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Birding by Ear

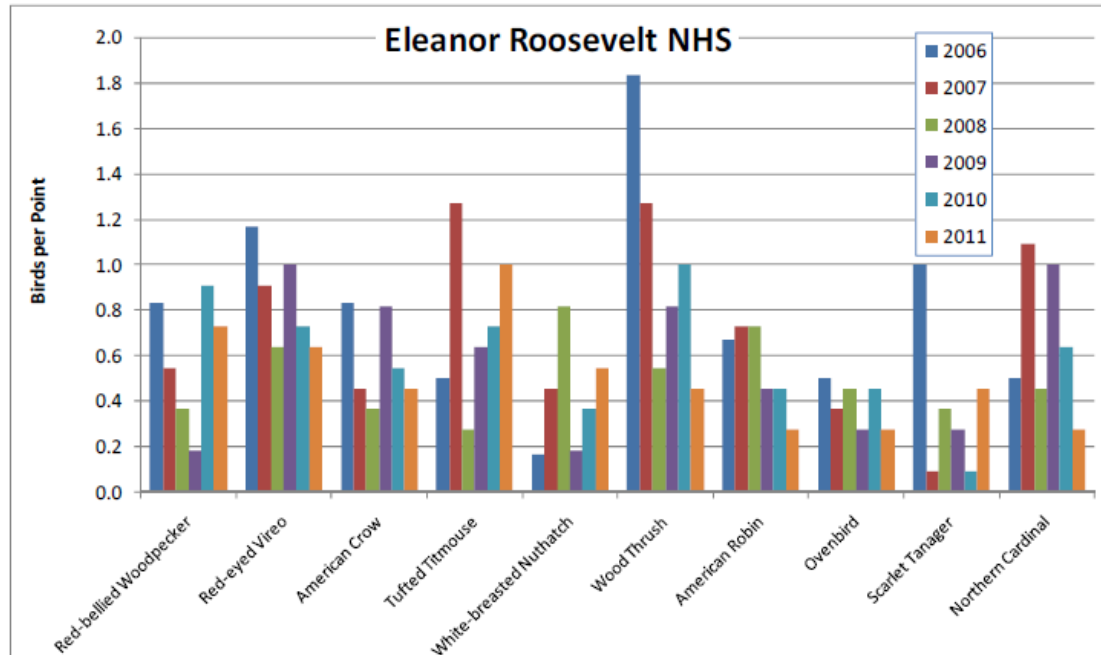
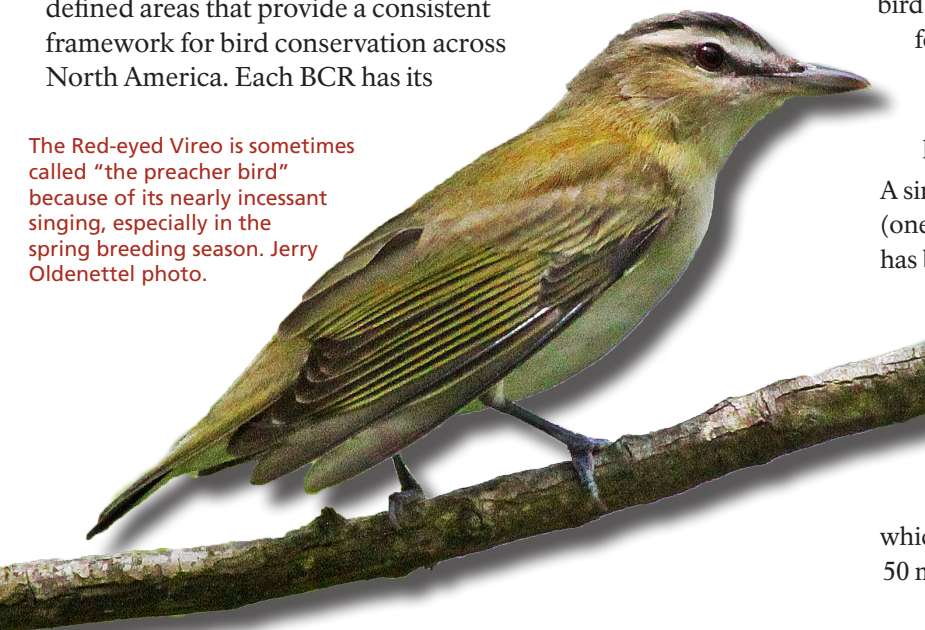
Annual volunteer landbird survey results for Eleanor Roosevelt NHS

Background

The Northeast Temperate Network (NETN) monitors a variety of natural resource indicators, called vital signs, for 12 parks in the northeast and the Appalachian National Scenic Trail. Breeding birds are one of these vital signs because they are a reliable indicator of ecological integrity and a high profile taxonomic group. 2011 marked the sixth year of annual landbird monitoring in the forests of Eleanor Roosevelt NHS and many other network parks. NETN and the Vermont Center for Ecostudies accomplished this only with the invaluable help of volunteer birders who crawled out of bed at ungodly early hours, endured hordes of biting mosquitoes and black flies, and contributed their time, efforts, and expert birding skills.

On a broad scale, all 13 NETN parks are located within the temperate deciduous forest biome. At a more refined level, the parks range across four Bird Conservation Regions (BCR) with this park lying in the Lower Great Lakes/St. Lawrence Plains 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

The Red-eyed Vireo is sometimes called "the preacher bird" because of its nearly incessant singing, especially in the spring breeding season. Jerry Oldenettel photo.



Most commonly detected species in the park.

own unique list of "priority" species ranked by conservation importance according to a standardized set of criteria.

Purpose and Methods

A recently published report summarizes data collected from 2006 through 2011. In an attempt to better characterize the bird community at each park, the assessment results presented for each park were produced by combining data from all survey years (up to 6 years of data). In the future, project organizers plan to work with park managers to produce a parallel assessment based on park management goals.

A single study site was established at Eleanor Roosevelt NHS (one of the Roosevelt-Vanderbilt National Historic Sites) and has been surveyed annually since 2006. The site originally consisted of six point count locations, but five additional sampling points were added for the 2007 field season, increasing the total to 11 point count locations. A volunteer birder visits each point at least once per year between late May and June, and record the species of each individual detected, the time each individual is first detected, and the distance band within which each individual was first detected (0-10 m, 10-25 m, 25-50 m, and > 50 m).

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

All species that have been detected during initial point count surveys in the park since 2006.

To get a “bird’s eye” view of the park’s site, visit the Google Earth Park Maps web page (accessible through the leftmost suite of menu choices on NETN’s homepage), which also contains bird monitoring routes, Avian Ecological Integrity Assessments and species detection frequencies for all participating NETN park units.

The avian ecological integrity assessment is based on groups of bird species that require similar habitat, food, or other elements for their health and survival. Over time, it will help shed light on changes in a broader, landscape context and indicate the direction that breeding bird habitat at the park may be going. For forest breeding birds, a rank of Good, Caution, or Significant Concern is assigned based on species richness thresholds and ranks. “Good” represents acceptable or desired conditions; “Caution” indicates a problem may exist; “Significant concern” indicates undesired conditions that may be in need of management actions. Project organizers recognize that the assessment is based on ecological criteria, and that park management goals may not always seek to attain “ecological integrity.” A management assessment could be developed by park staff and NETN scientists that would reflect progress towards avian and ecological

management goals for individual parks. For more information about the Avian Ecological Integrity Assessment, as well as project methodologies, sampling scheme, etc., see the Breeding Landbird Monitoring, available on NETN’s website.

Results and Findings

During 2011, a total of 129 individuals representing 40 species were detected, including seven species detected for the first time (Wild Turkey, Chimney Swift, Northern Mockingbird, Cedar Waxwing, Prairie Warbler, Black-and-white Warbler, and Indigo Bunting). In total, 48 species have been recorded during the 6 years, with an average abundance of 9.48 birds per point. In 2011, both relative abundance (11.73 birds per point) and species richness (40) were the highest in the survey’s 6-year history. However, of the ten most commonly detected species across all years, the relative abundances of only three (Tufted Titmouse, White-breasted Nuthatch, and Scarlet Tanager) increased from 2010, and the relative abundances of six species in 2011 were below the 6-year average. A total of five species of conservation concern were detected: Eastern Wood-Pewee, Wood Thrush, Prairie Warbler, Worm-eating Warbler, and Baltimore Oriole. A list of species, their relative abundances, and other summary statistics are provided in the full report.

Red-eyed Vireo, Wood Thrush, Tufted Titmouse, and Northern Cardinal continue to be the most commonly detected species across all years. The park-wide forest avian ecological integrity assessment for all years combined at the park resulted in three categories ranked as “Good,” seven ranked as “Caution,” and three ranked as “Significant Concern” (the 2011 data did not alter the 2010 results). Among the categories ranked as “Significant Concern” were “canopy nester,” a guild that requires a well-developed canopy layer, and “low canopy foragers,” which specialize in feeding in the forest sub-canopy. A low proportion of canopy nesting 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.

More Information

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Full Report online at:
<http://science.nature.nps.gov/im/units/NETN/index.cfm>



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