



The Early Bird Gets...Counted!

Results from 2010 Breeding Landbird Survey at Eleanor Roosevelt

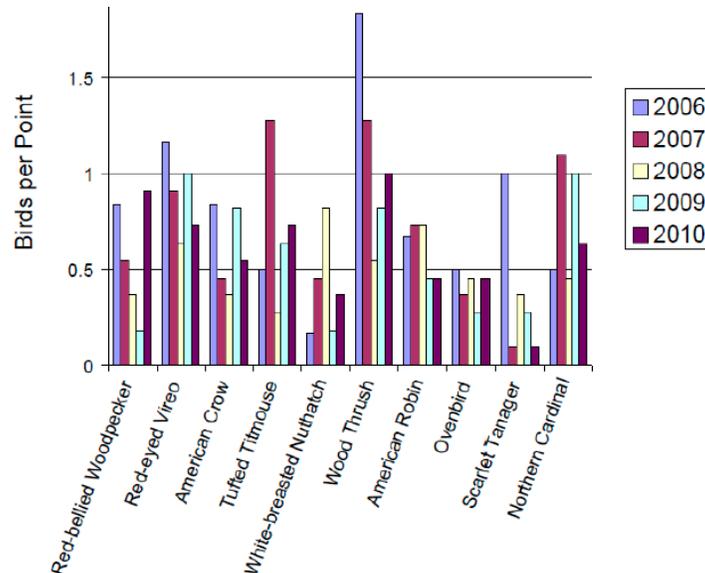
Background

With the invaluable help of volunteer birders that traverse mosquito infested forests and who start their surveys even before the sun wakes up in the morning, the Northeast Temperate Network (NETN) and the Vermont Center for Ecostudies (VCE) have been monitoring breeding landbirds in most network parks since 2006. On a broad scale, all 13 network parks are located within the temperate deciduous forest biome. At a finer scale, the parks range across four Bird Conservation Regions (BCR) with Eleanor Roosevelt lying in the Lower Great Lakes/St. Lawrence Plain BCR. BCR's, developed by the North American Bird Conservation Initiative, are ecologically defined areas that provide a consistent framework for bird conservation across North America. Each BCR has its own unique list of "priority" species ranked by conservation importance according to a standardized set of criteria.

Purpose and Scope

This latest report summarizes data collected from 2006 through 2010. As with any long-term study, as more years of data accumulate, interpreting study results becomes more relevant and meaningful. Therefore, it is important to not read too much into the results of only a few years of data collection. Readers of the report should also treat the Ecological Integrity Assessment results as provisional because the assessment assumes that the bird community is completely characterized, and if a subset of species are rare and hard to detect, the results could be biased. Also, many NETN parks were founded with a primary objective to manage for the historical landscape integrity rather than biological or ecosystem structure and function; thus, management action may not always be warranted when some groups of bird species are rated "significant concern."

In an attempt to better characterize the bird



The 10 most common species detected at Eleanor R. 2006 - 2010.

community at each park and reduce bias, the 2010 assessment results presented for each park were produced by combining data from all survey years at the park. In the future, NETN plans to work directly with park managers to produce a parallel assessment based on park management goals.

Results and Findings

The Roosevelt-Vanderbilt National Historic Sites consist of three separate park units at which study sites were established in 2006 and surveyed annually. The one study site at Eleanor Roosevelt originally consisted of six point counts, but five additional sampling points were added for the 2007 field season, increasing the total to 11 point counts. During 2010, a total of 93 individuals of 22 species were detected, compared to 93 individuals of 25 species in 2009, 82 individuals of 23 species in 2008, 113 individuals of 28 species in 2007, and 63 individuals of 19 species in 2006. Eleven point counts were conducted each year, except for 2006 when six point counts were conducted. In total, 41 species were recorded during the 5 years, and there was an average abundance of 9.0 birds per point. While relative abundance remained the same in 2010 (compared with 2009), fewer species were detected resulting in a lower diversity rating. A total of four species of conservation concern were detected during the surveys: Eastern Wood-Pewee, Wood Thrush, Worm-eating Warbler, and Baltimore Oriole. The park-wide forest avian Ecological Integrity Assessment (EIA) for all years combined resulted in three categories ranked as "Good," seven ranked

Scarlet Tanager
Jerry Oldenettel photo



41 Bird Species in Eleanor R.

American Crow
American Goldfinch
American Robin
Baltimore Oriole
Barred Owl
Black-capped Chickadee
Blue Jay
Brown Creeper
Canada Goose
Carolina Wren
Common Grackle
Cooper's Hawk
Downy Woodpecker
Eastern Bluebird
Eastern Wood-Pewee
Gray Catbird
Great Crested Flycatcher
Hairy Woodpecker
Louisiana Waterthrush
Mourning Dove
Northern Cardinal
Northern Flicker (Yellow-shafted Flicker)
Ovenbird
Pileated Woodpecker
Red-bellied Woodpecker
Red-eyed Vireo
Red-shouldered Hawk
Red-tailed Hawk
Red-winged Blackbird
Rose-breasted Grosbeak
Ruby-throated Hummingbird
Scarlet Tanager
Song Sparrow
Tufted Titmouse
Veery
White-breasted Nuthatch
Wood Duck
Wood Thrush
Worm-eating Warbler
Yellow-billed Cuckoo
Yellow-throated Vireo

as “Caution,” and three ranked as “Significant Concern”. Among the categories ranked as “Significant Concern” were “single brooded,” a guild that represents long-distance Neotropical migrants that only have time to raise one brood of chicks, and “low canopy foragers,” which specialize in feeding in the forest sub-canopy. A low proportion of single brooded species may be indicative of the park’s location within

a fragmented landscape, while a lack of low canopy foragers may reflect poor structural diversity within the forest, perhaps due to a deer over-browse problem. The EIA has been calculated for each site individually, and the results are provided in Appendix C of the report. For more information on findings for this park and all other Network parks, download the report from NETN’s Monitoring webpage.

Species Spotlight:



Wood Thrush

With a rich, flute-like, liquid call, the Wood Thrush’s “*ee-o-lay*” song is a welcome summer sound in the forests of the northeast. Having flown a thousand miles or more, this light-brown backed

thrush now scurries along the forest floor, hopping through layers of dead leaves in search of the bounty of summer insects it travelled so far to feast on and to help raise its young.

The Wood Thrush can achieve its ethereal song because it has the equivalent of two sets of “vocal cords,” which enable it to sing two overlapping songs at once, essentially singing with two voices simultaneously.



A close relative of the

American Robin, the Wood Thrush also uses mud to build its nest. The mud is used to form a deep cup which they line with fine rootlets and use dead leaves for the base. Often

Jerry Oldenettel photo.

they will incorporate strips of white paper, cloth, plastic, or other human trash into the base which may help to break up the outline of the nest and make it less noticeable to predators.

Wood Thrushes occupy our forests from April through September. By mid-August, they have begun a mass exodus to their winter homes in the tropical forests of southeastern Mexico to Panama. Migrating primarily at night, Wood Thrushes travel an average distance of over 1300 miles between their breeding and wintering grounds. Before embarking on this long journey, Thrushes alter their diet from protein-rich insects, which constitute the bulk of the food consumed while raising young, to energy-rich fruits, especially berries. The carbohydrates and lipids in the fruit readily convert to fat, which provides the fuel necessary for migration.

The Wood Thrush has been a frequent subject of ecological research, largely to figure out why there has been a 1.7% per year decline in the species over much of its range between 1966 and 1994. Research conducted on the breeding grounds has centered on the effects of forest fragmentation on nesting success.

Forest fragmentation refers to the reduction of extensive, contiguous forest into smaller, disjunct parcels separated by roads, agricultural fields, houses, shopping malls, and other “development.” This creates more forest edge relative to forest interior, a configuration which makes birds’ nests, eggs, and young more vulnerable to predators and the brood-parasite Brown-headed Cowbird, which lays its eggs in other birds’ nests, often to the detriment of the host young. Research findings demonstrate that Wood Thrush nesting success is indeed greatest in unfragmented forests. Success rates decline with forest patch size primarily as a result of increased predation on eggs and young. This pattern has been widely detected across the breeding range and is thought to be a key contributing factor behind population declines.

More Information

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Full Report online at:

http://science.nature.nps.gov/im/units/NETN/monitor/flashmo_220_nature/monitor_flash.cfm



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