



LOPPAINE MINNIS

FORESTERS FOR THE BIRDS



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Northeastern forests are a hot spot for migrating songbirds. According to Steve Hagenbuch, conservation biologist with Audubon Vermont, the Northeast and upper Midwest support some of the highest species richness of birds during the breeding season of anywhere in the contiguous US.

Landowner concern for wildlife is vitally important for birds in the Northeast. As much as 80 percent of the forest land in the Northeast is privately owned, according to the USDA Natural Resources Conservation Service, and the priorities of private landowners have a strong influence over how forests in the region are managed. When it comes to actively managing their property, many landowners prioritize aesthetics, privacy, and wildlife habitat over timber harvesting, says Hagenbuch. “Forest products are way down on the list.”

Mike Lynch, Lake States Region Director for the Forest Stewards Guild explains that insects drive bird migrations. “Northern deciduous forests produce green caterpillars that are an easy abundant food source, extremely important for breeding birds in the area.”

But bird populations in the US are in a state of widespread decline. A 2019 study by Cornell University ornithologist, Kenneth Rosenberg and others published in *Science* reported nearly 3 billion birds – or 30 percent – were lost between 1970 and 2017. It was not just rare or endangered species that were impacted. Rosenberg notes, “Perhaps the most surprising result was that half of the total net loss was made up of 10 very common and widespread species.”

To better support all kinds of bird populations, there needs to be a greater focus on the range of threats to all species. According to Rosenberg, “We really need to reimagine what bird conservation is going to look like in the 21st century.”

In the Northeast – and around the country – some foresters think one answer might be adjusting their approach to silviculture by keeping birds in mind.

Background

The Foresters for the Birds program began out of a partnership between Vermont Audubon and the Vermont Department of Parks, Forests and Recreation in the early 2000s. Initial efforts focused on private landowners to determine their perspectives on forest management. “A lot of landowners were not interested in active management,” says Hagenbuch, “but we could talk to them about managing for habitat, and it completely does a 180 on someone’s opinion.”

With funding from the USDA Forest Service State and Private Forestry program, the Foresters for the Birds program expanded into a series of workshops for consulting foresters and public land managers. Over 120 foresters received formal training about forest management approaches that support bird populations in Vermont.

At the same time, Audubon staff learned from workshop

attendees about the best ways to combine silviculture with habitat preservation. The outcome was a series of three handbooks designed to fit in a forester’s pocket that could act as an easy reference during inventories, assessments, and silvicultural planning.

These include *A Forest Bird Habitat Assessment Guide*, which helps foresters understand how timber cruise data is relevant to forest birds and offers suggestions for additional features to take note of. For example, the guide recommends noting the distribution of understory vegetation – patchy or uniform and in the mid-story, evaluating the density of all vegetation, not just commercial species.

Secondly, *Silviculture with Birds in Mind* provides some specifics about how forest management activities can support bird populations. For each of three hypothetical stands, it offers two different silvicultural options that would meet timber objectives while also expanding bird habitat.

Finally, *Birds with Silviculture in Mind* is described as “a concentrated dose of bird-by-bird information,” detailing habitat requirements for 12 birds identified as Vermont’s “Birder’s Dozen.” These 12 species collectively use a wide range of forest types in northeastern forests and are relatively easy to identify by sight or sound. They are a subset of 40 species recognized as high conservation priorities by Audubon, either because of their dependence on northeastern forests or because their populations are decreasing over the long term.

The focus is largely on common birds – many of which have experienced significant population declines in recent decades. Despite lower numbers, common species are still more likely to be spotted in the woods and to respond to habitat management. This can create a positive feedback loop for landowners and forestry professionals. “It is really rewarding when you actually see – or more often hear – the species that you are managing for in a forest,” says Mike Lynch from the Forest Stewards Guild. Managers build on these types of successes to develop continued involvement in the Foresters for the Birds program.

Managing for the Birds

Based on the format of Vermont Audubon’s Foresters for the Birds program, similar programs have been created in several northeastern and midwestern states, with new programs as far afield as Oregon and the Carolinas. Mike Lynch has helped with Foresters for the Birds in Minnesota and Michigan. He notes the approach “targets a growing audience that is interested in a different reason for owning forest land.”

Like Vermont’s program, the Midwest programs generally focus on a “train the trainers” method, working with consulting foresters and public land managers. Workshops, exercises, and educational sessions offer training on how to integrate habitat management with silvicultural treatments.

Lynch adds that with Foresters for the Birds, the forest management practices are not too different from traditional silviculture. “We talk about tweaks to management practices, rather than large changes.” He adds, “We make sure that it is

Opposite page, clockwise from top left: black-throated blue warbler; Blackburnian warbler

work that foresters and loggers can get marked, logged, and sold with some efficiency.”

While Lynch has worked with professionals at every level of the forest products industry, he notes that “loggers are the people that really make this happen.” They are the individuals who implement forest plans and ensure that post-treatment conditions offer nesting and foraging opportunities for birds.

Vermont’s *Silviculture with Birds in Mind* handbook makes several suggestions for incorporating bird habitat considerations into silvicultural prescriptions. First off, a diversity of native species is important for forest regeneration and health, and for birds that preferentially choose certain species for nesting or foraging.

For example, birds like the black-throated green warbler and blue-headed vireo favor softwood inclusions in hardwood forests. Many insect-eating birds favor yellow birch branches. Soft mast species like black cherry, serviceberry, and apple produce food sources in late summer and help birds prepare for migration.

The handbook recommends management practices that support a complex horizontal structure, with a variety of patches in different age classes. A complex vertical structure is also important in older stands, particularly patches of very dense native shrubs in the understory to provide nesting habitat for species like the blue-throated warbler.

Older stands should support a mostly closed canopy with small gap openings throughout, which mimic single- or few-tree disturbances, and provide opportunity for regenerating shade-tolerant species in the understory.

It is important to retain some snags and large-diameter trees (24 inches or more DBH) to provide nest sites for cavity-nesting species like the yellow-bellied sapsucker. In the understory, dead woody material, including logs and brush piles, provides valuable

nesting and foraging habitat for a variety of bird species.

A well-developed, damp litter layer is preferred by species like ovenbirds for building ground nests, and by wood thrushes that feed on bugs from the forest floor. These species are also sensitive to roads, which can create barriers to movement. The handbook recommends keeping roads, and skid trails less than 20 feet wide.

Timing of forest operations is a key consideration, with winter operations creating less disturbance. This is not only because songbirds are in their southern range during the winter, but also because frozen conditions protect understory layers, leaf litter, forest floor topography, and woody debris. Outside of winter, operations should be timed to avoid peak breeding season, generally from May 15 to August 15.

According to Steve Hagenbuch from Audubon Vermont, “It’s not extra work for loggers. If anything, it reduces work for them.” For example, loggers can leave snags and coarse woody debris in place. “Basically, we ask the loggers to leave the woods messy,” he says. Loggers can leave brush in the woods, and they don’t have to lop tops off or cut brush down for aesthetic purposes.

The flip side is that loggers sometimes have a concern that the appearance of these projects makes them look careless or as if they didn’t finish the job. Although it might look great to birds, people don’t always see things the same way. In part to address this problem, organizations like Audubon and the Forest

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COURTESY OF AUDUBON VERMONT

Vermont Birder's Dozen:

- American woodcock
- Black-throated blue warbler
- Black-throated green warbler
- Blue-headed vireo
- Canada warbler
- Chestnut-sided warbler
- Eastern wood-peewee
- Scarlet tanager
- Veery
- White-throated sparrow
- Wood thrush
- Yellow-bellied sapsucker

Down woody material intentionally retained during timber harvest at the Northwest Solid Waste District Forest in East Highgate, VT.

Stewards Guild work to educate landowners and the public about the benefits of the Foresters for the Birds approach to silviculture. When the public is aware that the brush and debris are important for wildlife, they are less concerned about the untidy appearance.

Results

Overall, Foresters for the Birds programs have been well-received, and continue to expand. However, it has been difficult to objectively track the programs' success for several reasons. Since migrating birds cover such a large geographic area over the course of a year, it can be difficult to attribute population changes – increases or decreases – to land management practices in any one area.

Mike Lynch notes, "The greatest threats to some migrating birds may actually be in their southern habitats." However, he is hopeful that habitat preservation in the northern US will result in stronger bird populations overall. "The more birds we send south, the better off they will be," says Lynch. He adds that among forest landowners "reception has been positive overall," with more landowners and foresters becoming involved each year.

Vermont Audubon's demonstration forest sites offer some data about how birds respond to specific treatments, where foresters conduct bird surveys, then a treatment, then re-survey. This can help Audubon draw some conclusions about how treatments work and inform future forest management plans. Steve Hagenbuch says, however, that the data should be used with caution and it's hard to say how bird populations have responded to specific treatments in their region. "We know population trends, but to ascribe these to specific programs is dangerous."

Vermont Audubon and New York Audubon are working on an endorsement program that will help keep track of the extent to which Foresters for the Birds programs are being implemented. Through a series of classes and exercises, foresters can become endorsed on the Foresters for the Birds approach. To keep up their endorsement, foresters will annually report the number of Foresters for the Birds plans they create each year and the number of acres included in the plans.

Bird-Friendly Maple

Audubon Vermont started a bird-friendly maple program in 2015 to engage the maple industry in the protection of songbird habitat, building on the positive reception to the Foresters for the Birds program. Currently, 75 Vermont maple producers are formally enrolled in this program, including operations with as few as 400 taps or as many as 200,000.

The maple program encourages maple producers to think about bird habitat in their forests by taking steps like managing for complexity – not just for sugar maples – and maintaining healthy understory vegetation rather than clearing it out.

The program involves a site visit from Audubon staff who do an inventory and site assessment and develop a report with suggestions on how to better support bird populations. The landowner then creates a management plan addressing habitat



MIKE LYNCH

Silviculture and forest management practices that keep birds in mind provide nesting habitat for a variety of species.

needs. One bonus for the landowner is they can use bird-friendly maple labels and marketing materials, which can provide a market advantage.

Like the Foresters for the Birds program, the bird-friendly maple program has expanded into other states like New York and Maine, with many other states also developing their own programs.

Healthy Forests and Healthy Birds

Although silviculture alone cannot address all the threats facing migrating songbirds, it can play an important role. After all, many bird species depend on some form of disturbance, and, according to Rosenberg, "We know silviculture can produce these desired conditions." One of the biggest threats to bird habitat in the Northeast is land use conversion. In Vermont, more than 14,000 acres of forest are converted to non-forest land use each year, according to the Forest Service. The Foresters for the Birds approach can't help after the forest has been converted to residential or commercial development.

Foresters for the Birds is one way that landowners can find value in keeping their land forested. While many forest landowners are happy to manage their land for timber, others are not. A subset seems to be more interested in providing habitat – and perhaps harvesting some timber too – when the result is better for wildlife on their land.

Hagenbuch says that previously for some landowners, active management simply meant somebody making money off their forest, which was not always appealing. "Now they think active management is about the overall health of the forest, and everybody wants that."

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