



No Room at the Inn: Suburban Backyards and Migratory Birds

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You've probably noticed geese flying back and forth in spring and fall, or robins and bluebirds coming back in the spring to make nests around your home or in your birdhouse. Bird migration is one of the greatest phenomena of the natural world, and these birds in your yard are just a snapshot of it. Yearly, billions of birds migrate between breeding grounds in North America and wintering grounds in the Caribbean, Mexico, and Central and South America, and many fly through Indiana during their journey. Some migratory songbirds weigh no more than a few ounces but fly non-stop across oceans to find food in the winter and nesting sites in the summer. During migration, birds depend on suitable habitats to rest and refuel, just as we need to rest and fill up on long hikes or road trips. These

"stopover sites," as they're called, can be compared to full-service hotels providing plenty of food and shelter, convenience stores providing adequate amounts of food and shelter, or fire escapes used primarily in emergency situations for shelter, without adequate food levels.

In Indiana, many of the "hotel" sites for forest and grassland birds have been lost over the last century to agriculture or development—the "inn" is smaller now than it used to be, and room in it is limited. However, urban and suburban parks and backyard trees can function as convenience stores or fire escapes, providing important habitat for migratory birds when hotel stopover sites may be limited. There are several ways to manage your backyard for bird conservation, particularly

through planting trees and native plants. Numerous species migrate through Indiana every spring and fall, and conservation of these beautiful animals will ensure that you and your family can enjoy them for generations to come (Figure 1).



Figure 1. Some migratory songbirds in Indiana. Clockwise from upper left: Scarlet Tanager, Baltimore Oriole, Rose-Breast Grosbeak, and Blackburnian Warbler. Painting courtesy of Jessica Outcalt.

Migration – A Global Phenomenon

Migration occurs all over the world, between North and South America, Europe and Africa, and even the Arctic and Antarctic for a few extreme long-distance migratory birds. Centuries ago, before modern technology allowed us to see where migratory birds went and came from, some ancient Greek philosophers wondered if birds hibernated in holes in the ground or even transformed into other species. However, we now know that migrants can travel extreme distances, enduring dangerous conditions such as storms or predators (Figure 2). In fact, migration is one of the most dangerous times for songbirds, and therefore migratory stopover sites are vitally important for birds' protection and conservation. Most songbirds migrate at night, spending the days feeding or resting in shrubs, trees, or other habitats. Birds depend on insects and fruit for food, and trees for resting spots, during migration, so it is important to set aside areas where they can get these resources.

Where Are the Birds Going?

Ornithologists have long known that migratory bird populations are declining. If we do nothing,

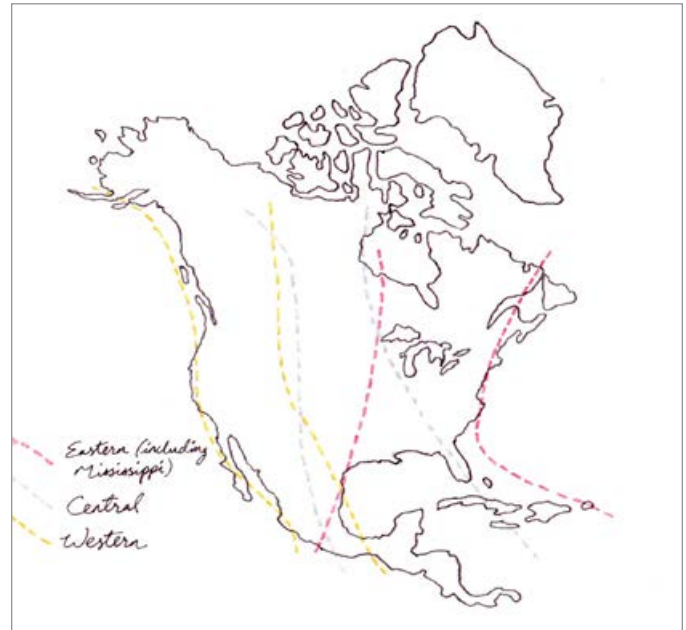


Figure 2. Major migratory pathways, of flyways, of North America. Image courtesy of Jessica Outcalt, derived from La Sorte et al., 2014 (*Journal of Biogeography*).

many species are on the road to endangerment or extinction. A study that Purdue University researchers are currently working on suggests that birds migrating through Indiana are still declining, even over the last decade. To make matters worse, birds' habitat has disappeared in this state. Less than 5 million acres of Indiana's original 23 million acres of forest remain today, according to the Indiana Department of Natural Resources, though this is an increase from a low point of 1.5 million acres in 1900. Many migrating birds need forest patches, however small, to find insects, fruit, and shelter. In fact, many birds will use suburban trees and small city parks as places to snack on insects and berries before continuing on their journey.

Think Like a Bird – Creating Backyards for Migrants

One of the most important aspects of backyard design is the overall structure, because that is what a bird first looks for when it's flying. Try to create several layers within your yard. If you have big trees on your property, that is a good start. Even if you don't have large trees, fill in spaces with smaller trees, shrubs, and grasses. While we might find the typical park layout—big trees with open space in between—visually appealing, birds do not. They want places for shelter, access to water, and a chance to scavenge for berries or insects.

Think like a bird—they just need a few basic things for survival. If you have access to a stream or pond, make that a focal area. It will draw birds in, providing water and insects in the process. If you don't, a birdbath makes a great addition to any yard, as long as you keep it clean so algae doesn't grow. While providing thick cover near feeders and water sources can provide shelter to unwanted predators such as domestic cats, providing water sources in open areas of your yard can attract several species of birds, such as Song Sparrows (Figure 3). Keep domestic cats indoors, as cats are among the biggest sources of mortality for birds.



Figure 4. Yellow-rumped Warbler. Image by Dave Menke, U.S. Fish and Wildlife Service.



Figure 3. Another common backyard bird, the Song Sparrow. Drawing courtesy of Jessica Outcalt.



Figure 5. Indigo Bunting. Image by Jim Hudgins, U.S. Fish and Wildlife Service.

Wildflowers are beautiful and wonderful additions to a backyard, especially in a sunny area. Purple coneflowers, showy goldenrod, or white asters provide nectar for insects, which in turn attracts birds like Eastern Bluebirds, Yellow-rumped Warblers (Figure 4), and Indigo Buntings (Figure 5). American Goldfinches and similar species feed on the seeds of many plants like these as well. Native viburnums, serviceberry, elderberry, and winterberry provide plenty of berries throughout the year for fruit-eating birds, such as Swainson's Thrushes or Cedar Waxwings.

Finally, native trees will attract a great number of birds. The type of yard you have will determine the trees you select. Red oaks, for example, are versatile trees that can grow quickly in almost any size yard. Shagbark hickories, on the other hand, are slow-growers but are attractive to a high number of species. Hemlocks and cedars usually prefer shade, while red maples prefer sun. In general, native plants attract birds in large part because they can provide habitat for a larger abundance and diversity of some types of insects than non-native plants do.

In conclusion, a few simple decisions about your backyard can attract birds of all types. Take your available time and resources into account, ask for advice (see suggested resources below, or visit Purdue Extension at www.extension.purdue.edu), and transform your yard into a beautiful wildlife habitat.

List of Common Migratory Birds in Indiana

Birds of Prey		
Turkey Vulture	Bald Eagle	Red-tailed Hawk
Songbirds and relatives		
Yellow-billed Cuckoo	Veery	Prairie Warbler
Black-billed Cuckoo	Swainson's Thrush	Black-throated Green Warbler
Common Nighthawk	Wood Thrush	Yellow-breasted Chat
Chuck-will's-widow	American Robin	Grasshopper Sparrow
Eastern Whip-poor-will	Gray Catbird	Henslow's Sparrow
Chimney Swift	Brown Thrasher	Chipping Sparrow
Ruby-throated Hummingbird	Cedar Waxwing	Field Sparrow
Yellow-bellied Sapsucker	Ovenbird	Lark Sparrow
Northern Flicker	Worm-eating Warbler	Fox Sparrow
Eastern Wood-pewee	Louisiana Waterthrush	Dark-eyed Junco
Acadian Flycatcher	Northern Waterthrush	White-crowned Sparrow
Willow Flycatcher	Blue-winged Warbler	White-throated Sparrow
Eastern Phoebe	Tennessee Warbler	Vesper Sparrow
Great Crested Flycatcher	Nashville Warbler	Savannah Sparrow
Eastern Kingbird	Kentucky Warbler	Song Sparrow
White-eyed Vireo	Common Yellowthroat	Swamp Sparrow
Yellow-throated Vireo	Hooded Warbler	Eastern Towhee
Warbling Vireo	American Redstart	Summer Tanager
Red-eyed Vireo	Cape May Warbler	Scarlet Tanager
Northern Rough-winged Swallow	Northern Parula	Rose-breasted Grosbeak
Purple Martin	Magnolia Warbler	Blue Grosbeak
Tree Swallow	Bay-breasted Warbler	Indigo Bunting
Barn Swallow	Blackburnian Warbler	Dickcissel
House Wren	Yellow Warbler	Red-winged Blackbird
Blue-gray Gnatcatcher	Chestnut-sided Warbler	Eastern Meadowlark
Golden-crowned Kinglet	Blackpoll Warbler	Baltimore Oriole
Ruby-crowned Kinglet	Yellow-rumped Warbler	
Eastern Bluebird	Yellow-throated Warbler	

Suggested Resources

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