

## HABITAT FEATURES: WHICH BIRDS USE THEM AND WHY



**SNAGS** Woodpeckers excavate nesting cavities in snags or 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 riddled with bark- and wood-boring beetles, an important food source for wildlife. *Northern Flicker, Yellow-bellied Sapsucker, Black-backed Woodpecker, Boreal Chickadee*



**DOWNED WOOD** Dead wood (logs and branches on the forest floor) provides perching, hiding, and drumming places for birds. Decaying wood is a source of insects for birds and other wildlife to eat, holds soil in place, and replenishes soil nutrients as it decomposes. *Canada Warbler, Mourning Warbler, Veery, Wood Thrush*



**LEAF LITTER** A rich layer of moist deciduous leaf litter is home to an array of insects that are a significant source of food for birds and other wildlife. Decomposing litter also recycles nutrients back to forest soils. Many different kinds of wildlife use leaf litter for dens, nests, camouflage, and cover. *American Woodcock, Mourning Warbler, Ovenbird*

**VEGETATION LAYERS AND COVER** A variety of canopy layers, from the shortest understory regeneration to the tallest super-canopy tree, provides multiple places to nest, material for nest building, cover to hide from predators, as well as food (fruit, buds, insects, etc.) for forest birds.



**OVERSTORY** (>30')  
*Scarlet Tanager*



**MIDSTORY** (6–30')  
*Wood Thrush*



**UNDERSTORY** (1–6')  
*Chestnut-sided Warbler*



**TREE SIZE** Many forest birds prefer certain sizes of trees for feeding, nesting, and resting. Older forests with overall larger trees usually have multiple layers of vegetation that support many species and breeding pairs. *Northern Parula, Bay-breasted Warbler, Boreal Chickadee, Black-backed Woodpecker*



**SOFTWOOD INCLUSIONS** Pockets of softwood in a mix of hardwood trees provide an additional layer of habitat structure, especially for birds that are looking for a mix of hard and softwood species. *Black-throated Green Warbler, Blackburnian Warbler, Canada Warbler*



**CANOPY GAPS** Openings in the canopy from one-quarter acre (roughly 100' x 100') to two acres (roughly 300' x 300') create good conditions for regeneration. The shrubby growth in these gaps is home to abundant insects, and several bird species are adapted to feed in these openings, or to nest in the dense regeneration they create. *Chestnut-sided Warbler, Eastern Wood-Pewee, Olive-sided Flycatcher*



**SHORELAND (RIPARIAN) AND WETLAND FORESTS** Forests along streams, rivers, ponds and lakes have high concentrations of wildlife. More than 80% of Maine's wildlife species use these areas at some point in their life cycle. These forests also provide travel corridors for moving wildlife, and can provide the nucleus of large forest blocks that are critically important for species needing interior forest habitat. *American Woodcock, Canada Warbler, Northern Parula, Veery*



**NATIVE BIODIVERSITY** Introduced exotic plants reduce native biodiversity and can reduce the availability of food sources that birds, especially migrants, rely on. Exotic pests invading our forests and new diseases can kill tree species that are important to birds and other wildlife.

photo: MNRC



Photos: (left to right, top to bottom): *Scarlet Tanager*, Doug Hitchcox; *Ovenbird*, Peter Caulfield; *Wood Thrush*, Fyn Kynd; *Northern Flicker*, Scott Knecht; *Chestnut-sided Warbler*, Frode Jacobsen; *Mourning Warbler*, Tom Benson; *Veery*, Bill Benish; *Yellow-bellied Sapsucker*, Richard Fournier; *American Woodcock*, Fyn Kynd; *Eastern Wood-Pewee*, Brad Carlson; *Canada Warbler*, Ken Janes; *Black-throated Blue Warbler*, Richard Fournier; *Bay-breasted Warbler*, Laura Gooch; *Northern Parula*, Peter Caulfield; *Black-throated Green Warbler*, Richard Fournier; *Blackburnian Warbler*, Sue Barth; *Magnolia Warbler*, Diane St. Jacques; *Black-backed Woodpecker*, Karen Hooper; *Boreal Chickadee*, Peter Caulfield; *Olive-sided Flycatcher*, Joe Wing

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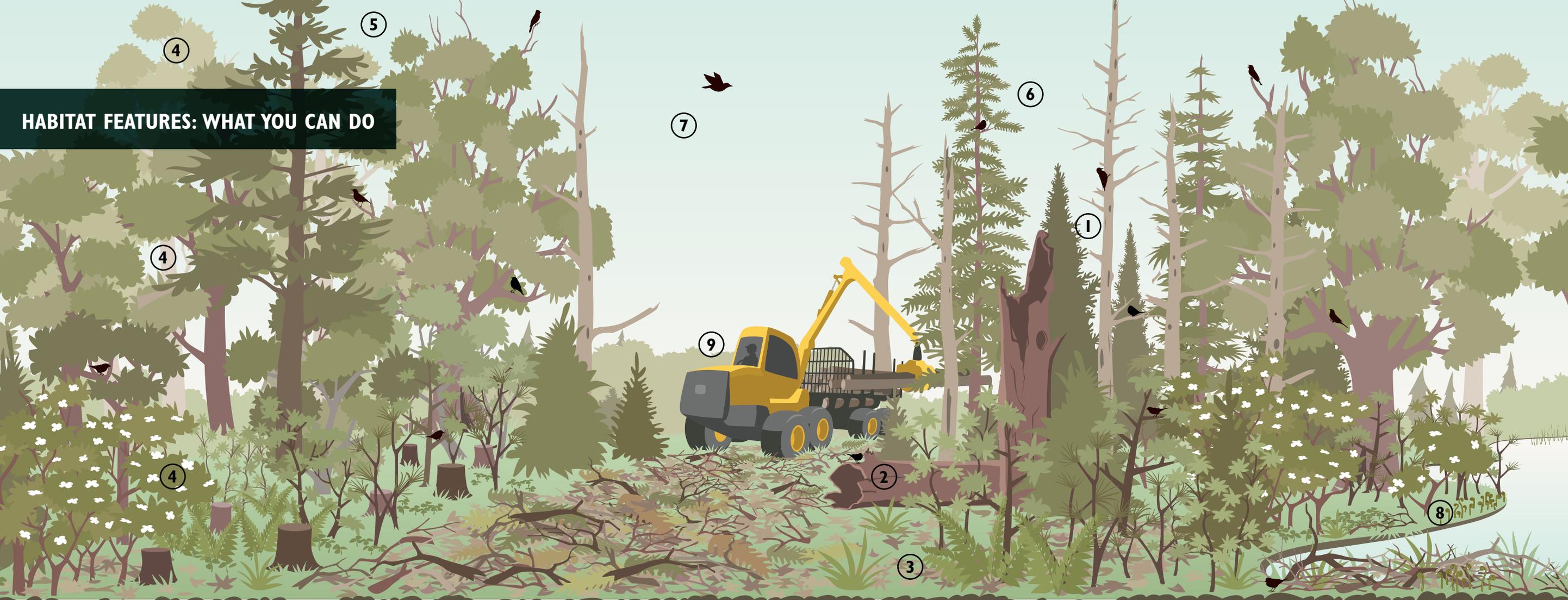


## A Logger's Guide to Forestry for Maine Birds



*Maine loggers make forest management happen. They decide how, where, and when to operate heavy equipment, and ultimately, how the woods will look when the job is done. Loggers, working with foresters, can also help landowners understand how a "messy" forest, with well-distributed slash and safe snags, creates places to nest, eat, and rest for songbirds and other wildlife. Thoughtful logging protects soil and helps ensure a strong and healthy future forest.*





## HABITAT FEATURES: WHAT YOU CAN DO

### 1 SNAGS: THE BIGGER, THE BETTER!

Where operationally SAFE to do so:

- Keep snags and decaying trees
  - Look for large dead limbs and broken tops
  - Retain Aspen and Poplar as preferred species
- Aim for at least 6/acre
- Aim for at least one >18" DBH and at least 3>12" DBH

### 2 DOWNED WOOD: MESSY IS GOOD!

- Communicate with the landowner about the wildlife benefits of a "messy" forest
- Leave tops and low-value logs
- Avoid crushing downed logs
- Haul back or scatter tops and limbs
- Look at snags as future downed wood

### 3 LEAF LITTER

- Retain some healthy hardwood canopy
- Limit risk of introducing invasive earthworms

### 4 COVER

- Promote crown growth in three layers: overstory (>30'), midstory (6–30'), and understory (1–6')
- Consider the leaf cover you're leaving behind in each layer, including regeneration

### 5 TREE SIZE

- Leave some trees of various heights to increase stand structural diversity
- Leave some larger trees as wildlife trees and future high-quality snags

### 6 SOFTWOOD INCLUSIONS

- Retain wind-firm clusters or individual softwoods in hardwood or mixedwood stands and in clearcut or overstory removal situations
- Manage canopy to maintain deep softwood crowns and good regeneration

### 7 CANOPY GAPS

- Limit total gap area to <20% of stand area in any 20-year period
- Create a mosaic of gaps of different sizes (1/4 to 2 acres in size)
- Protect and promote regeneration

### 8 SHORELAND and WETLAND FORESTS

- Apply Maine's Best Management Practices for Water Quality
- Follow the Vernal Pool Habitat Management Guidelines
- Increase buffers where possible to increase benefits to wildlife
- Retain as much canopy cover as possible if harvesting within the buffer area
- Prevent ruts, especially in riparian buffers

### 9 INVASIVE SPECIES CONTROLS

- Learn to identify invasive plants and insects and their signs
- Share information about invasive species with landowners
- Work with a forester to determine the best outcome for a stand
- Pressure-wash equipment before moving between jobs