodland species now, with current Breeding Bird Surveys recording about 20% fewer species compared to the surveys conducted in the late 1960s.



The Northeast forests are home to a large number of bird species. The red area on the map shows the richest mix of forest bird species in the U.S., as measured by USGS Breeding Bird Survey Data 2004–2006, Goetz et. al, 2014

WHAT DO BIRDS NEED?

More than 100 bird species make their home in Maine's woodlands. Birds may live here year-round, breed in the summer, or rest and refuel on their way to breeding and wintering grounds. Maine's woodlands can help these populations recover by providing the three things they need to survive:

Food Abundant insects, spiders, caterpillars, seeds, nuts, and fruit are found on Maine's diverse tree and shrub species.

Cover Dense vegetation and physical structures such as downed logs, branches, and leaf litter help birds hide from hungry predators.

Territories Birds need their own space, with very specific habitat requirements, in order to build nests and raise young.

THREATS TO FOREST SONGBIRDS

There is no simple answer to the question of why forest songbirds have declined, but many issues continue to threaten their future.

Habitat Loss Development and expanding agriculture reduces the acreage of forest across the globe, affecting both long-distance migrants and Maine's resident birds.

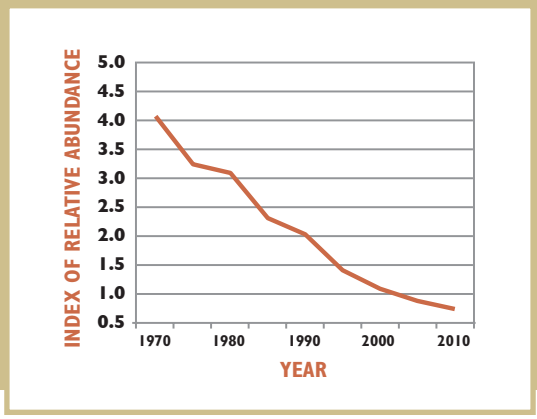
Fragmentation Roads, development, forest management, and agriculture fragment large blocks of contiguous forest into smaller blocks, reducing habitat quality.

Climate Change Ranges are shifting northward, meaning new competitors for limited habitat. Earlier flowering and fruiting and more extreme storms challenge bird survival.

Balance of Younger and Older Forest Timber harvesting has already altered the ages and sizes of trees across the landscape, making older forests harder to find.

CANADA WARBLER: THE POSTER BIRD FOR DRAMATIC DECLINES

Canada Warblers, one of the most at-risk forest songbirds in the Northeast, nest on or near the ground in forests dominated by deciduous trees (Northern Hardwoods) or a mix of deciduous and coniferous trees (Northern Mixedwoods). A key habitat feature for Canada Warblers is dense woody vegetation in the understory (1–6' from the forest floor).



Breeding Bird Survey data show Canada Warbler populations in the Northeast have consistently declined 4–7% per year over the last four decades.

FFMB Priority Species

FFMB has identified 20 forest bird species of highest conservation priority based on declining populations, growing risks and threats, or the relatively high proportion of their global populations found in the Northeast. We have the opportunity to make a difference in the future of these species by improving the forest habitat where they live and breed right here in Maine. If we can help these priority species, we will also help many other wildlife species that make their home in the Maine woods.

The following pages include written descriptions of habitat, natural history, and songs for 16 FFMB priority species, four for each of the Forest Habitat Associations included with FFMB (see page 9), as well as a generalized habitat features diagram (see below) and a few sentences describing desirable habitat conditions.

BIRD IDENTIFICATION

Bird identification can be challenging, but there are many great resources to help get you started. In addition to printed guides (*Sibley Guide*, *Peterson Field Guide*, *Field Guide to Birds of North America*), smart phone apps such as Merlin and Audubon Birds have songs for each species, and some even share what birds have been reported near you. Visit the FFMB webpage (maineaudubon.org/ffmb) for links to more bird identification resources, and to a set of printable "trading cards" that you can take in the field.

Over 800,000 people watch wildlife in Maine every year, spending almost $800 million annually.

GLOSSARY OF TERMS

See pp. 9–11 for more detailed definitions

Canopy All vegetation >6' high

Dead Woody Material Branches and logs on the forest floor

Gaps Openings in the forest canopy

Leaf Litter Accumulated leaves on the forest floor

Hardwoods Deciduous trees that lose leaves in fall

Midstory Vegetation from 6–30' high

Overstory Vegetation over 30' high

Snags Standing Dead Trees

Softwoods Coniferous trees with needles

Understory Vegetation 1–6' high

FFMB BIRD GUIDE

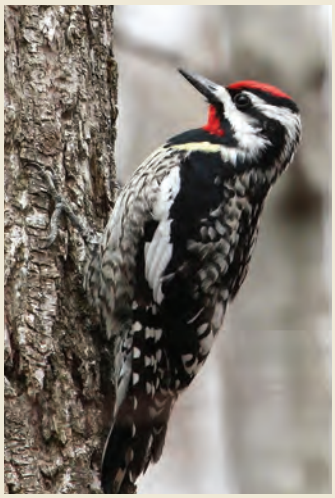
KEY TO HABITAT FEATURES

LAYERS Light gray lines divide overstory (>30'), midstory (6–30'), and understory (<6'), and are not to scale.

BIRD Layer where bird typically seen and/or where male typically sings.

NEST Typical nest type and height.

Yellow-bellied Sapsucker

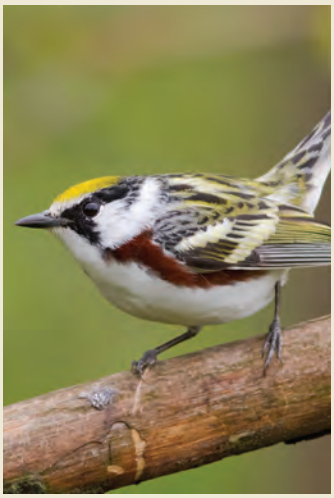


Uses larger snags or live trees with inner decay to excavate nesting cavities. Often excavates a series of sap wells in live tree trunks that attract insects over time. Territories up to eight acres in size. Found statewide and year-round. Drums an irregular series of taps that sound like Morse code, slowing at the end.

DESIRABLE CONDITIONS

Older stands with snags; live aspen, poplar, alder, birch with heartwood decay.

Chestnut-sided Warbler



One of the birds in most dramatic decline in the Northeast. Nests <6' from the ground in dense small tree stems or shrubs. Typically found in young hardwood forest, often after intense cutting has removed most or all of the overstory. Song is a fast *please-please-pleased-to-MEET-cha*. Found statewide.

DESIRABLE CONDITIONS

Overstory gaps with dense young growth in understory; low or no canopy vegetation.

Veery

Nests on the ground in a cup of dead leaves, bark and mud. Lays light blue eggs. Prefers damp forests. Territory size variable, but usually less than an acre. Song is flute-like and ethereal, like a marble spiraling down a drainpipe: *VEER-Veer-Veer-veer*. Found statewide.

DESIRABLE CONDITIONS

Medium-density canopy; dense understory vegetation; abundant leaf litter; healthy forest wetlands.

Mourning Warbler

Nests low or on the ground amid dense vegetation. Feeds in understory on beetles, spiders and other insects. Will use cut-over areas for up to ten years as young trees regenerate. Loud ringing musical song, *teedle-teedle, turtle-turtle*, the last pair of notes lower. Found in northern and central Maine.

DESIRABLE CONDITIONS

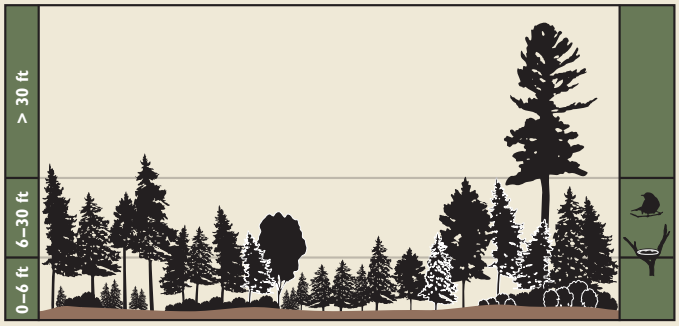
Dense understory vegetation and saplings; small gaps in forest canopy.

Magnolia Warbler

Well-concealed nests usually less than 10' high in dense conifer vegetation. Sings and feeds in the midstory up to 30' high. Maintains small territories (<2 acres). Feeds on a variety of caterpillars, including spruce budworm. Song a short, weak whistled *weta, weta, WETEEA*. Found statewide.

DESIRABLE CONDITIONS

Small gaps in the overstory that promote dense young conifer growth in the understory.



Blackburnian Warbler

Nests in and sings from top of tall canopy. Eats spiders, beetles, and moths. Territories 1–3 acres in size. Song is thin and wiry, increasing in speed and rising to the limits of hearing, *sleet-sleet-sleet-sleet-sleetee-sleeeee*. Found statewide.

DESIRABLE CONDITIONS

Older forests with larger, taller conifers (>40'); dense overstory and midstory vegetation; large (>250 acre) forest blocks.

Canada Warbler

Has experienced dramatic declines over last 40 years. Nests on the ground near mossy hummocks, root masses or downed logs. Prefers moist woods. Song with introductory chips, *I'm –IN –here-but-you-CAN'T-SEE-ME*. Found statewide.

DESIRABLE CONDITIONS

Downed woody material (a "messy" forest floor); medium dense vegetation in the canopy; dense understory and midstory vegetation; healthy soils and wetlands.

Black-throated Blue Warbler

Nests in the fork of a sapling or shrub within dense understory vegetation. Feeds and sings in the midstory. Diet largely moth and butterfly larvae. Song a thick buzzy *I'm-so-la-zeee* with rising endnotes. Found statewide.

DESIRABLE CONDITIONS

High-density overstory; medium-dense understory, especially hobblebush and small hardwood saplings; less dense vegetation in the canopy; large (>250 acre) forest blocks.

Northern Parula

Prefers moist older forests, where it nests in hanging bunches of bearded lichen, usually near water. Eats insects and spiders, but occasionally berries or seeds. Song a series of one or more rising buzzy notes: *bzzzzzz-zip* or *bz-bz-bz-zip*. Found statewide.

DESIRABLE CONDITIONS
Tall trees with dense overstory vegetation, especially spruce, fir and hemlock; healthy bearded lichen; large (>250 acre) forest blocks.

Boreal Chickadee

Nests in old woodpecker cavities and natural cavities, or may excavate new cavities in snags, stumps or rotten branches. Song is a raspy, buzzy *zick-a-zee-zee*, like a Black-capped Chickadee with a sore throat. Year-round resident of Northern Maine.

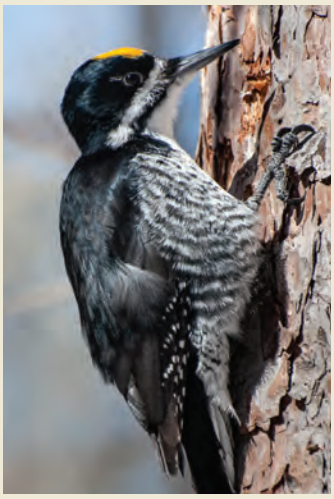
DESIRABLE CONDITIONS
Older stands with tall red spruce and balsam fir; abundant snags; dense vegetation in the canopy.

Black-throated Green Warbler

Nests less than 10' high, but feeds and sings in overstory. Gleans insects from small branches and needles. One of the most common warblers, the song is an easily recognizable buzzy *zee-zee-zee-zoo-zee*. Found statewide.

DESIRABLE CONDITIONS Older forests with large, tall trees and dense vegetation in the canopy and understory; multiple layers of vegetation; softwood patches in hardwood stands, especially Eastern hemlock.

Black-backed Woodpecker



Robin-sized woodpecker. Excavates cavities in relatively sound, tall conifer snags, rarely in live trees. Also chips away bark in search of wood-boring beetles. Large territories of more than 300 acres in Quebec. Uncommon year-round resident in Northern Maine.

DESIRABLE CONDITIONS
Older forests with larger, taller conifer snags; medium- to high-density vegetation in the canopy.

Ovenbird

Prefers forest interiors with deep leaf litter on the forest floor, where it builds a domed nest. Territories can be large (up to 3.5 acres). One of the most recognizable songs, a loud and distinct staccato *teacher-teacher-teacher-teacher*. Found statewide.

DESIRABLE CONDITIONS

Larger blocks (>250 acres) of mature forest with tall trees and a vigorous hardwood canopy (for leaf litter production).

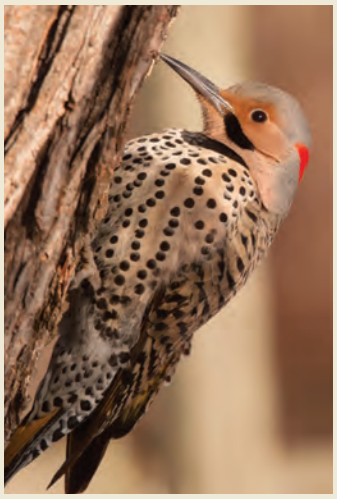
Scarlet Tanager

Nests and sings from the top of the canopy. Eats a wide variety of insects and spiders. Territories vary widely in size (1–12 acres). Song a hurried, burry, repetitive warble similar to a robin, often without pauses. Call a distinct chick-burr. Found statewide.

DESIRABLE CONDITIONS

Larger, taller hardwood trees, particularly oak; dense vegetation in the canopy; blocks of contiguous forest (>40 acres).

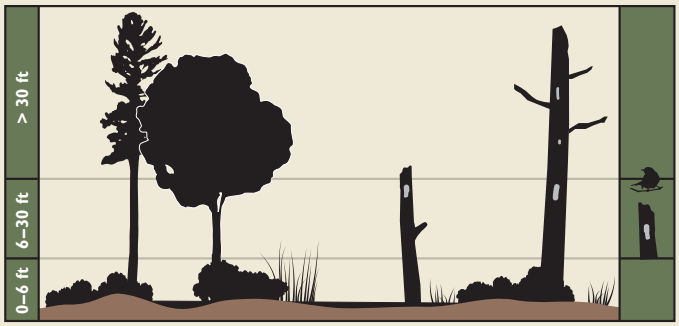
Northern Flicker



Excavates cavities in snags or dead branches. An important "keystone" species because cavities later used by many other wildlife species. Uses a wide range of forest types and age classes. Prefers open, wetter areas with dense grass and/or ground cover. Feeds primarily on the ground on ants and other invertebrates. Found statewide.

DESIRABLE CONDITIONS

Larger snags; live aspen, alder, and birch with heartwood decay; open forest with sparse vegetation.



Wood Thrush

Slightly smaller than a robin. Nesting success decreases in forest blocks less than 250 acres in size. Prefers wetter soils and decaying leaf litter. Song is flute-like *ee-oh-lay-ee*, usually going up in pitch and ending in a sound like shattering glass. Found statewide.

DESIRABLE CONDITIONS

Older, taller trees with dense canopy vegetation; forest floor with medium-density midstory vegetation; large blocks of interior forest (>250 acres).

Managing Forests "With Birds in Mind"

Now that you are familiar with some of the forest birds that are the focus of the FFMB approach, it's time to learn more about the habitat features they are looking for in your woodlands. The following pages highlight nine different habitat features important to not only these birds, but to many other species of birds and other wildlife. Some of the features are simple and easy to create or enhance. Others are more complex and may take years or even decades to create. Below each feature is a list of birds that key in on that habitat feature for singing, breeding, feeding or nesting.

FOREST HABITAT ASSOCIATIONS

To manage your woodland for birds, one of the first things you need to know is what kinds of trees are growing there. A great resource for learning more about Maine's tree species is the Maine Forest Service's guidebook, *The Forest Trees of Maine* (visit www.maineforestservice.gov to obtain a copy). Many birds key in on particular types of trees (softwood or hardwood), or even on particular species (oaks, pines, firs, etc.). FFMB uses four Forest Habitat Associations as a simple way of classifying forest types.

Northern Hardwood Dominated by deciduous trees including sugar maple, red maple, ash, basswood, yellow birch, and American beech. The hard mast or tree nuts produced by beech and oak are an important food source for wildlife.

Black-throated Blue Warbler, Chestnut-sided Warbler, Mourning Warbler, Northern Flicker, Ovenbird, Scarlet Tanager, Veery, Wood Thrush, Yellow-bellied Sapsucker

Northern Mixedwood Neither hardwoods nor softwoods dominate. Typical tree species include red maple, white and yellow birch, hemlock, balsam fir, and red spruce. May be a transition between Northern Hardwood and Northern Softwood Associations.

Black-throated Blue Warbler, Blackburnian Warbler, Canada Warbler, Magnolia Warbler

Northern Softwood Characterized by mixtures of coniferous trees including red spruce, white spruce, black spruce, and balsam fir. Found on cooler sites such as valley bottoms, high-elevation areas, and along the coast.

Bay-breasted Warbler, Black-throated Green Warbler, Black-backed Woodpecker, Blackburnian Warbler, Boreal Chickadee, Magnolia Warbler, Olive-sided Flycatcher, Northern Parula

Oak–Pine Typically dominated by red oak and white pine, along with red maple, hemlock, and aspen. Most Oak-Pine sites cleared 200–300 years ago for fields or pasture.

American Woodcock, Black-throated Blue Warbler, Blackburnian Warbler, Eastern Wood-Pewee, Mourning Warbler, Northern Flicker, Ovenbird, Scarlet Tanager, Veery, Wood Thrush, Yellow-bellied Sapsucker

COVER

Forest vegetation at various heights provides forest birds with places to nest, food to eat, material for building nests, and cover from predators.

OVERSTORY (>30')
Scarlet Tanager, Blackburnian Warbler, Northern Parula, Olive-sided Flycatcher

MIDSTORY (6–30')
Magnolia Warbler, Wood Thrush, Eastern Wood-Pewee, Black-throated Blue Warbler

UNDERSTORY(<6')
Ovenbird, Chestnut-sided Warbler, Mourning Warbler, American Woodcock

Birds look at the species and density of vegetation in the three layers (under, mid, and overstory) to decide if the forest habitat is suitable for their needs.

GAPS

Small gaps in the overstory vegetation allow more light to reach the forest floor, helping young trees and other understory plants regenerate and grow. Gaps are good habitat for insects, an important food source for birds.

American Woodcock, Canada Warbler, Chestnut-sided Warbler, Eastern Wood-Pewee, Magnolia Warbler, Mourning Warbler, Olive-sided Flycatcher

Forestry for Maine Birds workshop participants assess the habitat quality and bird life in a forest gap.

Young forest

Older forest

TREE SIZE

Many forest birds prefer certain sizes of trees for feeding, nesting and resting. Younger forests generally have smaller trees, often growing in dense patches with little or no overstory. Older forests with overall larger trees usually have multiple layers of vegetation and many other structures like snags and downed woody material (see next page).

YOUNG FOREST, <20 years old, trees <5" diameter
Chestnut-sided Warbler, Magnolia Warbler, Mourning Warbler

INTERMEDIATE FOREST, 20–70 years old, trees 5–10" diameter
Canada Warbler, Magnolia Warbler, Veery

OLDER FOREST, >70 years old, trees >10" diameter
Bay-breasted Warbler, Northern Parula, Ovenbird, Scarlet Tanager, Wood Thrush

SNAGS

Photos: © Daniel Cadieux, © Ludo Bogaret, © Ken Janes,

Woodpeckers, and a few other forest birds, excavate nesting cavities in standing dead and decaying trees known as snags. Many can excavate in live trees with sections of dead or dying wood. Many other wildlife species (including bats, flying squirrels, wood ducks, and small mammals) use the cavities in subsequent years. Snags are also often riddled with bark- and wood-boring beetles, an important food source for forest woodpeckers.

Black-backed Woodpecker, Boreal Chickadee, Northern Flicker, Yellow-bellied sapsucker

Pileated Woodpeckers use larger snags to make large cavities that are used by many other species over time.

DOWNED WOOD

© Sarah Ellis, © Brandon Haist, © Maine Natural Areas Program

Dead wood (logs and branches on the forest floor) provides perching, hiding and drumming places for birds. Dead wood is a source of insects for birds and other wildlife, and also holds soil in place and replenishes soil nutrients as it decomposes.

Canada Warbler, Mourning Warbler, Veery, Wood Thrush

Ruffed Grouse drum on dead logs on the forest floor to attract mates in the spring.

LEAF LITTER

A rich layer of moist deciduous leaf litter is home to an array of insects that make up a significant source of food for birds and other wildlife. Decomposing litter also recycles nutrients back to forest soils. A broad array of wildlife also uses leaf litter for dens, nests, camouflage, and cover.

American Woodcock, Mourning Warbler, Ovenbird

Ovenbirds create domed nests of leaf litter that are camouflaged on the forest floor.

WATER

Forests near wetlands, streams, rivers, ponds, lakes, and coastal waters support high concentrations of forest birds and other wildlife including salamanders, frogs, beaver, mink, and otter, as well as tree-nesting waterfowl, large raptors, upland mammals, and bats. In more heavily developed landscapes, these forests often form the core of larger forest blocks and provide a network of travel corridors that are critical to wildlife.

American Woodcock, Canada Warbler, Northern Flicker, Northern Parula, Veery, Wood Thrush

Vernal pools, or seasonal forest wetlands, provide food for wildlife as well as nutrients for forest soils.

NATIVE BIODIVERSITY

Introduced exotic species can affect native plant and animal communities by outgrowing and outcompeting natives, reducing insect and plant diversity, depleting food sources for wildlife, and altering habitat. Invasive species may severely affect the numbers and types of forest trees that survive and thrive in our state. To learn more about invasive identification, visit the Maine Forest Service and the Maine Natural Areas Program (www.maine.gov).

Invasive pests like emerald ash borers have recently entered Maine and can devastate ash populations statewide.

Invasive shrubs like glossy buckthorn (*Frangula ulnus*) impede native tree regeneration without benefit to birds.

What's In Your Woodland?

Ever wonder how a bird sees a forest? Here's a quick and easy way to recognize the habitat features that are important for birds (and other wildlife as well). Having an idea of what habitat features you have (or don't have) in your woods will help start the conversation between you and your forester or other land management professional about your vision for the future of your woods. This "assessment tool" uses your two hands, so is always accessible in the field! Each of your fingers represents a different habitat feature. We suggest looking for each feature in multiple places throughout your woods to get a general idea of conditions across the property. Each time you do an assessment, stand in one place, turn around, and look as far as you can see to note current conditions. You can also make notes of the features you see as you walk through your woods. The FFMB website (maineaudubon.org/ffmb) has more information, including a worksheet you can use to record your results. So check out the picture below, and get ready to take your "handy" assessment tool out to the woods for a bird's eye view!

1 Gaps Can you find small openings (from 100' x 100' up to 2 acres) in the forest overstory? How many, and how big are they?

Cover For each layer, what are the dominant tree species? When you look up through each layer, does it have high cover (leaves block out >70% of the sky) or low cover (leaves block out <30% of the sky) or medium cover (in between)?

2 Overstory (>30')
3 Midstory (6'–30')
4 Understory (1–6')

5 Water As you walk through the stand, note the presence of any streams, ponds or wetland areas, including vernal (or seasonal) pools.

Ask Your Forester...

to do a more in-depth assessment of the habitat features in your woods. Your forester can use this information to develop a plan of management activities that will:

- Create a mix of the three vegetation layers over space and time in order to provide habitat for priority bird species (and other wildlife), and produce healthy forest growth.
- Create small gaps (less than two acres) in the canopy, strategically placed near the edges of larger forest blocks.
- Retain as many standing snags and cavity trees as possible, where safe to do so. The bigger the snag, the better!
- Leave some broken tree tops, limbs and large fallen logs on the ground, including after timber harvests.
- Keep trees with big healthy crowns to promote thick leaf litter on the ground.
- Maintain high canopy cover in buffer areas around water bodies, preferably going beyond minimum state standards.

7 Snags Count the number of dead or dying trees over 6' tall. Do you have more than one or two? Are any larger than 12" in diameter?

6 Tree Size/Age Are your woods dominated by older/larger trees, younger/smaller trees, or ones in between?

8 Large Downed Wood
Look on the ground for logs or large branches over 6" in diameter and over 4' long, and standing snags less than 6' tall. Do you have many, or just a few?

9 Small Downed Wood
Look on the ground for tops of trees or piles of twigs or small branches. How many piles can you find?

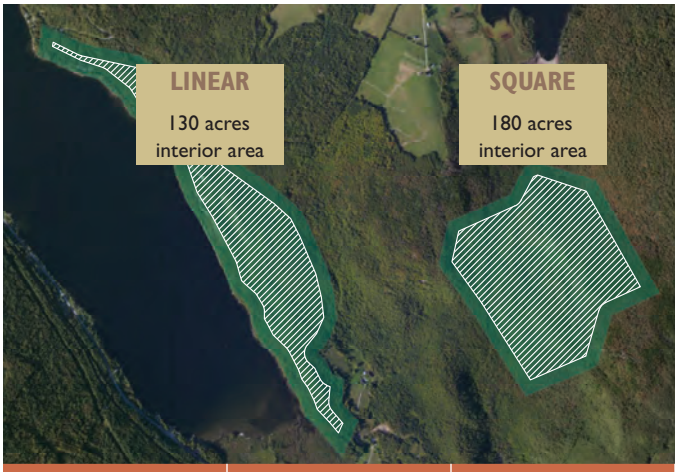
10 Leaf Litter In hardwood stands, estimate the thickness of the dead leaf layer as adequate (over 1.5") or inadequate (less than 1.5").

- Identify invasive plants, and apply appropriate control measures, including washing equipment to reduce the spread of invasive species.
- Use Best Management Practices (BMPs) to protect water quality by limiting soil compaction and erosion from roads and trails, including those used for timber harvesting and other heavy equipment.
- Encourage native tree and shrub species desirable for wildlife, including those that will thrive in a changing climate.
- Work with loggers who are familiar with FFMB techniques and understand the way you want your woods to look after harvest.

What's Around Your Woodland?

Even though they are small, birds often "think big." Some species, including Wood Thrush, Scarlet Tanager, Ovenbird, and Veery are area-sensitive. Although they use only an acre or two as their nesting territory, the birds consider the landscape around that territory when deciding where to nest. Some birds produce more young when they nest in larger blocks of forest.

The landscape around a woodlot can influence what type of management will benefit birds.



STATISTIC TYPE	LINEAR SHAPE	SQUARE SHAPE
Total Block Area	250 acres	250 acres
Setback from Edge	250 ft	250 ft
Interior Block Area	130 acres	180 acres
Interior Block % of Total Block	52%	72%

Managing for square blocks of forest retains interior forest habitat and reduces the amount of edge.

Northern Parulas make their nests in bunches of bearded lichen, a habitat feature associated with older, undisturbed softwood forests.

FOREST BLOCK SIZE AND SHAPE

The size and shape of a forest block matters to many bird species. Long, thin blocks of forest have less interior forest, and more forest edge, compared to square blocks the same size. Edges have different microclimates and are entry points for invasive species, predators, and nest parasites.

If you have a large enough woodland, maintain larger forest blocks (>250 acres). Talk to a forester about shaping harvest areas to reduce edge effects and maintain interior forest habitat.

DISTRIBUTION OF AGE CLASSES ACROSS THE LANDSCAPE

Maintaining different ages of forest across the landscape is important for providing a broad array of habitat for all wildlife species. Historically, older woods dominated the Maine landscape, with smaller patches of younger trees growing back after natural disturbances such as wind events, pests, or diseases. Older forests have many features that are a focus of FFMB management.

If you do not own thousands of acres, you can still use your woodland to balance the landscape around you. Use a tool such as Google Earth to look at the land around your property. If your woodland is surrounded by mature forest, consider light management that keeps your forest intact and maintains large forest blocks. If you are near the edge of a larger forest block, consider creating small gaps to regenerate young forest. While you cannot control what's beyond your property, you may be able to talk to neighbors and coordinate activities. More formal and detailed landscape assessment tools are part of the FFMB Forester Guidebook (maineaudubon.org/ffmb).

Talk to your forester about the woods around your property and about ways you might be able to provide habitat features not common in the surrounding landscape. FFMB guidance is for 50% or more of the landscape in older forest in the 2,500 acres around a stand or a property.

Next Steps

Family woodland owners like you can help provide the habitat features birds and other wildlife need to survive and reproduce long into the future. After reading through this guide, we hope you are excited to manage your woodland "with birds in mind." Here are a few next steps to help you get there.

GET TO KNOW YOUR WOODLAND.

Go outside and see your woodland from a bird's perspective. Is it "messy," with lots of logs and branches scattered on the ground? Are there abundant snags? Are there occasional gaps in the canopy? Can you find three layers of vegetation? Do you see any invasive plants or evidence of disease? Looking at an aerial photo, is your woodland part of a larger forest block? Does it provide a forest type that is lacking in the surrounding landscape?

TALK TO A FORESTER.

Start with your local Maine Forest Service District Forester (call 207-287-8430, e-mail forestinfo@maine.gov, or visit the maineforestservice.gov website). District Foresters can walk your woodland with you and help you make informed decisions about your land. District Foresters can refer you to a list of private consultants who provide woodland-related services such as writing forest management plans and overseeing timber harvests. You can also find professionals who have been to an FFMB workshop on the FFMB website (maineaudubon.org/ffmb).

SET YOUR OBJECTIVES AND MAKE A PLAN.

Your long-term goals should guide the creation of any management plan. Your goals may include recreation, wildlife, or aesthetics as well as timber values. Sharing your goals along with your habitat assessment with a forester is a good way to start developing a management plan.

SHARE YOUR PLAN AND YOUR KNOWLEDGE OF FFMB.

While managing "with birds in mind" on your property is a great way for you to contribute to bird conservation, helping to spread the word to friends and neighbors will make an even bigger difference. Point interested friends and neighbors to the FFMB website (maineaudubon.org/ffmb). They can attend a landowner workshop or visit a demonstration forest where FFMB management has taken place. By sharing your knowledge of FFMB with others, you will help increase the acreage of quality forest habitat for birds and other wildlife in Maine.

The best way to learn about your woodland is to get outside and look around at habitat features.

Foresters are key to helping you move forward with forest planning and management.

While birds are the focus of FFMB activities, many other wildlife species, including red-backed salamanders (left) and American martens (above), can benefit from FFMB management.

Resources

FOR MORE INFORMATION ABOUT MANAGING YOUR WOODLAND "WITH BIRDS IN MIND"

Additional Forestry for Maine Birds resources can be found at maineaudubon.org/ffmb, including information about upcoming FFMB workshops and events, additional FFMB resources like the Forester's Guidebook, a list of foresters who have taken FFMB workshops, and worksheets that go with the habitat assessment outlined in this guide.

The Maine Forest Service home page (maineforestservice.gov) has links for finding your local District Forester, more information on invasive species, and the Forest Trees of Maine guide. Be sure to also check the "Woodland Owners" page for many more excellent resources, including links to the Woods Wise Incentive Program, which promotes woodland stewardship across Maine.

The USDA Natural Resources Conservation Service in Maine also has several assistance programs for landowners. These programs change from year to year, but typically include assistance for wildlife-related management activities. Visit www.nrcs.usda.gov for more information or call the NRCS state office in Bangor at 207-991-9100.

About Forestry for Maine Birds

FFMB began in 2014 as a collaborative effort of Maine Audubon, the Forest Stewards Guild, the Maine Forest Service, and the Maine Department of Inland Fisheries and Wildlife. Expertise and financial support was provided by Northern Forest Conservation Services, Forest Synthesis, and the Maine Outdoor Heritage Fund. The program was adapted from Vermont's "Foresters for the Birds" program, developed by Audubon Vermont and the Vermont Department of Forests, Parks, and Recreation.

Maine Audubon

Forest Stewards Guild
putting the forest first

maine Department of Agriculture Conservation & Forestry
FOREST SERVICE

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DEPT. OF INLAND FISHERIES AND WILDLIFE

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