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The Early Bird Gets...Counted!

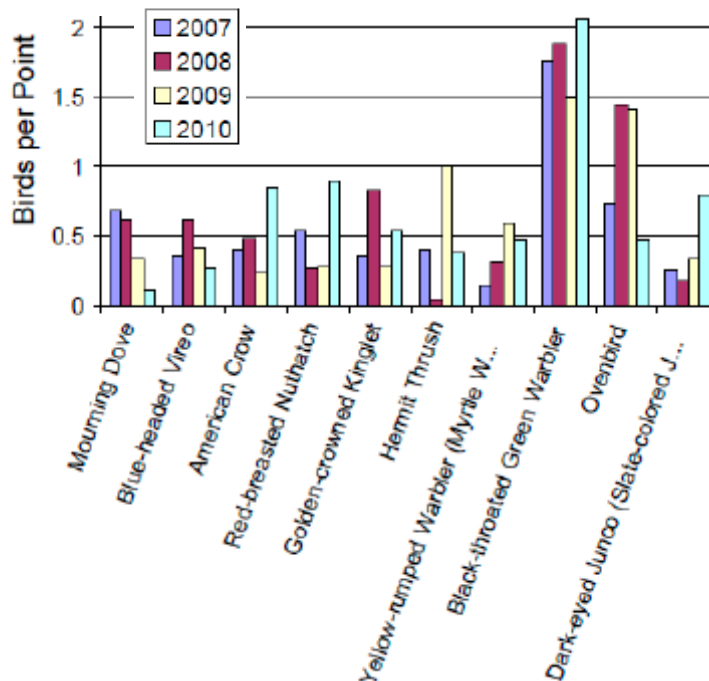
Results from 2010 Breeding Landbird Survey at Acadia National Park

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 (BCR) with Acadia 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. 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 2007 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 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. And, although this does not apply to Acadia, 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

A total of 51 point count locations in seven study sites were established in 2007 at Acadia. During 2010 surveys, volunteers detected a total of 507 birds of 40 species (at 38 point count locations), compared to 522 of 41 species (52 point counts) in 2009, 333 of 33 species (36 point counts) in 2008, and 269 of 39 species (28 point counts) in 2007. Sixty total species were recorded over the 4 years of monitoring. Average abundance during the first site survey increased from 10.6 birds per point in 2009 to 11.7 birds per point in 2010. Four species of regional conservation concern were detected during the surveys: Boreal Chickadee, Wood Thrush, Blackpoll Warbler, and Eastern Towhee. Among the 10 most abundant species detected at all sites combined, four species (American Crow, Redbreasted Nuthatch, Black-throated Green Warbler, and



Pine Siskin
BW Jones photo

60 Species Found in Acadia

Alder Flycatcher
American Crow
American Goldfinch
American Redstart
American Robin
Barred Owl
Black-and-white Warbler
Blackburnian Warbler
Black-capped Chickadee
Blackpoll Warbler
Black-throated Blue Warbler
Black-throated Green Warbler
Blue Jay
Blue-headed Vireo
Boreal Chickadee
Brown Creeper
Brown Thrasher
Cedar Waxwing
Chestnut-sided Warbler
Common Grackle
Common Loon
Common Raven
Common Yellowthroat
Dark-eyed Junco (Slate-colored Junco)
Downy Woodpecker
Eastern Phoebe
Eastern Towhee
Eastern Wood-Pewee
Golden-crowned Kinglet
Great Crested Flycatcher
Hairy Woodpecker
Hermit Thrush
Herring Gull
Least Flycatcher
Magnolia Warbler
Mourning Dove
Nashville Warbler
Northern Flicker (Yellow-shafted Flicker)
Northern Parula
Ovenbird
Pileated Woodpecker
Pine Siskin
Pine Warbler
Purple Finch
Red-breasted Nuthatch
Red-eyed Vireo
Red-winged Blackbird
Ruby-crowned Kinglet
Ruby-throated Hummingbird

Spruce Grouse
Swainson's Thrush
Swamp Sparrow
Veery
White-throated Sparrow
White-winged Crossbill
Winter Wren
Wood Thrush
Yellow-bellied Flycatcher
Yellow-rumped Warbler (Myrtle Warbler)

Dark-eyed Junco) were recorded at their highest levels in 2010, while three species (Mourning Dove, Blue-headed Vireo, and Ovenbird) were recorded at their lowest. The park-wide forest avian ecological integrity assessment for all years combined at Acadia National Park indicates that the forest bird community appears to be doing well. 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.

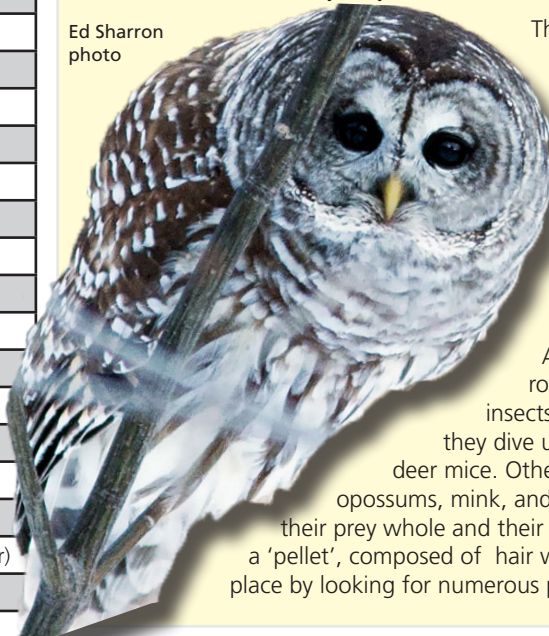


Species Spotlight: Barred Owl

Barred owls are relatively large owls with round heads that lack ear tufts. They are called "barred" owls because they have brownish-gray/white feathers that form bars across their chest. Another distinguishing feature is their dark brown eyes - most other owls have yellow eyes. They have feather-covered legs and sharp, small beaks. The Barred Owl is a highly vocal owl giving a loud and resounding "hoo-hoo, hoo-HOO; hoo-hoo, hoo-HOO, errrrr" which is often phrased as "Who-cooks for-you? Who-cooks for-you, all?" - The last syllable dropping off noticeably. Like some other owl species, they will call in the daytime as well as at night. The calls are often heard in a series of eight, then silence, when the owl listens for a reply from other owls.

As is well known, owls can see very well at night, but they also have a special inner eyelid which blocks bright sunlight to protect their eyes during the day. Unlike songbirds, which have eyes on the sides of their head to help them to see beside and behind them to keep a lookout for predators, owls have both eyes in the front. This gives them 'binocular' vision allowing for good depth perception. Their eyes are actually locked in their sockets which is why they have evolved the ability to turn their heads almost completely around.

Ed Sharron
photo



The Barred Owl has a circular facial disk that accentuates its round head. Stiff facial feathers can move, helping to direct sound to its ears which are holes on either side of their head covered with feathers, with one hole being higher than the other. This helps the owl detect the direction a sound is coming from. Their highly sensitive hearing can detect a vole scurrying under the snow in a field from several meters away. Owls also have fringed wing feathers on the edges, helping to make their flight virtually silent; essentially, prey have no indication of the owl until they are grasped in its talons.

A very opportunistic hunter, the Barred Owl plays a significant role in the control of a variety of rodents and to a lesser extent insects. They will often use a favorite hunting perch from where they dive upon prey - meadow voles primarily, followed by shrews and deer mice. Other mammals include rats, squirrels, young rabbits, bats, moles, opossums, mink, and weasels. Birds are taken occasionally. They often swallow their prey whole and their stomach acids digest the soft parts, then the owls regurgitate a 'pellet', composed of hair wrapped around bones. You can find an owl's favorite eating place by looking for numerous pellets on the ground below a tree.

More Information

Brian Mitchell
Program Manager
Northeast Temperate Network

Phone/Email
802-457-3368 ext. 37
brian_mitchellh@nps.gov

Steve Faccio
Conservation Biologist
Vermont Center for Ecostudies

802.649.1431
sfaccio@vtecostudies.org

Full Report online at:

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



Northeast Temperate Network
54 Elm Street, Woodstock, Vermont 05091
802-457-3368

