

NEOTROPICAL BIRDS OF WEST VIRGINIA



Blue-winged Warbler

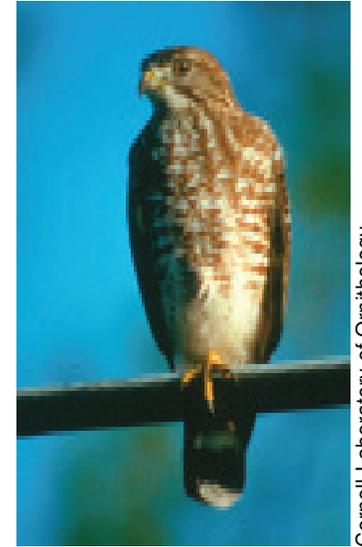
WEST VIRGINIA

DIVISION OF NATURAL RESOURCES
WILDLIFE RESOURCES SECTION

NEOTROPICAL MIGRATORY BIRDS OF WEST VIRGINIA

What are Neotropical Migratory Birds?

Every spring and fall, flocks of migrating birds fill the skies above West Virginia's mountain ranges and river valleys. Most of the birds gliding south over West Virginia continue their flight for hundreds, even thousands of miles before reaching their destinations in Mexico, the Caribbean, and Central or South America. North American breeding birds that spend the winter in the tropics and return to breed are known as neotropical migrants. Neotropical, or "new tropics," refers to the region of Latin American that lies south of the Tropic of Cancer.



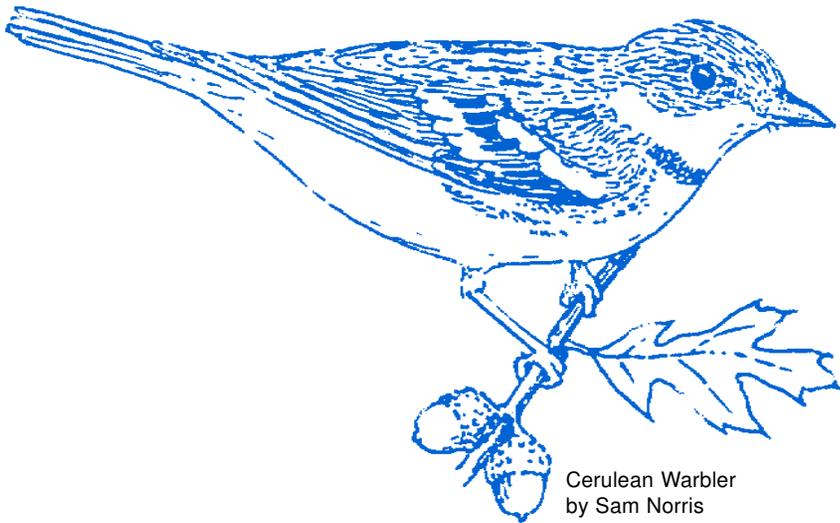
Cornell Laboratory of Ornithology

Broad-winged hawks can be seen migrating by the hundreds over mountain ranges in September.

Which Birds Are Neotropical Migrants?

Not all birds seen in West Virginia are neotropical migrants. Robins, bluebirds and many ducks are examples of temperate migrants that winter north of the tropics. Other birds, such as cardinals and chickadees, are permanent residents; they spend the entire year close to their nesting grounds. Nonetheless, 88

of West Virginia's 171 species of breeding birds migrate annually to the tropics. Most warblers, thrushes, vireos, swallows, tanagers, flycatchers, grosbeaks and sandpipers are neotropical migrants. Some sparrows, blackbirds, raptors (birds of prey) and waterfowl winter in the tropics as well.



Cerulean Warbler
by Sam Norris

WEST VIRGINIA DIVISION OF NATURAL RESOURCES
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Steve Maslowski/USFWS Photo



Black-throated blue warblers nest in the Mountain State.

Front cover photo by Bob and Peter Wood. Back cover photo by Steve Maslowski for the U.S. Fish and Wildlife Service.

Migration

Migration is a strategy used by many birds to escape the congestion and competition of the tropical regions during the breeding season. The temperate latitudes provide more space and food during the summer, while the tropics offer a stable source of food, water and cover in the winter. However, a migration of several hundred miles or more exacts a heavy toll on a bird that may weigh less than an ounce and the rewards of the trip must outweigh the rigors. With unpredictable weather, long water crossings, crowded stopover points, uncertain food supplies and predation, migration can be fatal to up to half of the birds that attempt it.

The annual migration of millions of songbirds is a spectacle unrivaled in nature. Migration timing and routes vary for each species depending on their destination, availability of their preferred food, and their flying strength. Before setting off, birds of one or more species gather to prepare for departure (stage) in an area offering abundant food reserves. When the



Steve Maslowski/USFWS

The bobolink is one of West Virginia's most well travelled migrants, spending winters in Argentina.



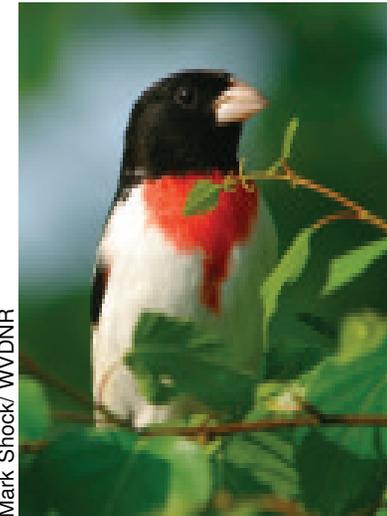
birds are physiologically prepared (having gained up to 50 percent above their normal body weight), and weather conditions are favorable, they begin their journeys. Songbirds travel several hundred miles at a time, landing at strategic stopover points to rest and refuel before continuing their trips that last from a few days to several weeks. Most birds undergo physiological changes during migration, often not eating for several days between stopover periods and becoming more active at night.

The Gulf of Mexico presents a challenging water crossing to most eastern migrant species. Birds prepare for several days on the Gulf Coast (fall) or Yucatan Peninsula in Mexico (spring) before taking off at night, often flying nonstop over the Gulf. If a violent storm or major wind shift occurs on this perilous stretch, thousands of songbirds may never reach their destination.



An aerial view of forest fragmentation.

USFWS Photo



Mark Shock/ WVDNR

Rose-breasted grosbeak populations are declining.

Declining Neotropical Migratory Birds

Declines in many eastern migrants, including the yellow-billed cuckoo, wood thrush, olive-sided flycatcher, golden-winged warbler, cerulean warbler and rose-breasted grosbeak have recently been detected by the North American Breeding Bird

Survey which has been censusing birds annually since 1966. What is most alarming is that declines in many birds such as the bay-breasted warbler and Tennessee warbler have become much more severe since 1982. The situation is even bleaker for Bachman's warbler and the black-capped vireo which appear to be heading toward extinction.

West Virginia, with its vast forests and relatively sparse human population, has been a bright spot for many neotropical migrant species. Indeed, the Mountain State has seen lower rates of decline in many species than any other eastern state. For one species, the wood thrush, West Virginia is one of only two states (the other being Florida) that has experienced a population increase since 1978. With its wealth of quality woodland habitats, the Mountain State is crucial to sustaining viable populations of the wood thrush and many other neotropical songbirds.



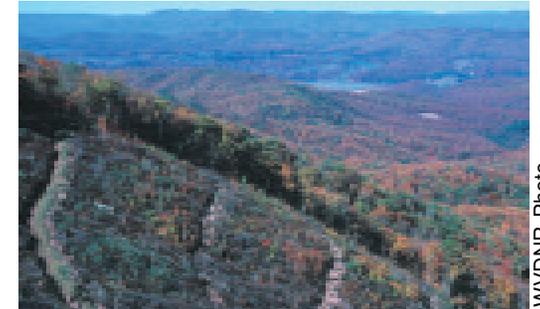
Steve Maslowski/USFWS

Forest fragmentation can be detrimental to populations of forest interior birds such as the wood thrush.

Threats to Neotropical Migrants

Stresses on Breeding Grounds

Neotropical songbirds that require large areas of mature forest for nesting are especially vulnerable to the forest fragmentation that has occurred in the eastern United States. Fragmentation, the reduction of large forests into several separate stands of trees by large highways, commercial and residential development and agriculture, creates more forest-



WVDNR Photo

Clearcuts create undesirable edges for forest interior nesting birds.

field edges in an area. As songbirds are forced to nest closer to forest edges they become more vulnerable to edge-lurking nest predators such as raccoons, opossums, blue jays, crows, snakes and house cats that can eat their eggs and young.

Although not as significant in West Virginia as elsewhere, another menace to many neotropical migratory songbirds is the brown-headed cowbird. This nest parasite lays its eggs in the nests of other birds at the expense of the host's offspring. The cowbird forages in open fields and has prospered from the fragmentation of eastern forests. This opportunist is contributing to the declines of several warbler populations including that of the endangered Kirtland's warbler.



Bob and Peter Wood

Ground nesting birds such as the black and white warbler are susceptible to nest predators.

Many neotropical migrants have traits which make them especially vulnerable to nest predators and competitors. The ovenbird, worm-eating warbler, black and white warbler and Louisiana water-thrush place their nests on or near the ground where they can be easily found by land predators.

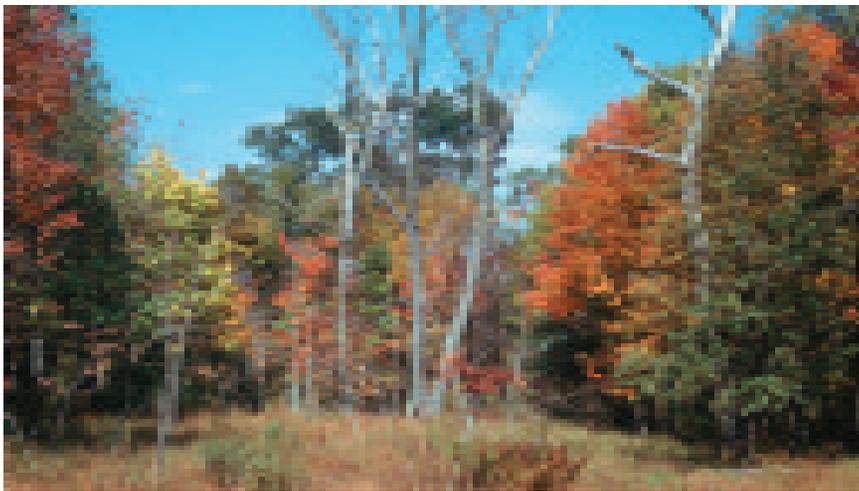
In addition, many forest interior species (those that nest deep in the forest) are smaller and less able to defend their nests from predators than edge-dwelling species which are adapted to coping with nest predators. Due to the time and energy demanded by migration, many migrants do not make a second nesting attempt if the first one fails.

Fragmentation is probably not the only factor affecting neotropical migrants on their breeding grounds. The golden-winged warbler, which has been declining throughout its range including West Virginia, relies on open, brushy habitats for nesting. Use of herbicides to control vegetation under power lines, abandonment of farms and suppression of fire that inhibits woody vegetation may be harming this species. Other factors—competition with birds that tolerate diverse habitats and the widespread use of insecticides resulting in reduced food supplies—may be plaguing neotropical migrants as well.



Bob and Peter Wood

Golden-winged warbler populations are declining in West Virginia due to habitat loss.



Drew Jones

Standing dead trees, or snags, provide nest cavities for a variety of birds.

Deforestation on Wintering Grounds

Recently, threats to neotropical migrants on their wintering grounds have captured the interest of bird conservationists.

Changes in the tropical landscape, including deforestation and conversion of woodlands and shrub thickets to agriculture, threaten the existence of the birds that crowd into these habitats in the winter. The conversion of massive forests to sugarcane plantations in Cuba has resulted in the near extinction of the Bachman's warbler, a bird that once wintered exclusively there. With the high rate of deforestation occurring in many Latin American countries there are likely to be additional species that experience similar fates.



8Loren McIntyre/ LAM@gscottm.com

Destruction of tropical forests decreases wintering grounds.



N.H. Sandburg/ U.S. Forest Service

Aerial view of coastline development.

Vanishing Stopover Sites

Because of the high energy demands of migration, it is essential that departure areas and stopover sites with sufficient cover and food be located along the way. Stopovers are especially critical as many are bottlenecks, small areas where large flocks converge after extended flights, and must temporarily support very high densities of birds.

Unfortunately, many important stopover areas including Cape May (New Jersey), the Delmarva Peninsula

(Delaware, Maryland and Virginia), the Gulf Coast (Florida, Alabama, Mississippi, Louisiana and Texas) and the Yucatan Peninsula (Mexico) are situated along coastal areas where development pressures are high. The loss of maritime forests, scrub thickets and coastal wetlands to housing developments can deprive migrants the protection and food they need to survive their journeys.

Prospects for Neotropical Migratory Birds



U.S. Forest Service Photo

Proper forest management can help migratory birds.

As with a chain, the population of a neotropical migrant species is only as secure as its weakest link. Even if ample nesting areas exist, a species might decline because of the degradation of its winter habitat or migration stopovers. The challenge of conserving neotropical migratory birds is they must be managed on three fronts—their breeding ranges, winter ranges and migration routes. For a single species these three areas are often located in three or more distinct countries that have conflicting management priorities. In West Virginia, land use practices such as some methods of timber harvesting

and mining that result in unsuitable habitat and fragmentation are of particular concern.

Current Protection Efforts

Efforts to protect and conserve neotropical migratory birds have begun throughout the Americas. Currently all migratory birds are protected under



Jim Fregonara

Volunteers help monitor and band migratory birds at Dolly Sods.

federal law but their habitats are not. In West Virginia, researchers are looking at the effects of various timber management practices on forest birds. Biologists in coastal areas are studying stopover habitat preferences of migratory birds and setting aside certain areas as wildlife refuges. International conservation groups have begun to work with Latin American governments on ways to use their forest resources without seriously degrading winter bird habitats. Some examples include the production of shade grown coffee and the promotion of ecotourism.



Partners in Flight

Closer to home, initiatives such as the Important Bird Areas Program (IBA) and Partners in Flight (PIF) have arisen to educate the public and develop strategies to conserve neotropical migratory birds. Partners in Flight, founded in 1990, promotes cooperation among private citizens, and various federal, state and private natural resource management organizations to develop guidelines on research, monitoring, education and management of neotropical migratory birds both in the United States and abroad. West Virginia has a PIF working group that is developing a neotropical migratory bird conservation plan for the state. The Important Bird Areas Program in West Virginia was begun in 2001 and is part of a global effort to identify, monitor and protect the most critical habitats for birds. Site nominations for WV IBA's are currently underway and monitoring of these areas will begin in the near future.

If you would be interested in being involved with the state's PIF working group or Important Bird Areas Program, contact WV PIF, WVDNR, PO Box 67, Elkins, WV 26241, or call (304) 637-0245.



Steve Maslowski/USFWS Photo

The scarlet tanager prospers in the rich deciduous forests of West Virginia.

What You Can Do

Thousands of Americans take part in migratory bird counts and breeding bird surveys each year. A count involving migratory species is conducted the second Saturday in May each year in conjunction with International Migratory Bird Day. You too can get involved by contacting your local bird club or the Wildlife Resources Section's Wildlife Diversity Program.

Small steps—installing nest boxes for cavity nesters; refraining from feeding competitors (cowbirds and house sparrows); and keeping your cats indoors--can make a noticeable difference. Use forest management practices that benefit birds, including harvesting timber in the fall or winter when birds do not breed. Private landowners should protect large trees which



Indigo Bunting.

Dave Menke/ USFWS Photo



Birders stop to view field nesting birds.

Craig Stihler



Keith Weller/USDA NRCS Photo

Get involved in planting trees and shrubs that provide cover and food for Mountain State bird visitors.

provide insect prey, nesting sites and cover. Leaving dead trees or snags is important to provide cavities for cavity-nesting birds.

Farmers should delay hay cutting until grassland birds have fledged their young, use biological (or non-toxic) controls on pests whenever possible and leave feathered edges of shrubs where fields meet woodland.

Gardeners can plant native vegetation for food and cover, provide water sources and avoid pesticides and herbicides, especially during the nesting season of April through July.

For More Information:

- WV DNR Wildlife Resources, Wildlife Diversity Program: 304-637-0245 or www.wvdnr.gov
- National Partners in Flight: partnersinflight.org
- National Audubon Society: www.audubon.org
- American Bird Conservancy: www.abcbirds.org
- Cornell Lab of Ornithology: www.birds.cornell.edu

Neotropical Migratory Birds that Breed in West Virginia



King Rail.

Jim Rathert/MO Conservation



Tree Swallow.

James C. Leupold/USFWS Photo



Catbird on nest.

James C. Leupold/USFWS

- Least Bittern
- Osprey
- Broad-winged Hawk
- Peregrine Falcon
- King Rail
- Virginia Rail
- Sora
- Common Moorhen
- Upland Sandpiper
- Black-billed Cuckoo
- Yellow-billed Cuckoo
- Common Nighthawk
- Chuck Will's Widow
- Whip-poor-will
- Chimney Swift
- Ruby-throated Hummingbird
- Belted Kingfisher
- Yellow-bellied Sapsucker
- Olive-sided Flycatcher
- Eastern Wood-pewee
- Yellow-bellied Flycatcher
- Acadian Flycatcher
- Willow Flycatcher
- Least Flycatcher
- Eastern Phoebe
- Great-crested Flycatcher
- Eastern Kingbird
- Purple Martin
- Tree Swallow
- Northern Rough-winged Swallow
- Bank Swallow
- Cliff Swallow
- Barn Swallow
- House Wren
- Blue-gray Gnatcatcher
- Veery
- Swainson's Thrush
- Wood Thrush
- Gray Catbird
- White-eyed Vireo
- Blueheaded Vireo
- Yellow-throated Vireo
- Warbling Vireo
- Hermit Thrush

- Red-eyed Vireo
- Blue-winged Warbler
- Golden-winged Warbler
- Nashville Warbler
- Northern Parula
- Yellow Warbler
- Chestnut-sided Warbler
- Magnolia Warbler
- Black-throated Blue Warbler
- Yellow-rumped Warbler
- Black-throated Green Warbler
- Blackburnian Warbler
- Yellow-throated Warbler
- Pine Warbler
- Prairie Warbler
- Cerulean Warbler
- Black-and-white Warbler
- American Redstart
- Prothonotary Warbler
- Worm-eating Warbler
- Swainson's Warbler
- Ovenbird
- Northern Waterthrush
- Louisiana Waterthrush
- Kentucky Warbler
- Mourning Warbler
- Common Yellowthroat
- Hooded Warbler
- Canada Warbler
- Yellow-breasted Chat
- Summer Tanager
- Scarlet Tanager
- Rose-breasted Grosbeak
- Blue Grosbeak
- Indigo Bunting
- Dickcissel
- Chipping Sparrow
- Lark Sparrow
- Savannah Sparrow
- Grasshopper Sparrow
- Lincoln's Sparrow
- Bobolink
- Orchard Oriole
- Baltimore Oriole



Ovenbird.

Steve Maslowski/USFWS Photo



Savannah Sparrow.

Dave Menke/USFWS Photo



Hooded Warbler with young.

Bob and Peter Wood



American Redstart

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