

Bird-friendly Forest Management Recommendations

Vermont's forests are globally significant because of the high diversity of forest birds that breed here. Audubon Vermont's Forest Bird Initiative is working with landowners and foresters to protect a suite of forest birds called "responsibility birds" that use a wide variety of forest types and conditions and are characteristic of our region; some have up to 80% of their global breeding populations in our region, and some are experiencing long-term population declines. These general management recommendations can guide the integration of bird habitat protection and enhancement in your woods. We recommend working with a consulting forester when planning or implementing forest management. The right management for your woods depends on property and landscape conditions and your goals.

- ✓ **Enhance vertical structure in mature forest stands.** Different birds specialize in using different canopy layers for nesting and foraging, so a forest with complex vertical structure, including a dense understory, midstory and upper canopy layer is best.
- ✓ **Maintain a generally closed canopy** (70-80% cover) in older stands to optimize habitat for mature forest nesting birds like black-throated green warbler and wood thrush, but also allow for some patches of understory regeneration in small canopy gaps.
- ✓ **Maintain/enhance native tree species diversity.** Trees with special value to birds include yellow birch (preferred foraging tree for leaf-gleaners), aspen and paper birch (preferred nest trees for yellow-bellied sapsucker), and soft mast species such as serviceberry, cherries and apple trees.
- ✓ **Maintain softwood pockets** in hardwood stands to attract species including blue-headed vireo and blackburnian warbler.
- ✓ **Retain/recruit large trees** (24+” dbh) to provide nest sites for woodland raptors, pileated woodpeckers and owls and high quality habitat for ovenbirds and wood thrush.
- ✓ **Retain/recruit snags and cavity trees** to offer potential nest sites for yellow-bellied sapsuckers and other cavity-nesting birds. During future breeding seasons, secondary cavity-users such as nuthatches and owls may use their nest holes. Snags also host insects for birds to eat and provide singing and foraging perches.
- ✓ **Retain/recruit logs on the ground** to provide perches for singing and courtship displays (e.g. ruffed grouse drumming). Leave the poorest quality cut logs on site.

- ✓ **Retain/recruit brush piles and downed tree tops** as nesting and foraging sites and cover from predators. Aggregate brush and don't lop tops during harvest any more than required for safety.
- ✓ **Protect streams and riparian areas.** When appropriately protected, these areas provide habitat for species like Louisiana waterthrush and American redstart.
- ✓ **Protect wetlands.** Seeps, swamps and beaver complexes provide habitat for Canada warbler, white-throated sparrow, and veery.
- ✓ **Protect deciduous leaf litter** by maintaining shade. A thick, moist layer is home to insects and other invertebrates that birds eat. Ovenbirds nest and forage there.
- ✓ **Monitor and control invasive plants.** Non-native, invasive plants such as bush honeysuckle, glossy buckthorn, and Japanese barberry out-compete native trees and shrubs and provide poor -quality food and habitat for birds.
- ✓ **Maintain/enhance horizontal diversity at the landscape level.** A landscape (2,500 acres) with wetlands and streams can support a wide diversity of forest birds if a variety of forest habitats and ages are provided.
- ✓ **Young forest habitat** (1+ acre patches of forest roughly 3-15 years of age) is an important landscape component for young-forest nesters like chestnut-sided warblers and mature forest birds that feast on soft mast there as they prepare for fall migration. Aim to have 3-5% of a 2,500 acre forested landscape in this condition at any given time.
- ✓ **Protect interior forest conditions by minimizing linear openings, maintaining canopy cover over roads, and softening edges between habitat types.** Interior forest conditions enhance survival and breeding success for many birds. Brushy field edges are an example of a soft edge; they provide a visual buffer that protects interior forest birds from predators and brood parasites.
- ✓ **Limit management activities May-August** to minimize negative impacts on breeding birds when possible.