

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

SD356
15
NY

204-100

✓



United States
Department of
Agriculture

Forest Service

Northeastern
Station

NE-INF-63-85

Managing Urban Woodlands for a Variety of Birds

Nancy G. Tilghman



WOODLANDS
2000
2000

Managing Urban Woodlands for a Variety of Birds //

by Nancy G. Tilghman

Birdwatching is an important educational and recreational activity that can provide urban dwellers with a necessary link to the natural world. Between 3 million and 5 million people in the U.S. enjoy birdwatching, and a large proportion of these people live in metropolitan areas. Many people enjoy watching birds in their backyards or at feeders. But an even more rewarding experience can be found by looking for birds in their natural habitats. Remnant patches of woods provide urban dwellers with the opportunity to observe a wide variety of bird life without having to travel outside the city. Most of these urban woodlands are publicly owned and managed by the local parks department or conservation commission. What can these caretakers of our urban natural areas do to promote utilization of these woodlands by a wide variety of birds and thus provide a quality birdwatching experience for people living in the city?



Habitat Preferences

Each bird species has its own unique set of preferences for both breeding and wintering habitat. These habitat preferences ensure that the area will meet the food, cover, and nesting season requirements of the species and thus provide a better chance for survival and successful reproduction. Some species may seek only coniferous or deciduous cover and may even prefer this vegetation at a certain height. For example, chipping sparrows usually nest in the lower branches of coniferous trees or shrubs, while northern orioles usually nest high in the canopy of a deciduous tree. Some of the major habitat requirements of forest birds are listed below, with examples of the kinds of species that might prefer urban woodlands with these microhabitats or characteristics.

Cavities

In order to have woodpeckers (such as pileated, downy, and hairy) and black-capped chickadees nesting in these woodlands, there must be dead or dying trees in which they can excavate their nesting cavities. Natural cavities or old woodpecker holes are needed for nesting sites by screech owls, barred owls, great crested flycatchers, tree swallows, white-breasted nuthatches, house wrens, and eastern bluebirds. Starlings and house sparrows also nest in natural cavities and can displace some of these cavity-nesters if the trees are close to buildings.

Large woods

Some birds inhabit only large wooded areas and are not found in small patches of woods. Broad-winged hawks, pileated woodpeckers, brown creepers, winter wrens, veeries, Canada warblers, ovenbirds, and scarlet tanagers are very sensitive to disturbance from surrounding urban areas and require larger urban woodlands before they will thrive within the city. A 60-acre woodland is probably the minimum size necessary to attract the most size-sensitive forest bird species to an urban area.

Scattered openings or edge

Other species prefer small openings within the woods or nests along the edges of woods. Willow and alder flycatchers, gray catbirds, northern mockingbirds, eastern bluebirds, cedar waxwings, blue-winged warblers, yellow warblers, chestnut-sided warblers, common yellowthroats, indigo buntings, rufous-sided towhees, field sparrows, song sparrows, and American goldfinches are all species that require either shrubby openings or live at woodland edges.



Wetlands

Other birds are found only in woods with water nearby. These species build their nests in the dense vegetation that surrounds wetland areas, or they find abundant food resources there. For example, swamp sparrows and red-winged blackbirds find suitable nest sites in the shrub thickets or cattails that grow in and around wetland areas. Green-backed herons and belted kingfishers depend on streams or ponds as a source of food. Without wetland areas, these species would probably not exist within the city. Other species, though not totally dependent on wetlands for food or nest sites, are more common when such areas are present (e.g., common yellowthroats).



Buildings

Of course, some birds thrive in the city and even prefer man-made structures such as building eaves, roofs, or chimneys for nest sites. No special management of woodlands is required for these species since their preferred nest sites usually abound in neighborhoods adjacent to the woods. An urban land manager must be aware of their nesting preferences, however, and recognize that old buildings or sheds left within a wooded area will encourage these species, often at the expense of the woodland-nesting species. House sparrows and starlings are examples of especially aggressive species associated with buildings. As their numbers increase, they compete with cavity-nesters for natural nest sites and with seed-eating and insect-eating birds for food. In the winter, they can be especially aggressive around bird feeders in backyards of neighborhoods adjacent to the woods.

What Can You Do as an Urban Land Manager?

As a manager of urban park lands or conservation commission properties, you have many opportunities to create or improve wildlife habitats within the city. Some of these opportunities arise when the land is acquired and others can be part of your ongoing management activities. Some recommendations for managing the forested portions of urban parks and natural areas for a wide variety of birdlife include:

- When purchasing public land, select a few large woodlands (at least 60 acres) rather than many small woodlands. Large woodlands will be more likely to support many different species of birds. The bird communities found in these areas will be representative of natural bird life found in forests outside the city.

- Another feature to consider when purchasing land for parks or natural areas is the presence of water. Streams or ponds within the woods can enhance both the variety of birds and their abundance. Wherever possible, allow natural wetland vegetation to develop along the margin of these areas to improve nesting and feeding habitats.



- Maintain a natural understory in the woods. A portion of a park may be designated as a picnic area or a playground where the understory will usually be eliminated and replaced by a grassy lawn, perhaps with a few shrubs for landscaping. In the remainder of the park, however, try to refrain from the "clean farming" ethic and let the understory go wild. The natural layers of herbs, shrubs, and saplings beneath a canopy of trees will supply a wide spectrum of nesting and feeding opportunities for a variety of birds.
- In larger woodlands, try to maintain a few scattered openings or small fields for birds that find food there or like to nest along forest-field edges.

- Small patches of hemlocks and pines within these woods can attract new bird species to the woods. Do not prune the pines! When you eliminate the lower branches on these trees you limit the value of the conifers as cover for wildlife and habitat for certain low-nesting species of birds.
- Try to limit your trail system to a few well-marked paths and encourage people to stay on them. The "wilder," the better when you are trying to encourage wildlife in the city. Highly developed parks will only provide habitat for the kinds of birds and other wildlife commonly found in residential areas throughout the city.
- Keep the number of buildings or shelters in the park to a minimum. These man-made structures attract aggressive, typically urban bird species that often compete with woodland birds for food and nest sites.
- Enjoy the birds yourself! Once you have appreciated the beauty of their color and song, you will be better able to explain your management efforts to the public and encourage their birdwatching pleasure, too.



Prepared by Nancy Tilghman, research wildlife biologist, USDA Forest Service, Forestry Sciences Laboratory, P.O. Box 928, Warren, Pa. 16365.

Copies available from Northeastern Forest Experiment Station, 370 Reed Road, Broomall, Pa. 19008.



Headquarters of the Northeastern Forest Experiment Station are in Broomall, Pa. Field laboratories are maintained at:

- Amherst, Massachusetts, in cooperation with the University of Massachusetts.
 - Berea, Kentucky, in cooperation with Berea College.
 - Burlington, Vermont, in cooperation with the University of Vermont.
 - Delaware, Ohio.
 - Durham, New Hampshire, in cooperation with the University of New Hampshire.
 - Hamden, Connecticut, in cooperation with Yale University.
 - Morgantown, West Virginia, in cooperation with West Virginia University, Morgantown.
 - Orono, Maine, in cooperation with the University of Maine, Orono.
 - Parsons, West Virginia.
 - Princeton, West Virginia.
 - Syracuse, New York, in cooperation with the State University of New York College of Environmental Sciences and Forestry at Syracuse University, Syracuse.
 - University Park, Pennsylvania, in cooperation with the Pennsylvania State University.
 - Warren, Pennsylvania.
-