



ACADIA NP • APPALACHIAN NST • BOSTON HARBOR ISLANDS NRA • MARSH-BILLINGS-ROCKEFELLER NHP • MINUTE MAN NHP
MORRISTOWN NHP • ROOSEVELT-VANDERBILT NHS • SAINT-GAUDENS NHS • SAUGUS IRON WORKS NHS • SARATOGA NHP • WEIR FARM NHS

The Early Bird Gets...Counted!

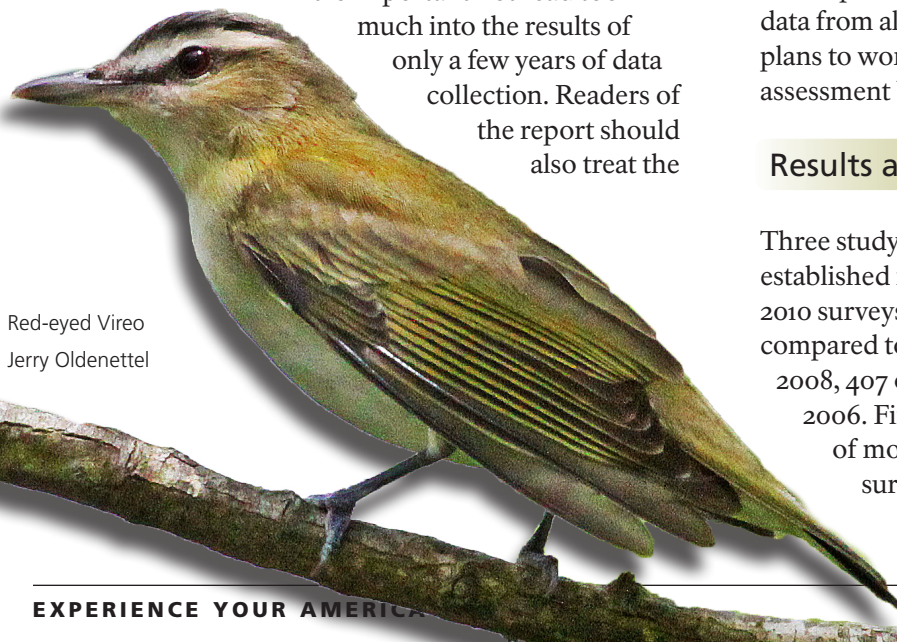
Results from 2010 Breeding Landbird Survey at Marsh-Billings-Rockefeller NHP

Background

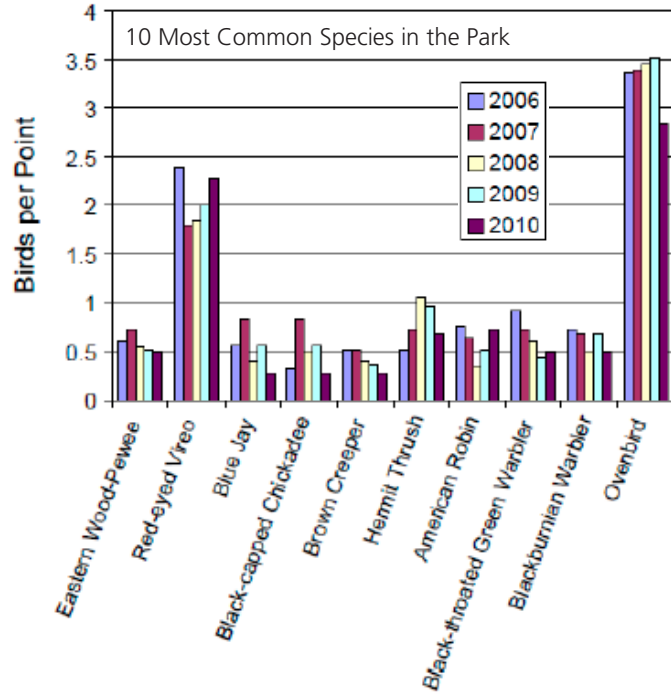
With the invaluable help of volunteer birders that traverse mosquito infested forests and who start their surveys even before the sun wakes up in the morning, the Northeast Temperate Network (NETN) and the Vermont Center for Ecostudies (VCE) has been monitoring breeding landbirds in most network parks 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 with Marsh-Billings-Rockefeller lying in the Atlantic Northern Forest 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. By using a broad scale that is ecologically meaningful to birds, conservation efforts can be tailored to support groups of species throughout the heart of their ranges. Bird Conservation Regions are being used to help assign "conservation priority" scores for bird species. 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 not read too much into the results of only a few years of data collection. Readers of the report should also treat the



Red-eyed Vireo
Jerry Oldenettel



Ecological Integrity Assessment (EIA) 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 rather than biological integrity 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 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

Three study sites consisting of 25 point-count locations were established in the park and surveyed annually since 2006. During 2010 surveys, volunteers detected a total of 315 birds of 35 species, compared to 336 of 35 species in 2009, 351 birds of 39 species in 2008, 407 of 48 species in 2007, and 368 birds of 42 species in 2006. Fifty-six total species were recorded over the 5 years of monitoring. Average abundance during the first site survey across all 5 years was 14.0 birds per point. In 2010, relative abundance (12.6 birds per point) and species richness was at a 5-year low. Two species of

56 species detected in the park.

American Crow	Rose-breasted Grosbeak
American Goldfinch	Scarlet Tanager
American Redstart	Tufted Titmouse
American Robin	Veery
Baltimore Oriole	White-breasted Nuthatch
Barred Owl	Wild Turkey
Black-and-white Warbler	Winter Wren
Blackburnian Warbler	Wood Thrush
Black-capped Chickadee	Yellow-bellied Sapsucker
Black-throated Blue Warbler	Yellow-rumped Warbler (Myrtle Warbler)
Black-throated Green Warbler	
Blue Jay	
Blue-headed Vireo	
Bobolink	
Broad-winged Hawk	
Brown Creeper	
Brown-headed Cowbird	
Cedar Waxwing	
Chestnut-sided Warbler	
Chimney Swift	
Chipping Sparrow	
Common Grackle	
Common Name	
Common Raven	
Common Yellowthroat	
Dark-eyed Junco (Slate-colored Junco)	
Downy Woodpecker	
Eastern Kingbird	
Eastern Wood-Pewee	
Golden-crowned Kinglet	
Great Crested Flycatcher	
Hairy Woodpecker	
Hermit Thrush	
Indigo Bunting	
Least Flycatcher	
Louisiana Waterthrush	
Mourning Dove	
Mourning Warbler	
Northern Flicker (Yellow-shafted Flicker)	
Ovenbird	
Pileated Woodpecker	
Pine Warbler	
Purple Finch	
Red-breasted Nuthatch	
Red-eyed Vireo	
Red-winged Blackbird	

regional conservation concern have been detected during point count surveys: Wood Thrush (which have been detected every year) and Bobolink (a grassland species that was only detected in 2006 and 2007). The park-wide forest avian EIA for all years combined at the park resulted in five categories ranked as “Good,” eight ranked as “Caution,” and none ranked as “Significant Concern”. It should be noted that 2 of the 3 Structural Response Guilds that were ranked

as “Caution” (canopy nester and interior forest obligate) were less than 2 percentage points away from a “Good” rating, suggesting that the forest bird community is doing well in the park. 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:
Blue Jay

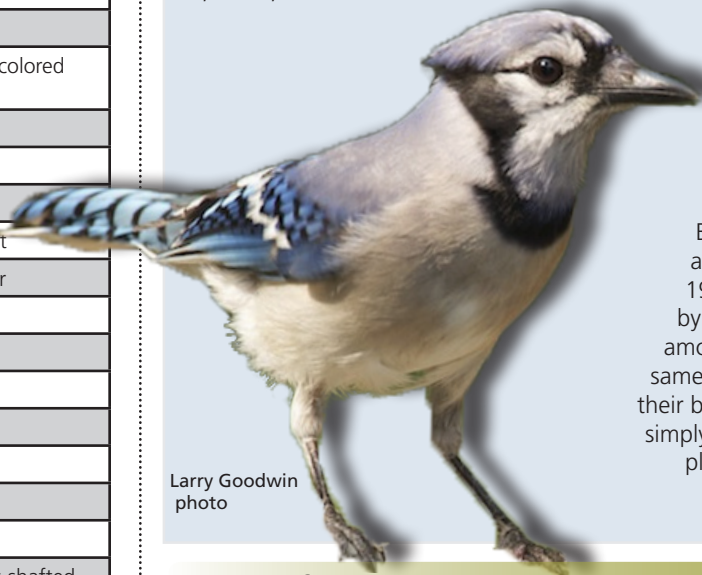
The Blue Jay is a large songbird that is familiar to many people. Its perky crest; blue, white, and black plumage; and raucous calls make it unmistakable with any other species in the northeast. Blue Jays are known for their intelligence and complex social systems with tight family bonds. They are known to sometimes take and eat eggs and nestlings of other birds, but this seems to

be an uncommon occurrence. In an extensive study of Blue Jay feeding habits involving almost 600 individuals, only 1% of jays had evidence of eggs or birds in their stomachs. Most of their diet was composed of insects and nuts.

Blue Jays carry food in their throat and upper esophagus—an area often called a “gular pouch.” They may store 2-3 acorns in the pouch, another one in their mouth, and one more in the tip of the bill. In this way they can carry off five acorns at a time to store for later feeding. Six birds with radio transmitters each cached 3,000-5,000 acorns

one autumn. Their fondness for acorns and their accuracy in selecting and burying acorns and seeds of other species that have not been infested with weevils or are otherwise unhealthy are credited with spreading trees northward after the last glacial period. Historical information indicates that with the help of Blue Jays, oak forests moved north at the blinding pace (for a heavy seeded species like oak anyway) of 380 yards per year.

Blue jays also make choices about which trees are harvested, and which and how many nuts are gathered. A study in the 1980’s found a germination rate of 88% in beechnuts taken by blue jays, whereas there was only a 10% germination rate among beechnuts the researchers randomly collected from the same trees. Blue jays appear to test the nuts by holding them in their beaks or shaking them. Those that they deem unworthy are simply dropped to the ground. These facts suggest that blue jays play an at least a partial role in determining forest structure and quality.



Larry Goodwin photo

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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