

GRASSLAND BIRD MONITORING

ANDERSON-WELLS FARM
Quaker Street, Lincoln, Vermont

Fourth Year Report

Marc Lapin

2 July 2018

Introduction

Grassland bird monitoring in the Anderson-Wells Farm fields began in 2015 in an effort to document use of the mowed fields by grassland-nesting species. I report on the first four years of monitoring, which can now serve as the baseline under the current mowing regime.

In accord with the conservation easement held by the Northeast Wilderness Trust and the July 2014 management plan approved by the Trust, the fields have been mowed annually no earlier than August 15th to allow for grassland bird nesting and fledging. The hay has been cut and left to lie unharvested. The 21 acres of fields are configured in a U shape surrounding the homestead area. Aspects are southwest- to west-facing and all fields are moderately sloping. Soils are moderately well to poorly drained Berkshire, Peru and Cabot stony and extremely stony loams.

The management plan calls for re-evaluation of the mowing regime after this initial baseline monitoring. The plan suggest, for instance, different sections of fields could be mowed on alternating years or periodic prescribed burns could be implemented to remove the built-up thatch. Other changes or staying the course can also be considered.

Methodology

Methods were adapted from a Northeast Coordinated Bird Monitoring Partnership¹ protocol utilized by New Jersey Audubon Society and Audubon New York for citizen-science grassland bird monitoring². The configuration of Wells Place fields suggested three sampling points (Figure 1). Each year two sampling events in late May and June were conducted, except that due to personnel constraints 2018 saw only a late June sampling. In 2015, at the beginning of the project, we began sampling during the third week of May; after that experience we considered that given the latitude and elevation of the site we would likely obtain more reliable results if the first spring sampling were conducted during the final week of May or the first week of June. Sampling occurred on the following dates: 21 May and 4 June 2015; 26 May and 8 June 2016; 2 and 22 June 2017; 22 June 2018.

During sampling all species observed by eye or ear were recorded, be they grassland-nesting species or otherwise. This portion of the protocol was not followed, however, on the 4 June 2015 date, which was sampled by an alternate researcher.

¹ Lambert, J.D, T.P. Hodgman, E.J. Laurent, G.L. Brewer, M. Iliff & R. Dettmers. 2009. The Northeast Bird Monitoring Handbook: Ten Steps to Successful Bird Conservation through Improved Monitoring. https://www.researchgate.net/publication/237281946_The_Northeast_Bird_Monitoring_Handbook_Ten_Steps_to_Successful_Bird_Conservation_through_Improved_Monitoring Accessed 30 June 2018.

² Tsipoura, N., K. Mylecrain, M. Morgan & F. Rivera. 2008. Development of avian indicators and measures for monitoring threats and effectiveness of conservation actions—Grassland Birds https://rcngrants.org/sites/default/files/final_reports/Grassland%20Bird%20Protocol%20and%20Standard%20Ope rating%20Procedures.pdf Accessed 30 June 2018.

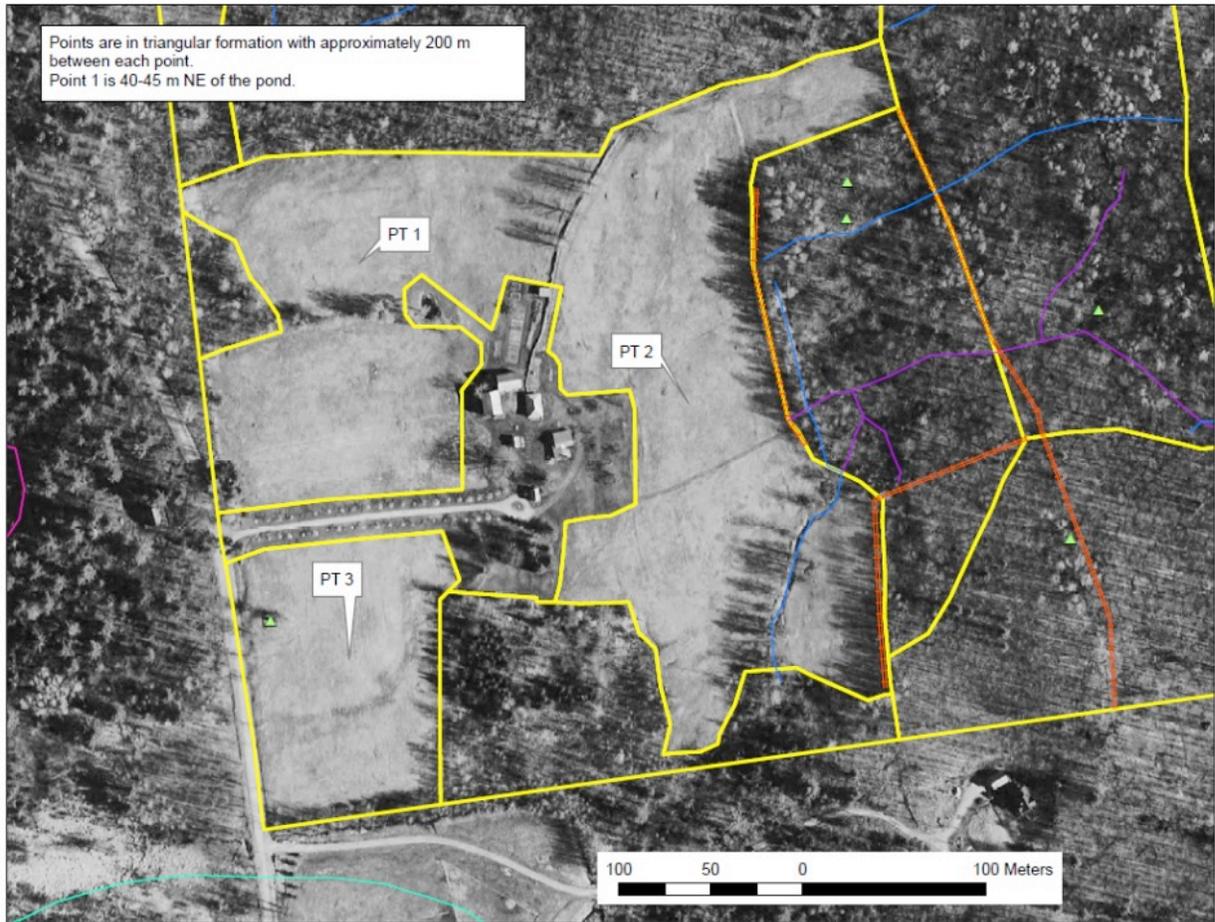


Figure 1. Wells Place grassland-nesting bird monitoring points, Quaker Street, Lincoln, VT.

Results

Grassland-nesting bird species have only been observed on two occasions (Table 1). A single Bobolink was observed 4 June 2015 at Point 1. A single Savannah Sparrow was heard on 2 June 2017 also at Point 1. Bobolink is an Audubon Vermont Priority Species for the Champlain Valley³ and a State of Vermont Medium Priority Species of Greatest Conservation Need⁴. Savannah Sparrow is not listed as a conservation priority.

Other Audubon Vermont priority bird species recorded during the grassland bird monitoring were Chestnut-sided Warbler, heard on seven occasions in 2015, 2016 and 2017. The forest-edge/early successional forest warbler was noted at all three sampling points. Baltimore Oriole was heard at Point 3 on 8 June 2016.

³ http://vt.audubon.org/sites/g/files/amh751/f/cv_priority_bird_list_20101.pdf Accessed 2 July 2018.

⁴ https://vtfishandwildlife.hosted.civiclive.com/UserFiles/Servers/Server_73079/File/About%20Us/Budget%20and%20Planning/WAP_2015draft/5.%20SGCN%20Lists%20&%20Taxa%20Summaries%20DRAFT%209-28-2015.pdf Accessed 2 July 2018.

Table 1. Species Observations from Field Monitoring Points at Wells Farm, Lincoln, VT.

Species	Number of Years Observed	Total Observations (3 points X 4 years)	Grassland-nesting	Observed Flying Over	Observed in Adjacent Trees/Shrubs
American Crow	3	8		x	
American Goldfinch	2	3		x	
American Robin	3	9			
Baltimore Oriole	1	1			x
Black-capped Chickadee	2	2			x
Blue Jay	2	2		x	x
Bobolink	1	1	Yes		
Chestnut-sided Warbler	3	7			x
Common grackle	1	1			
Common Yellowthroat	4	12			x
Eastern Kingbird	1	1			x
Hairy or Downy Woodpecker	2	4			x
Indigo Bunting	2	3			x
Northern Flicker	2	2		x	
Ovenbird	2	4			x
Pileated Woodpecker	2	2			x
Red-eyed Vireo	3	11			x
Red-winged Blackbird	4	21	Yes		
Ruby-throated Hummingbird	1	1		x	
Ruffed Grouse	1	1			x
Savannah Sparrow	1	1	Yes		
Song Sparrow	2	3	Can be		
Tree Swallow	1	1		x	
Tufted Titmouse	1	1			x
White-breasted Nuthatch	1	1			x
Wilson's Snipe*	2	2	Wet grass- or shrub-land		
Wood Thrush	1	2			x

**Heard from neighboring field to south*

The most commonly observed species was Red-Winged Blackbird, noted at each of the three sampling points on all seven sampling dates. Common Yellowthroat and Red-eyed Vireo were noted on 12 and 11 of the 21 total sample-point days, respectively. American Robin and American Crow, the latter almost always flying over the fields, were observed nine and eight times, respectively.

Discussion

The Wells Farm fields have not been productive grassland-nesting bird habitat between 20015 and 2018. This result is likely strongly related to their small size and their location in a mostly forested rather than mostly grassland landscape. Another factor that likely contributes to the sub-optimal grassland bird habitat is that the grass on the Wells fields is cut and not harvested as hay. Stutzman⁵ found in her literature search that Bobolink prefer fields from which hay has been harvested, and the Cornell Lab of Ornithology website tells that females start a nest by plucking the vegetation to bare the soil and make a depression⁶. Also, grassland nesters seem to benefit from hay removal presumably so that they can run from predators more easily. Hay at Wells Farm has not been harvested **since 2006 or so**.

Despite the current absence of grassland-nesting birds, the fields and their edges do provide for a diversity of other biota, such as invertebrates including dragonflies and butterflies, as well as birds that benefit from the shrub patches and the hedgerow trees that occur on the peripheries of the fields. Red-winged blackbird thrive in the Wells Farm wet fields. They are most abundant around the small farm pond and the row of tall trees that extends south from the pond. Apple trees behind the house and lining the driveway are also features on which the blackbirds perch and display.

The data from four years indicate that the Wells Farm fields have not been supporting grassland-nesting birds. We do not know the degree to which this finding is related to different factors, such as the management of the fields themselves, the landscape pattern dominated by forest with a smaller proportion of fields, the size and management of adjacent fields.

⁵ Stutzman, K. 2014. Field management at Wells. Report to Vermont Family Forests, Bristol, VT.

⁶ <https://www.allaboutbirds.org/guide/Bobolink/lifehistory>