

Neotropical Migrant Birds – The Basics

A Wisconsin Society for Ornithology Publicity Committee Fact Sheet
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On a typical night in May, an estimated three million birds cross the southern border of Wisconsin, migrating to northward destinations. During the heaviest nights, there may be up to 30 million migrants. Some stop briefly in our state to rest and refuel for the rest of their journey. Others stay for the summer to nest and raise their young. In autumn, millions of migrant birds once again pass through Wisconsin, heading back south towards their wintering grounds. Some of them spend the winter in the southern United States; many others are Neotropical migrants.

Neotropical Migrant Birds – A Definition

Neotropical migrant birds breed in North America during the spring and early summer and spend the winter in Mexico, the Caribbean, and Central and South America. There are more than 200 species of Neotropical migrants, including some of our most beautiful songbirds, as well as shorebirds, waterfowl, and some raptors such as hawks and vultures.

Migration Details

Distance. Migration distances vary greatly among the different species of birds and even between individuals within a species. Distances can range from several hundred miles to thousands of miles. The champion long-distant migrant is the Common Tern, which has been found to fly as far as 16,000 miles on its fall migration flight. Just as astonishing, the Ruby-throated Hummingbird, our tiniest migrant bird, makes a nonstop flight of 600 miles over the Gulf of Mexico twice each year!



Height and speed. Three-quarters of songbirds migrate at an altitude of between 500 and 2,000 feet, but some geese and vultures have been observed as high as 29–37,000 feet (above mountains). A Mallard once struck a plane at 21,000 feet and holds the record for altitude in North America. As for speed, 90% of migrating birds fly at airspeeds between 15 and 45 miles per hour.

Navigation. Birds regularly use the stars, the sun, and the earth's magnetism for navigation. We now believe that some use infrasound emitted by mountains and other large topographic features. As they get closer to their destination, birds sometimes use landforms and maybe even their sense of smell to locate their final destination. There is still much to be learned about the navigation systems that birds use.

Timing. The vast majority of birds, including songbirds, shorebirds, and some waterfowl, migrate at night when it is cooler, the air is calmer, and there are fewer predators. Nighttime migration also allows them to feed during the daytime. A small proportion of birds fly by day, including geese and cranes, plus birds like hawks and vultures that soar on the rising currents of air formed as the sun heats the earth. Insect-eating birds like swallows, swifts, and nighthawks also fly by day because the flying insects on which they feed are active only then.

Fuel. Birds fuel their migration with body fat. In addition to having twice the energy of carbohydrates and protein, fat is lighter and less bulky. In preparation for migration, birds build fat reserves up to 50% of their body weight.



Habitat needs. Dave Ewert, biologist with The Nature Conservancy, describes three kinds of habitat that migrant birds use:

- 1. Fire escapes** are habitats that birds use in times of stress, such as when they are exhausted, starving, or disoriented. Under such conditions, they use any habitat they can find in the emergency. Small patches of habitat in urban and industrial areas can serve as fire escapes for migrants. These are especially important for birds migrating along the Great Lakes.
- 2. Convenience stores** offer more abundant and higher-quality food and shelter and are larger in size than fire escapes. Birds prefer them over fire escapes if they have a choice. Suitable habitats in parks, suburban gardens, and isolated rural woodlots are important convenience stores for migrants.
- 3. Full-service hotels** are sites with the best habitat – plenty of nutritious food for refueling, safety from predators, and adequate shelter from inclement weather. These sites are natural areas, undeveloped rural lands, parks, and wildlife refuges of relatively large size.

You Can Help

Create a stopover garden for migrant birds. When we travel, we have many restaurants and gas stations en route. But migratory birds are having increasing problems finding stopover habitats where they can rest and refuel as more and more land is being developed and paved. We can help birds by creating stopover gardens for migrants wherever we live. Urban and suburban gardeners can easily create fire escapes and convenience stores, which can be vital for sustaining migrants when full-service hotels are not available. Rural residents can provide convenience stores in the form of woodlots or other medium-sized natural areas, while those with larger natural sites may be able to create full-service hotels for birds. Everyone can work for the protection of such sites by private groups and government.

Buy shadegrown coffee. Traditional shadegrown coffee plantations support over 90% more species of birds than do the newer sun-grown coffee plantations. Shadegrown coffee is available through the internet, at specialty stores, and even at some grocery stores.

Keep your cat indoors. Studies have shown that free-ranging cats kill millions of birds each year in Wisconsin alone. Keeping your cat indoors will save many birds. Just as important, it will keep your pet from being among the many cats that are killed by cars, mauled by dogs, poisoned, and lost. For more information, see the American Bird Conservancy's Cats Indoors Program at www.abcbirds.org/cats/ and the Wisconsin Bird Conservation Initiative's Issue Paper at www.wisconsinbirds.org/.

Join and support land and bird conservation groups. In addition to the Wisconsin Society for Ornithology, there are many other groups working to conserve birds and bird habitat – groups such as National Audubon Society and The Nature Conservancy.

Participate in International Migratory Bird Day. Bird festivals, bird walks, education programs, and bird counts are held throughout North and Central America to celebrate the most important and spectacular events in the lives of migratory birds. For more information, see <http://www.birdday.org/>.

Provide window protection. Clear and reflective sheet glass as window panes in homes is a passive invisible killer of wild birds worldwide. Protective measures range from physical barriers that keep birds from striking to detractants that transform the glass area into uninviting space or a recognizable obstacle to be avoided. Placement of bird feeders within three feet of the glass surface – or at least 10 yards away – greatly reduces the hazard for feeder visitors.

Resources

- *Gatherings of Angels: Migrating Birds and Their Ecology* by Kenneth P. Able. 1999, Cornell University Press.
- *Living on the Wind* by Scott Weidensaul. 1999, North Point Press.

On the Internet:

- Wisconsin Society of Ornithology: <http://www.uwgb.edu/birds/wso/>.
- *Beyond the Birdfeeder* by Mariette Nowak (WSO pamphlet): <http://www.uwgb.edu/birds/wso/birdscaping.pdf>.
- Wisconsin Bird Conservation Initiative: <http://www.wisconsinbirds.org/>.
- EPA: <http://www.epa.gov/rev/262lcb03-fs-smith-stopover.pdf>.
- John Idzikowski's website on radar bird detections: <http://my.execpc.com/CE/5F/idzikoj/nexrad/nexweb/nexrad.htm>.
- Smithsonian: http://nationalzoo.si.edu/ConservationAndScience/MigratoryBirds/Fact_Sheets/.
- US Fish and Wildlife Service: http://library.fws.gov/Bird_Publications/songbrd.html.
- National Wildlife Federation's eNature (learn when spring migrants will return): http://www.enature.com/birding/migration_home.asp.

What to Plant in Your Migrant Bird Garden

Ideally, plant multiple layers of vegetation – native trees, shrubs, wildflowers, and grasses – to provide birds with both shelter and food for migration. Use herbicides and insecticides sparingly or not at all.

- **For spring migrants.** Most migrant birds feed primarily on insects during their spring migration. Plant native species since they typically host more insects than non-native plants. The best species for spring insects include oaks, willows, and hawthorns.
- **For fall migrants.** In fall, many migrants feed on fruits and seeds to fuel their migration. Some of the best shrubs for migrants are species of dogwood that have high-fat berries. The seeds of native wildflowers and grasses are excellent fuel for seed-eating migrants.