



Breeding Landbird Monitoring in the Northeast Temperate Network

2012 Summary Report

Natural Resource Data Series NPS/NETN/NRDS—2013/468



ON THE COVER

Scarlet Tanager

Photograph by: Steven Kersting

Breeding Landbird Monitoring in the Northeast Temperate Network

2012 Summary Report

Natural Resource Data Series NPS/NETN/NRDS—2013/468

Steven D. Faccio

Vermont Center for Ecostudies
PO Box 420
Norwich, VT 05055

Brian R. Mitchell

National Park Service
Northeast Temperate Network
54 Elm St
Woodstock, VT 05091

April 2013

U.S. Department of the Interior
National Park Service
Natural Resource Stewardship and Science
Fort Collins, Colorado

The National Park Service, Natural Resource Stewardship and Science office in Fort Collins, Colorado, publishes a range of reports that address natural resource topics. These reports are of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

The Natural Resource Data Series is intended for the timely release of basic data sets and data summaries. Care has been taken to assure accuracy of raw data values, but a thorough analysis and interpretation of the data has not been completed. Consequently, the initial analyses of data in this report are provisional and subject to change.

All manuscripts in the series receive the appropriate level of peer review to ensure that the information is scientifically credible, technically accurate, appropriately written for the intended audience, and designed and published in a professional manner.

This report received informal peer review by subject-matter experts who were not directly involved in the collection, analysis, or reporting of the data. Data in this report were collected and analyzed using methods based on established, peer-reviewed protocols and were analyzed and interpreted within the guidelines of the protocols.

Views, statements, findings, conclusions, recommendations, and data in this report do not necessarily reflect views and policies of the National Park Service, U.S. Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the U.S. Government.

This report is available from the Northeast Temperate Network website (<http://science.nature.nps.gov/im/units/netn/monitor/programs/breedingLandbird/breedingLandbird.cfm>) and the Natural Resource Publications Management website (<http://www.nature.nps.gov/publications/nrpm>).

Please cite this publication as:

Faccio, S. D. and B. R. Mitchell. 2013. Breeding landbird monitoring in the Northeast Temperate Network: 2012 summary report. Natural Resource Data Series NPS/NETN/NRDS—2013/468. National Park Service, Fort Collins, Colorado.

Contents

	Page
Figures.....	v
Tables.....	vii
Acknowledgments.....	ix
Introduction.....	1
Methods.....	3
Avian Ecological Integrity Assessment.....	7
Results by Park.....	11
Acadia National Park (Maine).....	11
Eleanor Roosevelt National Historic Site (New York).....	14
Home of Franklin D. Roosevelt National Historic Site (New York).....	18
Marsh-Billings-Rockefeller National Historical Park (Vermont).....	22
Minute Man National Historical Park (Massachusetts).....	26
Morristown National Historical Park (New Jersey).....	30
Saint-Gaudens National Historic Site (New Hampshire).....	34
Saugus Iron Works National Historic Site (Massachusetts).....	38
Saratoga National Historical Park (New York).....	42
Weir Farm National Historic Site (Connecticut).....	51
Literature Cited.....	55
Appendix A—Park Summaries.....	57
Appendix B—Site Summaries.....	89
Appendix C—Forest Avian Ecological Integrity Assessment by Site.....	147
Appendix D—Grassland Avian Ecological Integrity Assessment by Site.....	159

Figures

	Page
Figure 1. Northeast Temperate Network parks where the breeding bird monitoring protocol is being implemented and their associated Bird Conservation Regions.....	2
Figure 2. Point count stations at Acadia National Park, Mt. Desert Island and Schoodic Peninsula. Google Earth image.....	12
Figure 3. Relative abundance of the 10 most common species detected at Acadia National Park, 2007-2012; Mt. Desert Island and Schoodic Peninsula sites combined.	13
Figure 4. Point count stations at Eleanor Roosevelt National Historic Site. Red line indicates monitoring route.	15
Figure 5. Relative abundance of the 10 most common species at Eleanor Roosevelt National Historic Site, 2006-2012.	16
Figure 6. Point count stations at the Home of Franklin D. Roosevelt National Historic Site	19
Figure 7. Relative abundance of the 10 most common species detected at the Home of Franklin D. Roosevelt National Historic Site, 2006-2012.....	20
Figure 8. Point count stations at Marsh-Billings-Rockefeller National Historical Park. Red lines indicate monitoring routes	23
Figure 9. Relative abundance of the 10 most common species detected at Marsh-Billings-Rockefeller National Historical Park, 2006-2012, for all sites combined.....	24
Figure 10. Point count stations at Minute Man National Historical Park. Red lines indicate monitoring routes. Google Earth image.....	27
Figure 11. Relative abundance of the 10 most common species detected at Minute Man National Historical Park, 2006-2012, for all sites combined.....	28
Figure 12. Point count stations at Morristown National Historical Park. Colored lines indicate monitoring routes. Google Earth image.....	31
Figure 13. Relative abundance of the 10 most common species detected at Morristown National Historical Park, 2006-2012, for all sites combined.....	32
Figure 14. Point count stations at Saint-Gaudens National Historic Site. Red line indicates monitoring route. Google Earth image.....	35
Figure 15. Relative abundance of the 10 most common species detected at Saint-Gaudens National Historic Site, 2007-2012.	36

Figures (continued)

	Page
Figure 16. Point count stations at Saugus Iron Works National Historic Site. Red line indicates monitoring route. Google Earth image.	39
Figure 17. Relative abundance of the 11 most common species detected at Saugus Iron Works National Historic Site, 2008-2012.....	40
Figure 18. Point count stations at Saratoga National Historical Park. Red lines indicate forest monitoring routes, and green lines indicate grassland monitoring routes. Google Earth image.	44
Figure 19. Relative abundance of the 10 most common species detected at Saratoga National Historical Park, 2006-2012, for all sites combined.....	45
Figure 20. Point count stations at Vanderbilt Mansion National Historic Site. Red line indicates monitoring route. Google Earth image.	48
Figure 21. Relative abundance of the 10 most common species detected at Vanderbilt Mansion National Historic Site, 2006-2012.	49
Figure 22. Point count stations at Weir Farm National Historic Site. Red line indicates monitoring route. Google Earth image.	52
Figure 23. Relative abundance of the most common species detected at Weir Farm National Historic Site, 2006, 2009, 2010, and 2012.....	53

Tables

	Page
Table 1. Number of surveys conducted at each study site annually, 2006-2012. “NA” indicates sites that were not established during a given year. Total coverage is the proportion of years each site (or park) was at least partially surveyed.....	4
Table 2. Forest Avian Ecological Integrity thresholds for 13 response guilds (based on O’Connell et al. 2000, and Glennon and Porter 2005). Percentages are proportional species richness.....	8
Table 3. Grassland Avian Ecological Integrity thresholds for six response guilds (based on Browder et al. 2002, and Coppedge et al. 2006). Percentages are proportional species richness and “Edge generalist” threshold values have been revised (see text).....	9
Table 4. Park-wide Forest Avian Ecological Integrity Assessment for Acadia National Park, 2007-2012.....	13
Table 5. Park-wide Forest Avian Ecological Integrity Assessment for Eleanor Roosevelt National Historic Site, 2006-2012.	17
Table 6. Park-wide Forest Avian Ecological Integrity Assessment for the Home of Franklin D. Roosevelt National Historic Site, 2006-2012.....	21
Table 7. Park-wide Forest Avian Ecological Integrity Assessment for Marsh-Billings-Rockefeller National Historical Park, 2006-2012.....	25
Table 8. Park-wide Forest Avian Ecological Integrity Assessment for Minute Man National Historical Park, 2006-2012.	29
Table 9. Grassland Avian Ecological Integrity Assessment for grassland study site at Minute Man National Historical Park, 2012.....	29
Table 10. Park-wide Forest Avian Ecological Integrity Assessment for Morristown National Historical Park, 2006-2012.	33
Table 11. Park-wide Forest Avian Ecological Integrity Assessment for Saint-Gaudens National Historic Site, 2007-2012.	37
Table 12. Park-wide Forest Avian Ecological Integrity Assessment for Saugus Iron Works National Historic Site, 2008-2012.....	41
Table 13. Park-wide Forest Avian Ecological Integrity Assessment for forested study sites at Saratoga National Historical Park, 2006-2012.	46
Table 14. Park-wide Grassland Avian Ecological Integrity Assessment for grassland study sites at Saratoga National Historical Park, 2006-2012.....	46

Tables (continued)

Page

Table 15. Park-wide Forest Avian Ecological Integrity Assessment for Vanderbilt Mansion National Historic Site, 2006-2012. 50

Table 16. Forest Avian Ecological Integrity Assessment for Weir Farm National Historic Site, 2006-2012. 54

Acknowledgments

The success of the Northeast Temperate Network (NETN) Landbird Monitoring Program depends on the generosity of project volunteers, whose data were used to produce this report. We extend our sincere thanks to the 36 volunteers listed below, who crawled out of bed well before sunrise, endured hordes of biting mosquitoes and black flies, and contributed their time, efforts, and expert birding skills.

Peg Ackerson*	Andy Lamy*
Thom Almendinger	Randolph Little
Tom Bjorkman*	Richard MacDonald
Melissa Brooks*	Barbara Mansell*
Paul Corcoran	Liz Martens*
Sherrie Downing	Kent McFarland*
Pat Fitzgerald	Matthew Medler
Jason Forbes*	Ben Olewine
Ted Gaine*	Marne Onderdonk
Leda Beth Gray*	Kelly Perkins
Lora Haller	Jose Ramirez*
Julie Hart	James Restivo*
Dave Hayes*	Jody Schubert*
Zachary Holderby*	Tom Sharp*
Patrick Johnson	Tim Spahr
Jason Kessler*	Steve Smith*
Jonathan Klizas*	Bob Stymeist*
Scott Kruitbosch	Linda White*

* Indicates volunteers who conducted surveys in 2012

Introduction

The National Park Service (NPS) Northeast Temperate Network (NETN) is tasked with monitoring a suite of representative natural resource indicators, called vital signs, for 12 parks in seven northeastern states plus the Appalachian National Scenic Trail (APPA). Breeding birds were chosen as one of the NETN vital signs because they are a reliable indicator of ecological integrity and they are a high profile taxonomic group. Many bird species are easily detected and identified, and well-established survey methods are available. This report covers breeding landbird monitoring in 11 of the NETN parks (Figure 1). Difficult logistics prevent this protocol from being feasible for the Boston Harbor Islands and APPA (Faccio et al. 2010).

The Northeast Temperate Network and the Vermont Center for Ecostudies (VCE) began monitoring breeding landbirds in most NETN parks in 2006, using volunteer birders to conduct point count surveys. On a broad scale, the 11 monitored parks are located within the temperate deciduous forest biome. At a finer scale, the parks range across four Bird Conservation Regions (BCRs) (Figure 1). Bird Conservation Regions, developed by the North American Bird Conservation Initiative (NABCI 2000), are ecologically defined units that provide a consistent spatial framework for bird conservation across North American landscapes. By employing broad scale units that are ecologically meaningful to bird populations, 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.

This report summarizes data collected from 2006 through 2012. As we accumulate more years of data, we anticipate that the annual report will expand to incorporate more data interpretation. Readers are cautioned to treat the ecological integrity assessment results as provisional for two reasons: 1) 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 2) many NETN parks have a primary mandate to manage for the historical landscape rather than biological integrity or ecosystem structure and function; thus, management action may not always be warranted when guilds are rated “significant concern.” In an attempt to better characterize the bird community at each park and reduce bias, the assessment results presented for each park were produced by combining data from all survey years at a given park (up to 7 years of data). In the future, we plan to work with park managers to produce a parallel assessment based on park management goals.

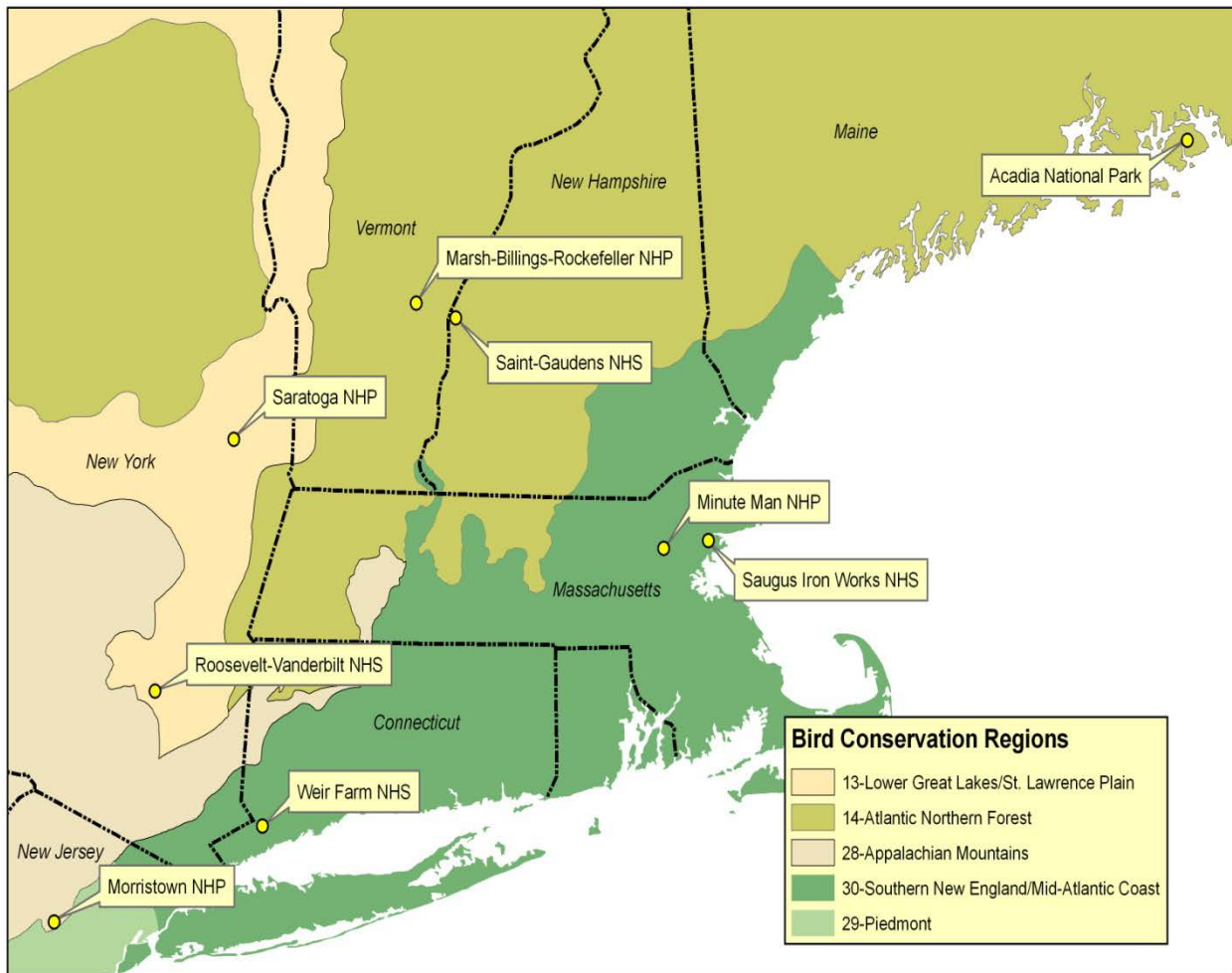


Figure 1. Northeast Temperate Network parks where the breeding bird monitoring protocol is being implemented and their associated Bird Conservation Regions. Roosevelt-Vanderbilt NHS includes Eleanor Roosevelt, Home of Franklin D. Roosevelt, and Vanderbilt Mansion national historic sites.

Methods

Depending on size and habitat, each park contains one or more study sites and each study site contains between three and 12 point count stations, each separated by approximately 250 m. Most sites (26) are forested, but four sites (three at Saratoga NHP and one at Minute Man NHP) are primarily grassland. Volunteer birders visit each station at least once per year between late May and June, except that parks with fewer than 10 point count stations (Saint-Gaudens NHS, Saugus Iron Works NHS, and Weir Farm NHS) are visited at least twice. Repeat visits are particularly helpful for estimating detection probabilities of different species, and are encouraged at all sites. Volunteers record the species of each individual they detect during 10-minute point counts, the time during the count when 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). The data are recorded on field cards and input into the United States Geological Survey (USGS) Point Count Database.

Birders are recruited through local birding groups, listservs, word of mouth, and park staff. Each volunteer takes a bird identification quiz on the Vermont Center for Ecostudies website, and receives a Volunteer Training Manual with detailed instructions and procedures. Volunteers are expected to spend time practicing distance estimation skills and familiarizing themselves with their route prior to conducting their survey. For quality control and training purposes, the project manager travels to one park each year and conducts side-by-side observations with a volunteer birder. The data from both observers are compared to ensure that similar species were detected, with particular attention paid to similar-sounding species and high-pitched species that may be harder for some volunteers to hear. NETN is also working with partners to develop a birder certification website that provides training tools and testing in visual and auditory bird identification. Volunteer birder skill is evaluated by the project leader and data from poor observers are excluded from analyses and reporting. At this point, only data from a single site from 2006 at Saratoga National Historical Park have been excluded.

Volunteer recruitment and retention has varied widely by park. To date, an average of 79% of the 29 active study sites have been surveyed (at least partially) each year network-wide, with five parks (Roosevelt-Vanderbilt NHS [ROVA], Marsh-Billings-Rockefeller NHP [MABI], Minute Man NHP [MIMA], Saint-Gaudens NHS [SAGA] and Saugus Iron Works [SAIR]) achieving 86% coverage or better, and two parks (Morristown NHP [MORR] and Saratoga NHP [SARA]) achieving 71% and 75% coverage, respectively (Table 1). Acadia NP (ACAD) and Weir Farm NHS (WEFA) have had volunteer recruitment and/or retention problems, resulting in just 60% and 57% coverage, respectively. At ACAD in 2012, one volunteer was unable to conduct his survey due to a family illness, but indicated an interest in continuing with the survey in 2013, while a new participant did not follow through with his commitment to survey two sites. Volunteer recruitment for vacant sites during the 2013 season is ongoing, and we are hopeful that all parks will have 100% coverage.

Table 1. Number of surveys conducted at each study site annually, 2006-2012. "NA" indicates sites that were not established during a given year. Total coverage is the proportion of years each site (or park) was at least partially surveyed.

Park/Study Site (no. of stations)	2006	2007	2008	2009	2010	2011	2012	Total Coverage (%)
Acadia NP (ACAD)								60
Schoodic (n=6)	NA	1	0	0	2	2	0	50
Giant Slide Trail (n=10)	NA	1 ²	1	1	0	1 ²	0	67
Seal Cove Center (n=6)	NA	1	2	2	2	2	2	100
Seal Cove East (n=7)	NA	1	2	2	2	2	2	100
Seal Cove West (n=6)	NA	0	0	0	0	1 ⁵	2	33
Witch Hole Pond (n=9)	NA	0	0	1	0	1	1	50
Youngs Mtn (n=7)	NA	0	0	1	0	0	0	17
Roosevelt-Vanderbilt NHS (ROVA)								95
ELRO (n=11)	1 ²	1	1	1	1	1	1	100
HOFR (n=12)	1	1	1	0	1	1	1	86
VAMA (n=7)	1	1	1	1	1	1	1	100
Marsh-Billings-Rockefeller NHP (MABI)								100
East (n=10)	1	1	1	1	1	1	1	100
Northwest (n=10)	1	1	2 ²	1	1	1	1	100
South (n=5)	1	2	1	1	1	2	2	100
Minute Man NHP (MIMA)								95
Hartwell Tavern (n=7)	1	1	1	1	1	1	1	100
Miriam's Corner (n=8)	1	1	1	1	0	1	1	86
The Bluffs (n=8)	1	2	2	2	1	3 ³	2	100
Battle Road (n=6) ¹	NA	NA	NA	NA	NA	NA	2	100
Morristown NHP (MORR)								71
Mt. Kemble (n=10)	0	0	2	2	1	1	0	57
Primrose Brook (n=10)	1	1	2	2	1	0	2	86
Soldiers Huts (n=9)	1	1	0	0	1	2	1	71
Saint-Gaudens NHS (SAGA) (n=8)	0	1	2	2	2	2	2	86
Saugus Iron Works NHS (SAIR) (n=3)	NA	NA	1	3	2	2	2	100
Saratoga NHP (SARA)								75
Bemis Heights (n=6)	NA	0	1	1	1	1 ²	NA ⁴	80
Burgoyne's Headquarters (n=5) ¹	1	0	1	1	1	1	1	86
Freeman Farm (n=10) ¹	1	1	1	1	1	1	1	100
Middle Ravine (n=10)	NA	1	1	0	0	0	0	33
Neilson Farm (n=10) ¹	1	0	1	1	1	1	1	86
Wilkinson Trail (n=10)	0	0	1	1	1	0	1 ⁶	57
Northwest (n=8)	NA	NA	NA	NA	NA	NA	1	100
Weir Farm NHS (WEFA) (n=5)	2	0	0	2	2	0	2	57
Total Surveys	16	20	29	32	28	32	34	79

¹ Grassland sites

² Partial survey. 9 points at ACAD Giant Slide Trail (2007 and 2011), 6 at ELRO (2006), 5 at MABI NW (2008), and 2 at SARA Bemis Heights (2011).

³ Includes simultaneous quality control survey by project manager.

⁴ Site discontinued in 2012 due to hazardous conditions, and a new site (Northwest) established.

⁵ Data submitted late and were not included in the 2011 Summary Report.

⁶ Survey conducted but data not received in time to include in 2012 Summary Report.

Data summaries were produced for each park (and each site when a park has more than one) using a database developed by the Northeast Temperate Network. The summaries include species detected and abundance for each year, as well as species richness and the Shannon diversity index. To facilitate comparisons across years and among parks and sites, if a site is surveyed multiple times in a year then only the data from the first survey are used for the data summaries (relative abundance figures, Appendix A, and Appendix B, including species richness and the Shannon diversity index). The use of the first survey is arbitrary, but is not biased towards maximizing detections of any particular species or group. Detections of additional species from later surveys are noted in the text, as is the total number of species and individuals detected through the full survey effort. The ecological integrity assessments use all species detected, regardless of whether the detection is in the first or a later survey.

Beginning with this report, we have included the Partner's in Flight (PIF) Priority Species codes in the tables in Appendices A and B. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each park/site. This is due to the fact that we are now including "stewardship" species, those of regional or continental concern, and relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

Avian Ecological Integrity Assessment

This report includes an assessment of the ecological integrity of the forest breeding bird community at each park. There is a separate assessment of the grassland bird community at Saratoga National Historical Park (NHP) and at a newly established site at Minute Man NHP, first surveyed in 2012. The assessments are based on an assemblage of behavioral and physiological response guilds (i.e., groups of species that require similar habitat, food, or other elements for survival). Over time, they will help elucidate changes in a broader, landscape context and indicate the direction that breeding bird habitat at the park may be moving along a disturbance gradient from “highly disturbed” or “urban,” to “pristine” or “natural.”

The forest breeding bird guild-based avian ecological integrity assessment consists of 13 guilds in three ecological integrity categories (Table 2), and for grasslands at Saratoga and Minute Man NHPs, we have also developed a grassland avian ecological integrity assessment, based on a small number of relevant guilds (Table 3). Each guild is broadly categorized as “specialist” or “generalist.” A specialist is a species with a narrow range of habitat tolerances, or one that exhibits a low intrinsic rate of population growth. The presence of a variety of specialist guilds indicates a high-integrity habitat condition, while a preponderance of generalist guilds indicates a low-integrity condition. The integrity categories are compositional (indicating species diversity), functional (highlighting ecological processes), and structural (related to the presence of important physical elements, like snags and shrub layer).

To calculate the avian ecological integrity assessment, species detected at a site or park are first assigned to guilds. Some species may be assigned to more than one guild, depending on their life history traits. The proportional species richness of each guild is then calculated by dividing the number of guild members detected by the total number of species detected. This value is then used to determine a rank of Good, Caution, or Significant Concern based on the proportional species richness thresholds listed in Tables 2 and 3. “Good” represents acceptable or desired conditions, “Caution” indicates a problem may exist, and “Significant Concern” indicates undesired conditions that may be in need of management action.

The thresholds and ranks for forest breeding birds are largely based on those derived by O’Connell et al. (2000) for birds in forested habitats in the central Appalachians, and from those derived by Glennon and Porter (2005) for New York’s Adirondack State Park. The thresholds and ranks for grassland birds were derived from Browder et al. (2002) and Coppedge et al. (2006). This is a first attempt at applying this assessment; threshold values may need to be adjusted by bioregion, forest type, or BCR, and may also be refined over time. In addition, within any given year some guild members are likely missed during surveys, so assessment results based on only one year of data may not be accurate. For that reason, assessments are based on all available data (up to seven years) for each park. Where more than three years of data were used, it is likely that the assessment results provide an accurate picture of the ecological health of the forest bird community. We recognize that the assessment is based on ecological criteria, and that park management goals may not 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.

Beginning with the 2011 annual report, the avian ecological integrity assessments were modified to more closely match the methods of O’Connell et al. (2000). Specifically, we limited both the forest breeding and grassland bird assessments to five groups of birds (perching birds or passerines, woodpeckers, cuckoos, swifts and hummingbirds, and doves). The only exceptions are American Kestrel and Northern Harrier, two grassland-obligate raptors that are now included in the “Grassland Obligate” guild for the grassland assessment. This helps ensure that the species included in the assessments are readily detected by point count surveys and are potential breeders in forested or grassland habitat. In addition, we limited the assessments to species that are assigned to guilds for the specific assessment type; interior forest birds detected on grassland point counts will not count in the species total (used to estimate proportional species richness) for that site.

Table 2. Forest Avian Ecological Integrity thresholds for 13 response guilds (based on O’Connell et al. 2000, and Glennon and Porter 2005). Percentages are proportional species richness.

Biotic Integrity Element	Response Guild Metric	Ratings (% Species Richness)		
		Good	Caution	Significant Concern
Compositional:	Exotic Species	0%	0.5 -7%	> 7%
	Nest Predator/Brood Parasite	< 10%	10 - 15%	> 15%
	Resident	< 28%	28 - 41%	> 41%
	Single-Brooded	> 68%	50 - 68%	< 50%
Functional:	Bark Prober	> 11%	4 - 11%	< 4%
	Ground Gleaner	> 9%	4 - 9%	< 4%
	High Canopy Forager	> 12%	7 - 12%	< 7%
	Low Canopy Forager	> 22%	14 - 22%	< 14%
	Omnivore	< 30%	30 - 50%	> 50%
Structural:	Canopy Nester	> 35%	29 - 35%	< 29%
	Forest-ground Nester	> 18%	5 - 18%	< 5%
	Interior Forest Obligate	> 35%	10 - 35%	< 10%
	Shrub Nester	< 18%	18 - 24%	> 24%

Table 3. Grassland Avian Ecological Integrity thresholds for six response guilds (based on Browder et al. 2002, and Coppedge et al. 2006). Percentages are proportional species richness and “Edge generalist” threshold values have been revised (see text).

Response Guild Metric	Ratings (% Species Richness)		
	Good	Caution	Significant Concern
Edge generalist species	< 35%	35 - 70%	> 70%
Shrub-dependent species	< 10%	10 - 25%	> 25%
Grassland obligate species	> 10%	5 - 10%	< 5%
Exotic species	< 0.1%	0.1 - 3%	> 3%
Proportion of PIF Priority Grassland Obligate Species ¹ for:			
BCR 13 (# detected/8)	> 70%	50 - 70%	< 50%
BCR 30 (# detected/5)			
Proportion of PIF Priority Shrub-dependent Species ¹ for:			
BCR 13 and 30 (# detected/7)	> 75%	50 - 75%	< 50%

¹ New metric beginning with 2012 annual report (see text).

Additionally, as part of our review of the grassland assessment, 16 species were added to the “Edge Generalist” grassland guild beginning with the 2011 annual report: American Woodcock, Black-billed Cuckoo, Black-capped Chickadee, Glue-gray Gnatcatcher, Blue Jay, Common Grackle, Great Crested Flycatcher, Gray Catbird, Northern Bobwhite, Northern Cardinal, Red-winged Blackbird, Ruby-Throated Hummingbird, Tufted Titmouse, Yellow-billed Cuckoo, Yellow-shafted Flicker, and Yellow-throated Vireo; while Alder Flycatcher and Willow Flycatcher were added to the “Shrub-dependent” grassland guild. After reviewing the thresholds for both assessments in 2012, we revised the threshold values of the “Edge Generalist” grassland guild due to the number of species that were added to that guild. The revised threshold values are reflected in Table 3, and revised values were used for this year’s assessments. Because the assessments reported this year combine all data collected to date, revised assessments for previous years were not calculated. When changes in the assessment from the previous annual report may have been due to the altered threshold values, this is noted in the report.

Beginning with the 2012 survey year, the grassland assessment includes two additional guilds: “Partners in Flight (PIF) Priority Grassland Obligate Species” and “PIF Priority Shrub-dependent Species.” These metrics evaluate the proportion of grassland and shrub-dependent species detected on grassland surveys that are listed as conservation priorities for BCRs 13 and 30 (see Figure 1). Detecting a high proportion of shrub-dependent species on grassland surveys is not generally desirable (hence the threshold ratings for the “Shrub-dependent” guild in Table 3). However, because seven of the 13 species (54%) included in the shrub-dependent guild are of high conservation concern in the region, there is value in providing habitat for these rare and/or declining species.

For more information about the Avian Ecological Integrity Assessment, as well as project methodologies, sampling scheme, and more, see the Breeding Landbird Monitoring Protocol (Faccio et al. 2013), available at the NPS Northeast Temperate Network website at <http://science.nature.nps.gov/im/units/netn/monitor/programs/breedingLandbird/breedingLandbird.cfm>. The Google Earth Park Maps webpage (accessible through the leftmost suite of menu choices on NETN's homepage) also contains bird point count stations for all participating NETN park units.

Results by Park

Acadia National Park (Maine)

A total of 51 point count stations in seven study sites were established in 2007 at Acadia National Park (ACAD) in Maine (Figure 2). Of these, five of the six sites on Mt. Desert Island (MDI) have been surveyed in at least 2 years (Youngs Mountain has only been surveyed once), and the one site on the Schoodic Peninsula has been surveyed during 3 years, for a park-wide coverage rate of 60% (see Table 1 for a summary of survey coverage by year). Although we recruited enough volunteers to achieve 100% coverage in 2012, surveys were completed at only four of the seven study sites. One volunteer was unable to complete the survey of the Giant Slide Trail site due to a family illness, and a newly recruited volunteer did not follow through in conducting surveys at two study sites (Schoodic and Youngs Mountain).

During 2012, observers conducted a total of 47 point counts, detecting a total of 392 birds representing 44 species, including four species detected for the first time during monitoring at the park (Broad-winged Hawk, Scarlet Tanager, Song Sparrow, and Rose-breasted Grosbeak). A total of 69 species have been recorded over the 6 years of monitoring, including a Yellow-bellied Sapsucker which was detected only on a repeat site visit to Seal Cove East in 2008.

Average abundance during the first site visit increased from 7.3 birds per point in 2011 to 7.5 birds per point in 2012, the second lowest since point counts began at ACAD in 2007 (Appendix A). Despite the slight increase in number of individuals in 2012, species richness dropped slightly from 47 to 43 species detected during the first round of surveys. Only one species of regional or USA/Canada conservation concern (Scarlet Tanager) was detected during the 2012 surveys, while two species exhibiting significant declines across the region were detected: Ruffed Grouse and Pine Siskin. Appendices A and B detail the species and relative abundances found throughout the park and at each site during the first survey of each year, plus additional summary statistics.

Of the 10 most abundant species detected at all ACAD sites combined across all years, the relative abundances of four (Red-breasted Nuthatch, Hermit Thrush, Black-throated Green Warbler, and Dark-eyed Junco) increased from 2011, and the relative abundances of eight of the 10 species were below the 6-year average (Figure 3, Appendix A).

The park-wide forest avian ecological integrity assessment for all years combined at Acadia National Park resulted in seven categories ranked as “Good,” six ranked as “Caution,” and none ranked as “Significant Concern,” continuing to indicate that the forest bird community appears to be doing well (Table 4). The assessment has also been calculated for each study site, and these results are in Appendix C.



Figure 2. Point count stations at Acadia National Park, Mt. Desert Island and Schoodic Peninsula. Google Earth image.

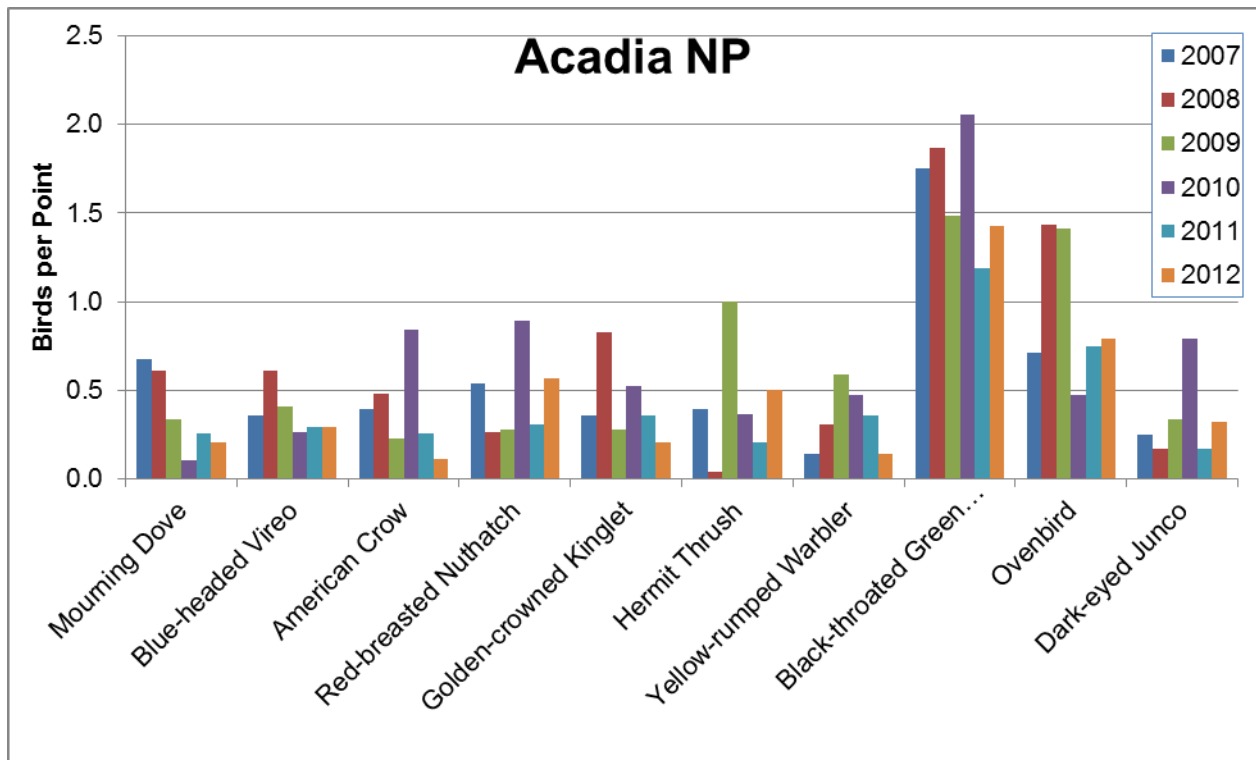


Figure 3. Relative abundance of the 10 most common species detected at Acadia National Park, 2007-2012; Mt. Desert Island and Schoodic Peninsula sites combined.

Table 4. Park-wide Forest Avian Ecological Integrity Assessment for Acadia National Park, 2007-2012.

Acadia NP		2007 to 2012	
<i>Integrity Element: Compositional</i>			
<i>Response Guild</i>		<i>Percentage Rating</i>	
Exotic		0%	Good
Nest Predator / Brood Parasite		5%	Good
Resident		27%	Good
Single Brooded		57%	Caution
<i>Integrity Element: Functional</i>			
<i>Response Guild</i>		<i>Percentage Rating</i>	
Bark Prober		11%	Good
Ground Gleaner		6%	Caution
High Canopy Forager		11%	Caution
Low Canopy Forager		24%	Good
Omnivore		35%	Caution
<i>Integrity Element: Structural</i>			
<i>Response Guild</i>		<i>Percentage Rating</i>	
Canopy Nester		37%	Good
Forest-ground Nester		14%	Caution
Interior Forest Obligate		38%	Good
Shrub Nester		22%	Caution

Eleanor Roosevelt National Historic Site (New York)

A study site was established at Eleanor Roosevelt National Historic Site (ELRO; one of the Roosevelt-Vanderbilt National Historic Sites) in 2006 and surveyed annually (Table 1). The study site at ELRO originally consisted of six point count stations, but five additional sampling points were added for the 2007 field season, increasing the total to 11 point count stations (Figure 4).

During 2012, a total of 145 individuals representing 35 species were detected, including four species detected for the first time during monitoring at the park (Eastern Phoebe, Common Yellowthroat, Chipping Sparrow, and Brown-headed Cowbird). In total, 52 species have been recorded during the 7 years, with an average abundance of 10.01 birds per point (Appendix A). In 2012, relative abundance (13.18 birds per point) was the highest in the survey's 7-year history, while species richness (35) declined from 20 11. Among the ten most commonly detected species across all years, the relative abundances of four (Blue Jay, American Crow, Tufted Titmouse, and White-breasted Nuthatch) declined from 2011 (Figure 5, Appendix A). A total of three species of regional or USA/Canada conservation concern were detected during 2012 surveys at ELRO: Eastern Wood-Pewee, Wood Thrush, and Prairie Warbler. A list of species, their relative abundances, and other summary statistics are provided in Appendix A. 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 ELRO resulted in three categories ranked as "Good," six ranked as "Caution," and four ranked as "Significant Concern" (Table 5). Both the "canopy nester" and "shrub nester" guilds continue to be ranked as "Significant Concern." A low proportion of canopy nesting species, which includes birds that require a well-developed canopy layer, may be indicative of the park's location within a fragmented landscape, while a lack of shrub nesters may reflect poor structural diversity within the forest, possibly due to a deer over-browse problem. On the other hand, the "low canopy foragers" guild, which includes birds that specialize in feeding within the forest sub-canopy, showed improvement, moving up to "Caution."

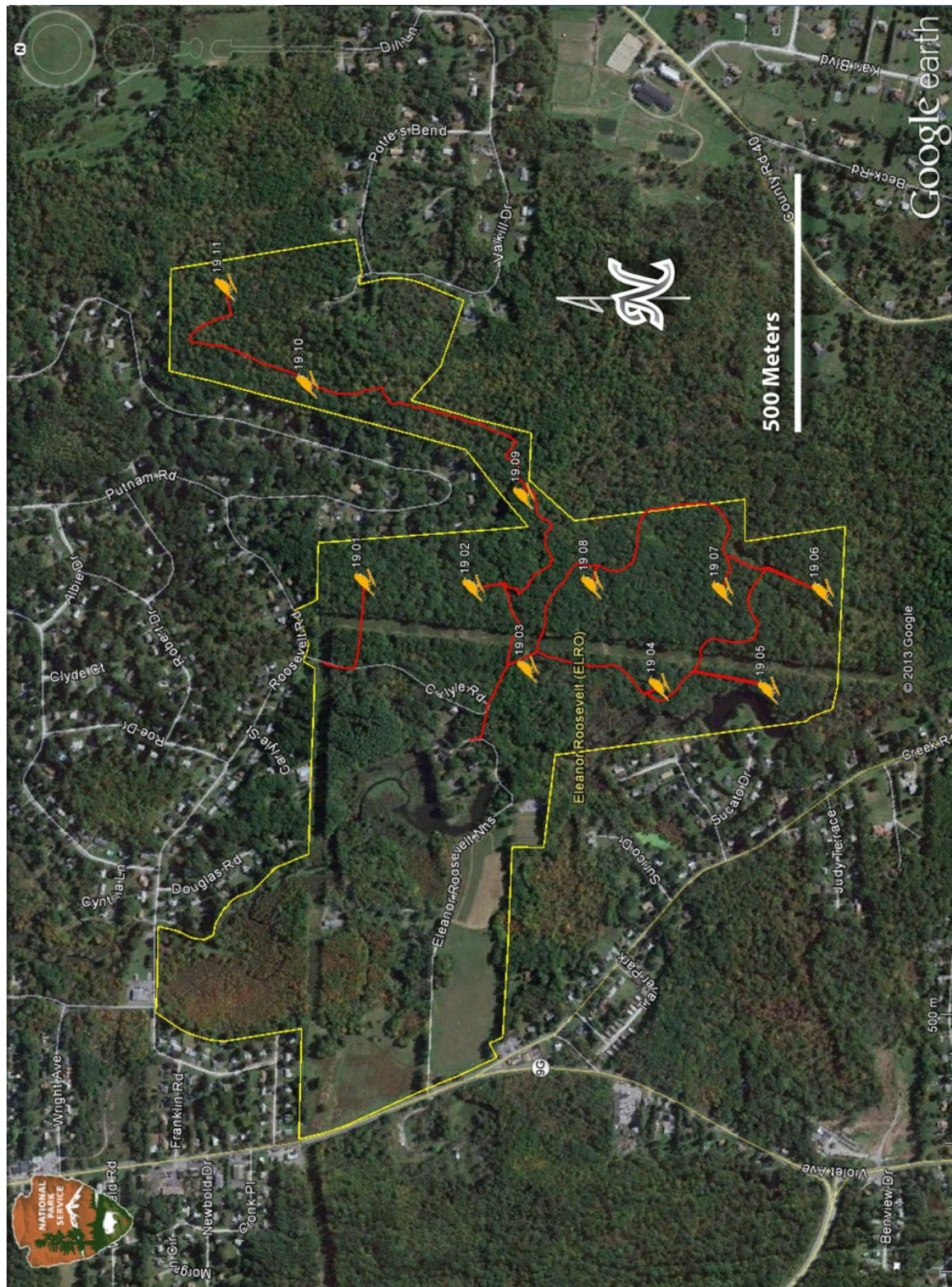


Figure 4. Point count stations at Eleanor Roosevelt National Historic Site. Red line indicates monitoring route. Google Earth image.

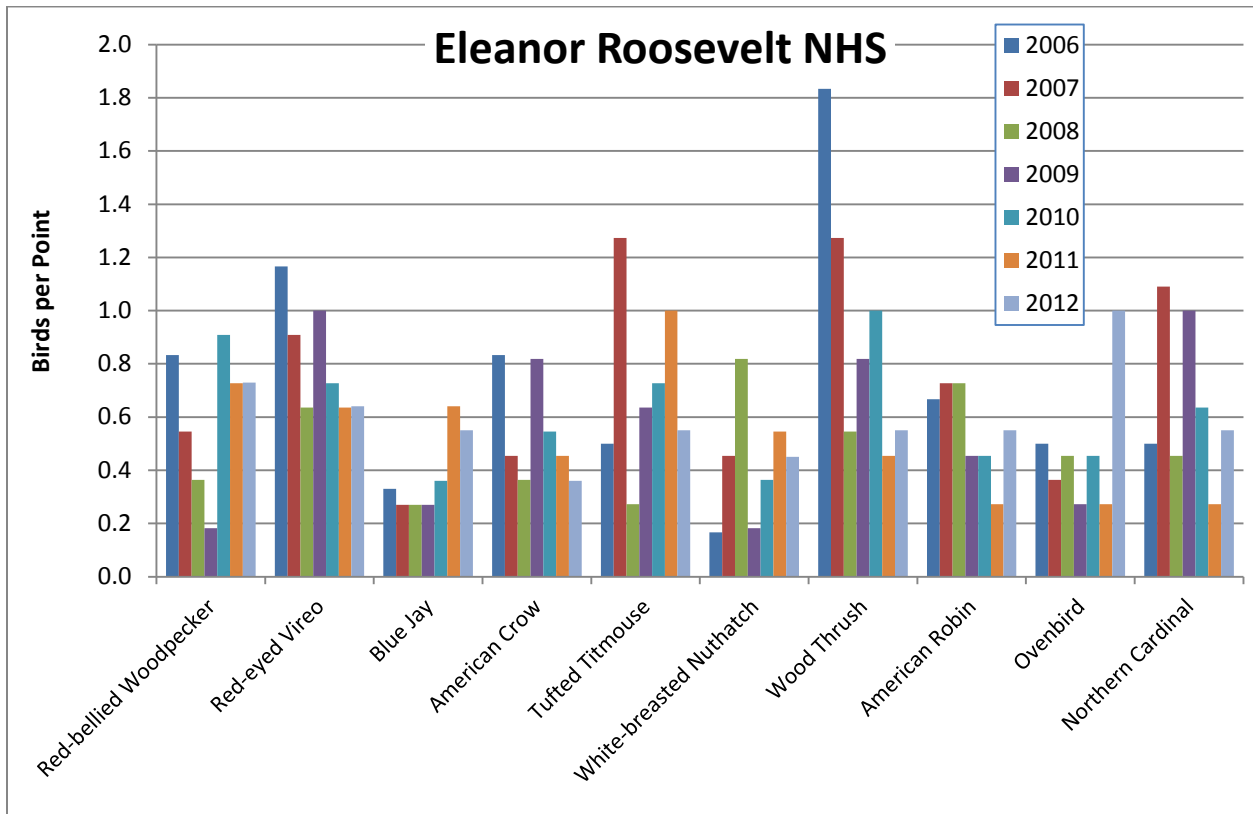


Figure 5. Relative abundance of the 10 most common species at Eleanor Roosevelt National Historic Site, 2006-2012.

Table 5. Park-wide Forest Avian Ecological Integrity Assessment for Eleanor Roosevelt National Historic Site, 2006-2012.

Eleanor Roosevelt NHS

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	36%	Caution
Single Brooded	47%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	16%	Caution
Omnivore	42%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	22%	Sig Concern
Forest-ground Nester	11%	Caution
Interior Forest Obligate	22%	Caution
Shrub Nester	29%	Sig Concern

Home of Franklin D. Roosevelt National Historic Site (New York)

One study site with 12 point count stations was established at the Home of Franklin D. Roosevelt National Historic Site (HOFR; one of the Roosevelt-Vanderbilt National Historic Sites) (Figure 6) and surveyed in all years except 2009 (Table 1).

A total of 62 individual birds representing 20 species were detected in 2012, including two species detected for the first time during monitoring at the park (Ruby-crowned Kinglet and Chipping Sparrow). In total, 46 species have been recorded, with an average abundance of 6.92 birds per point. Both relative abundance and species richness declined in 2012 to the lowest in the survey's 6-year history (Appendix A). However, of the 10 most commonly detected species across all years, the relative abundances of only three (Blue Jay, Tufted Titmouse, and American Robin) declined from 2011 (Figure 7), while the relative abundances for half were above the 6-year average. There was a big drop in Tufted Titmouse detections in 2012 (only 1 individual), along with an increase of White-breasted Nuthatches (7 individuals). Only one species of regional or USA/Canada conservation concern (Wood Thrush) was detected in 2012. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.

The park-wide forest avian ecological integrity assessment for all years combined at HOFR resulted in three categories ranked as "Good," nine ranked as "Caution," and one ranked as "Significant Concern" (Table 5). This represents a modest improvement over 2011 results, with two response guilds within the "Compositional" category ("Nest Predator/Brood Parasite" and "Resident") each bumping up a notch. However, the "Shrub Nester" category dropped from "Caution" to Significant Concern."

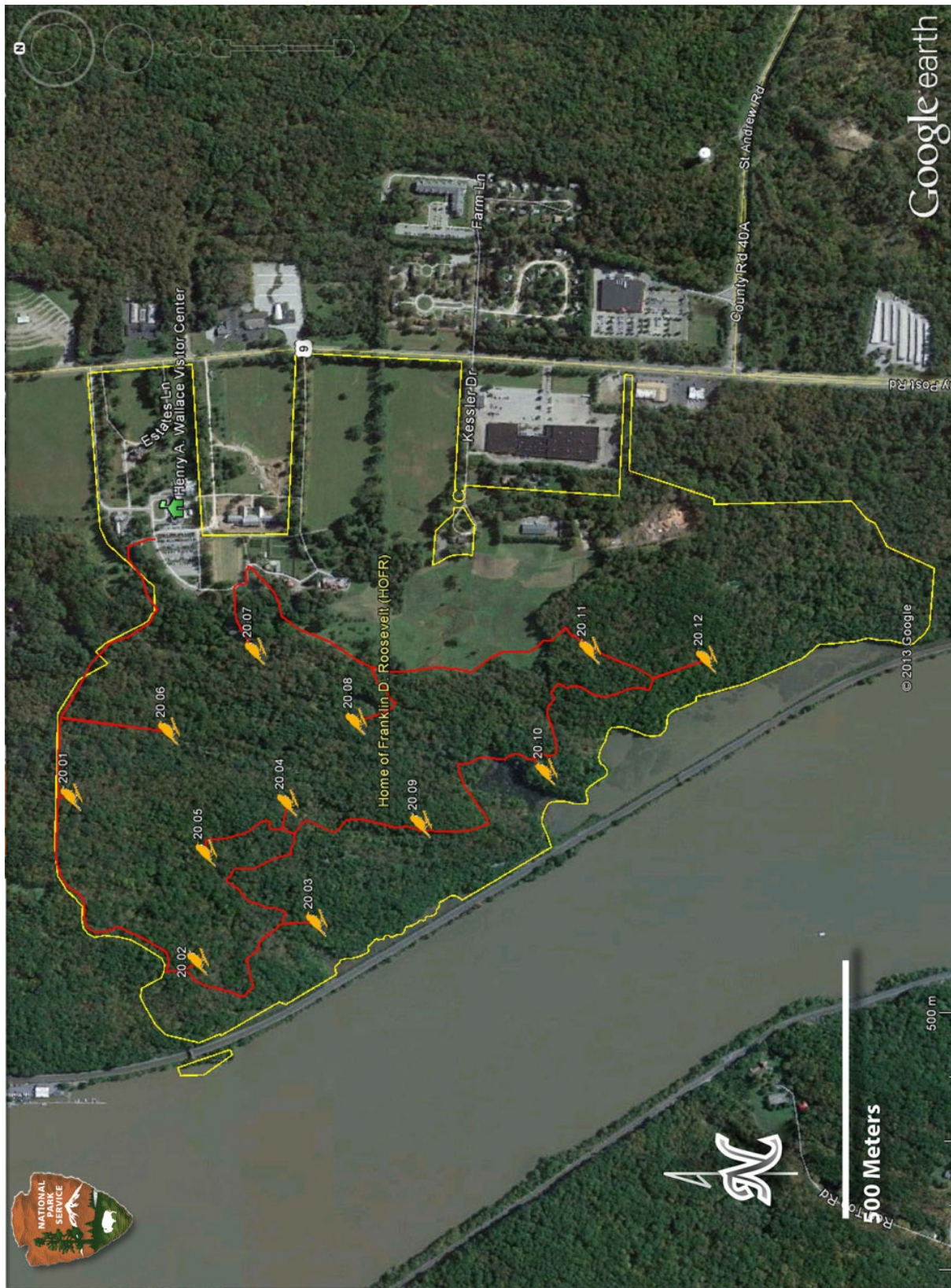


Figure 6. Point count stations at the Home of Franklin D. Roosevelt National Historic Site. Red line indicates monitoring route. Google Earth image.

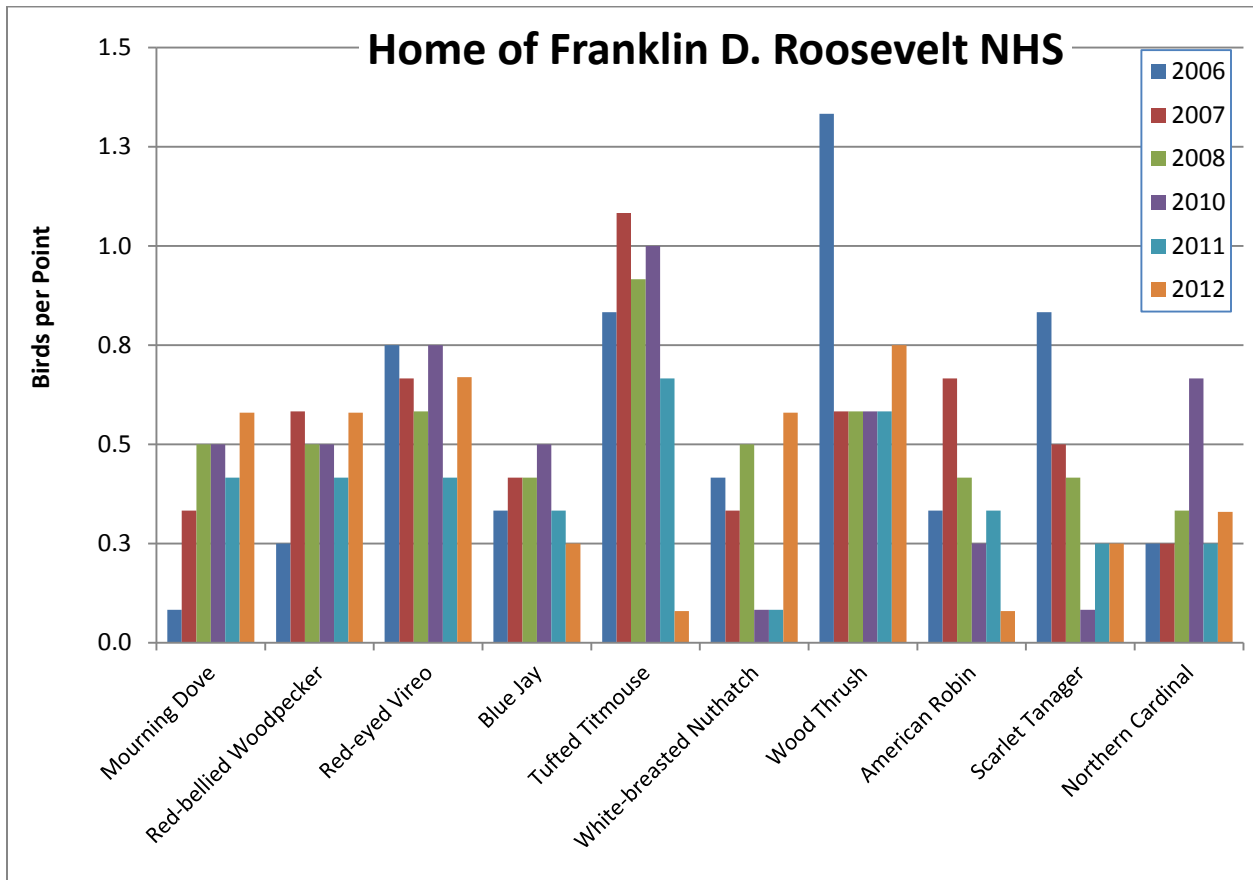


Figure 7. Relative abundance of the 10 most common species detected at the Home of Franklin D. Roosevelt National Historic Site, 2006-2012.

Table 6. Park-wide Forest Avian Ecological Integrity Assessment for the Home of Franklin D. Roosevelt National Historic Site, 2006-2012.

Home of Franklin D. Roosevelt NHS

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Good
Resident	39%	Caution
Single Brooded	51%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	10%	Caution
Low Canopy Forager	17%	Caution
Omnivore	39%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	32%	Caution
Forest-ground Nester	10%	Caution
Interior Forest Obligate	27%	Caution
Shrub Nester	24%	Sig Concern

Marsh-Billings-Rockefeller National Historical Park (Vermont)

Three forested study sites were established at Marsh-Billings-Rockefeller National Historical Park (MABI) and surveyed annually since 2006 (Table 1). Two of these sites (MABI Northwest and MABI East) consist of 10 point count stations each, and one site (MABI South) consists of five point count stations (Figure 8).

During 2012 surveys, observers detected a total of 368 birds representing 34 species, including three that were only detected on repeat surveys (Belted Kingfisher [which was detected for the first time], Yellow-rumped Warbler, and American Redstart). A total of 58 species have been recorded over the 7 years of monitoring. Average abundance during the first site survey across all 7 years was 13.67 birds per point (Appendix A). In 2012, relative abundance (12.12 birds per point) and species richness declined from 2011. Of the ten most commonly detected species across all years, the relative abundances of only three species (Blue Jay, Hermit Thrush, and American Robin) increased over 2011 values (Figure 9), while the relative abundance of just three species (Blue Jay, American Robin, and Scarlet Tanager) were above the 7-year average. Ovenbird and Red-eyed Vireo continue to be the most abundant species detected. Three species of regional or USA/Canada conservation concern were detected during point count surveys in 2012: Eastern Wood-Pewee, Wood Thrush, and Scarlet Tanager (all of which have been detected every year). A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B.

The park-wide forest avian ecological integrity assessment for all years combined at MABI resulted in seven categories ranked as “Good,” six ranked as “Caution,” and none ranked as “Significant Concern” (Table 7). This represents no change from the 2011 results. It should be noted that four of the guilds that were ranked as “Caution” (“Low Canopy Forager,” “Omnivore,” “Forest-ground Nester,” and “Shrub Nester”) were again less than 3 percentage points away from a “Good” rating, suggesting that the forest bird community is doing well at MABI. The assessment has also been calculated for each site, individually, and these results are provided in Appendix C.

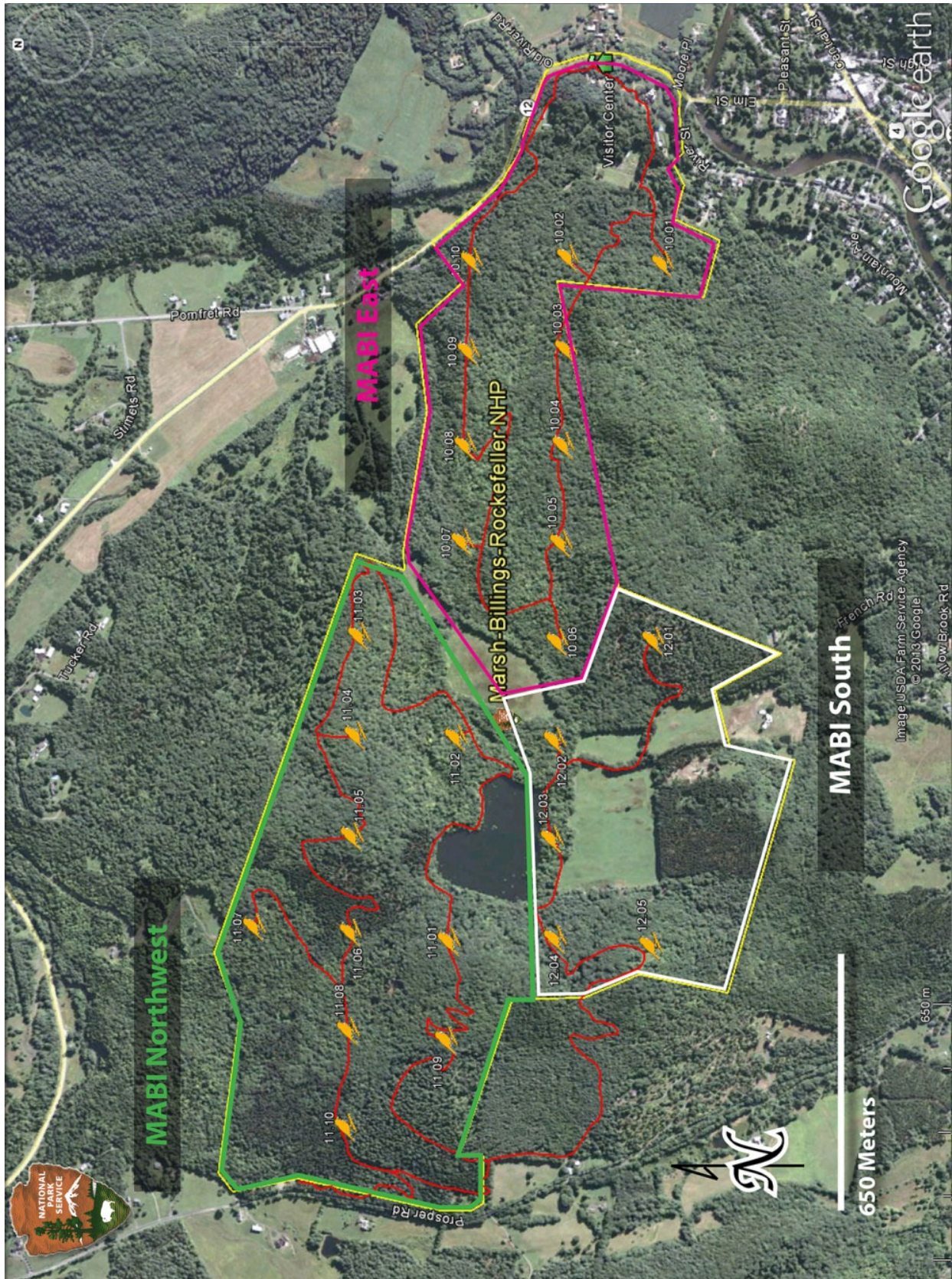


Figure 8. Point count stations at Marsh-Billings-Rockefeller National Historical Park. Red lines indicate monitoring routes. Google Earth image.

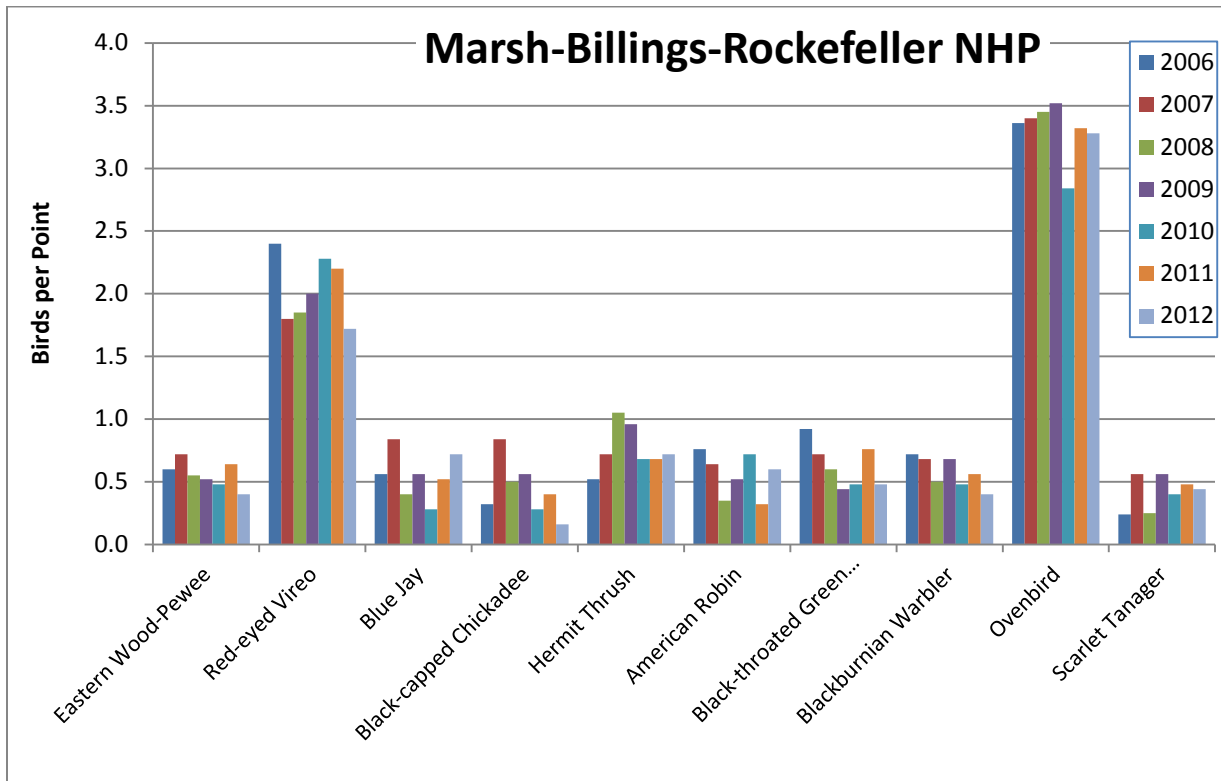


Figure 9. Relative abundance of the 10 most common species detected at Marsh-Billings-Rockefeller National Historical Park, 2006-2012, for all sites combined.

Table 7. Park-wide Forest Avian Ecological Integrity Assessment for Marsh-Billings-Rockefeller National Historical Park, 2006-2012.

Marsh-Billings-Rockefeller NHP

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	28%	Good
Single Brooded	61%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	9%	Good
High Canopy Forager	7%	Caution
Low Canopy Forager	19%	Caution
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	35%	Good
Forest-ground Nester	15%	Caution
Interior Forest Obligate	35%	Good
Shrub Nester	19%	Caution

Minute Man National Historical Park (Massachusetts)

Three study sites were established at Minute Man National Historical Park (MIMA), located in Lexington and Concord, MA. Two of these sites (The Bluff and Miriam's Corner) consist of eight point count stations each, and one site (Hartwell Tavern) consists of seven point count stations (Figure 10). The three study sites were established in 2006 and surveyed annually, with the exception of Miriam's Corner which was not surveyed in 2010 (Table 1). The Bluff was surveyed twice in 2007, 2008, 2009, 2011, and 2012, and the project manager accompanied the volunteer observer in 2011, conducting a simultaneous quality control survey. At the request of park staff, a new "grassland" survey site (Battle Road), consisting of 6 point counts, was established and surveyed in 2012 (Table 1). Although this site does not appear to support habitat for grassland obligate species, it does provide open, park-like habitat dominated by grasses with a few scattered, mature trees (Figure 10).

During 2012 surveys, observers detected a total of 471 birds representing 45 species, including three European Starlings, a species not previously encountered during surveys at MIMA, detected at the newly established Battle Road site. A total of 62 species have been recorded over the 7 years of monitoring.

Average relative abundance during the first site survey across all 7 years was 12.92 birds per point. In 2012, relative abundance (12.64 birds per point) increased slightly from 2011, while species richness also increased, likely due to the increased number of points surveyed and the addition of sampling in open habitat (Appendix A). Of the ten most commonly detected species across all years, the relative abundances of six increased compared to 2011 (Figure 11), while the relative abundances of half were equal to or above the 7-year average. A total of seven species of regional or USA/Canada conservation concern were detected during 2012, including four species that were detected in all years (Eastern Wood-Pewee, Wood Thrush, Scarlet Tanager, and Rose-breasted Grosbeak). A list of species, their relative abundances, and other summary statistics for the first survey of each point are provided in Appendices A and B.

The park-wide forest avian ecological integrity assessment for all years combined at MIMA resulted in one category ranked as "Good," nine ranked as "Caution," and three ranked as "Significant Concern" (Table 8). These results represent no change from the 2011 assessment. While the only "Good" score continued to be the "Nest Predator/Brood Parasite" guild, "Significant Concern" scores were found in two of the three integrity elements (and the score for "High Canopy Forager" is close to a "Significant Concern" rating in the third integrity element. These results are not unexpected, and are likely due to the urbanized and highly fragmented landscape of the park and surrounding area. The assessment has also been calculated for each site, and these results are in Appendix C.

The grassland avian ecological integrity assessment is provided in Table 9. Five of the six guilds were rated "Significant Concern." This assessment is not based on enough years of data to be reliable, and in addition the point counts for the Battle Road site were conducted later in the day than normal, resulting in a low number of bird detections. The ratings may improve as more data are collected, although the fragmented grassland habitat at MIMA is not expected to support grassland obligate species.



Figure 10. Point count stations at Minute Man National Historical Park. Red lines indicate monitoring routes. Google Earth image.

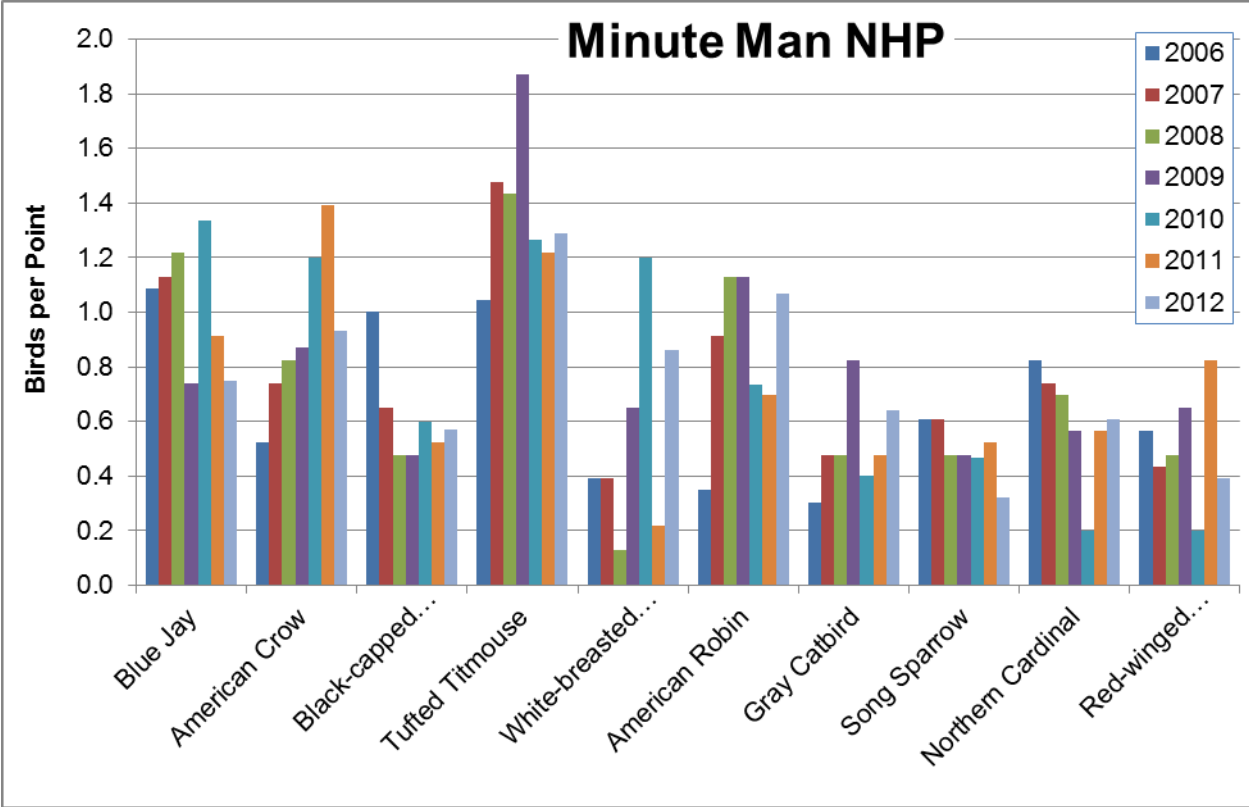


Figure 11. Relative abundance of the 10 most common species detected at Minute Man National Historical Park, 2006-2012, for all sites combined.

Table 8. Park-wide Forest Avian Ecological Integrity Assessment for Minute Man National Historical Park, 2006-2012.

Minute Man NHP		2006 to 2012	
<i>Integrity Element: Compositional</i>			
<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>	
Exotic	4%	Caution	
Nest Predator / Brood Parasite	7%	Good	
Resident	33%	Caution	
Single Brooded	49%	Sig Concern	
<i>Integrity Element: Functional</i>			
<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>	
Bark Prober	11%	Caution	
Ground Gleaner	5%	Caution	
High Canopy Forager	7%	Caution	
Low Canopy Forager	20%	Caution	
Omnivore	36%	Caution	
<i>Integrity Element: Structural</i>			
<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>	
Canopy Nester	25%	Sig Concern	
Forest-ground Nester	5%	Caution	
Interior Forest Obligate	16%	Caution	
Shrub Nester	27%	Sig Concern	

Table 9. Grassland Avian Ecological Integrity Assessment for grassland study site at Minute Man National Historical Park, 2012.

Minute Man NHP		2012	
<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>	
PIF Grassland Obligate	0%	Sig Concern	
PIF Shrub-dependent	0%	Sig Concern	
Edge Generalist	94%	Sig Concern	
Exotic	13%	Sig Concern	
Grassland Obligate	0%	Sig Concern	
Shrub-dependent	6%	Good	

Morristown National Historical Park (New Jersey)

A total of 29 point counts in three study sites were established in 2006 at Morristown National Historical Park (MORR), in Morristown, New Jersey (Figure 12). One of the sites has been surveyed during six of the seven years, one site during five years, and the third during four years, for a park-wide coverage rate of 71% (Table 1). In 2012, the newly-recruited volunteer for one study site (Mt. Kemble) did not follow through and the site was not surveyed for the first time since 2007.

During 2012 surveys, observers detected a total of 353 birds representing 34 species, including a Black-capped Chickadee that was only detected on a repeat survey in 2012. One new species (Common Grackle) was observed for the first time in 2012. A total of 58 species have been recorded during the 6 survey years.

Average abundance during the first site visit was 14.47 birds per point, up from 2011 and above the 7-year average of 12.76 (Appendix A). Of the ten most commonly detected species across all years, the relative abundances of four increased over 2011 (Figure 13), while the relative abundances of only three species (Blue Jay, Veery, and Ovenbird) in 2012 were above the 7-year average. A total of five species of regional or USA/Canada conservation concern were detected during 2012, including three species (Eastern Wood-Pewee, Wood Thrush, and Eastern Towhee) that were detected in all survey years. In addition, Eastern Wood-Pewee and Wood Thrush were among the 10 most abundant species detected (Figure 13). A list of species, their relative abundances, and other summary statistics from the first survey of each point are provided in Appendices A and B.

The park-wide forest avian ecological integrity assessment for all years combined at MORR resulted in four categories ranked as “Good,” seven ranked as “Caution,” and two ranked as “Significant Concern” (Table 9). This represents a slight change compared to 2011, as two categories in the Structural Integrity element dropped down a level; “Canopy Nester” declined to “Significant Concern,” while “Interior Forest Obligate” dropped to “Caution.” The other two guilds within the Structural Integrity element also consisted of “Caution” and “Significant Concern” ranks, possibly reflecting the low structural diversity throughout much of the park; the legacy of a high deer population which has resulted in very limited forest regeneration. Guilds within the “Compositional” and “Functional” metrics however, were dominated by “Caution” or “Good” ranks. The assessment has also been calculated for each site, and these results are provided in Appendix C.

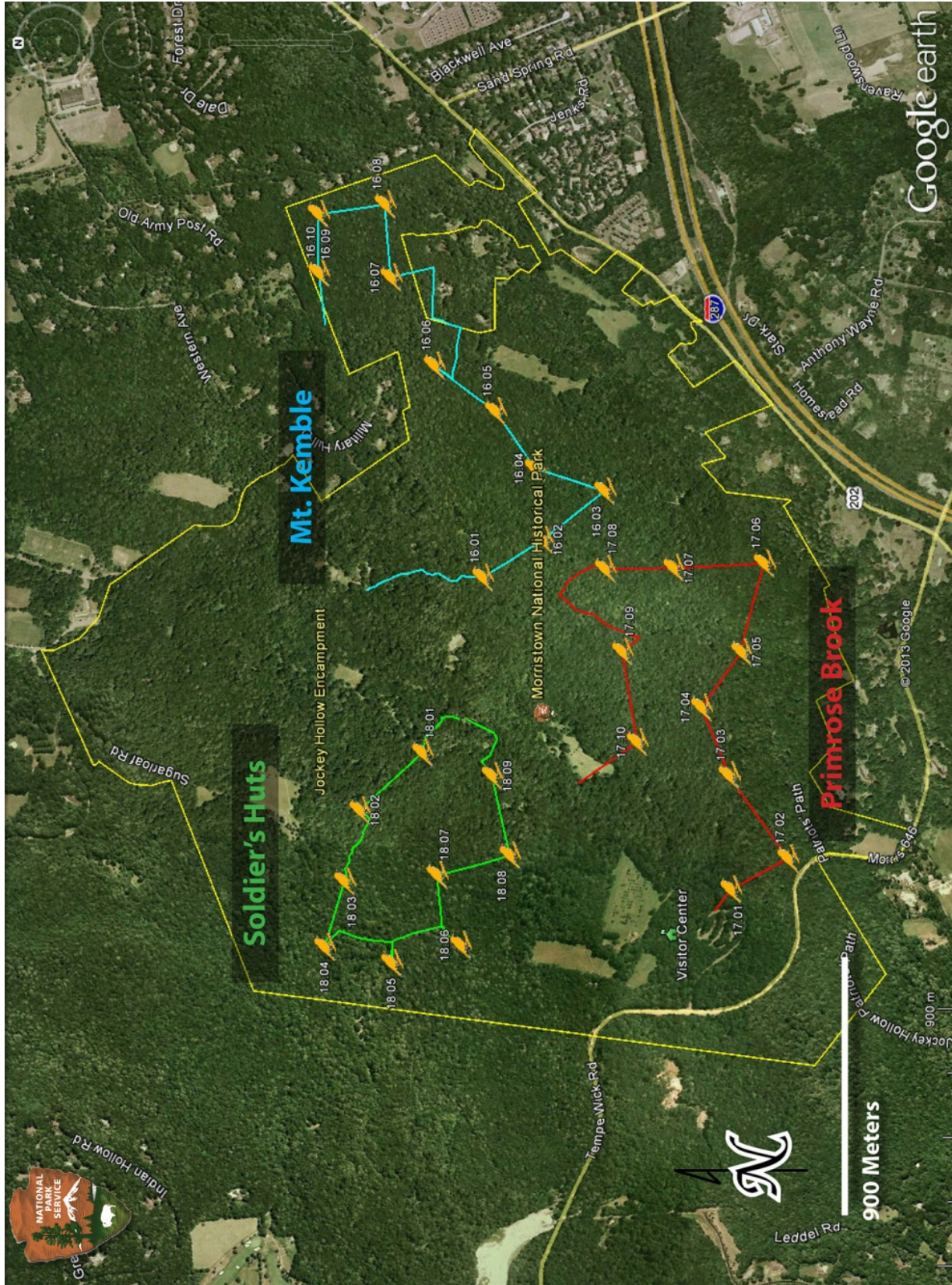


Figure 12. Point count stations at Morristown National Historical Park. Colored lines indicate monitoring routes. Google Earth image.

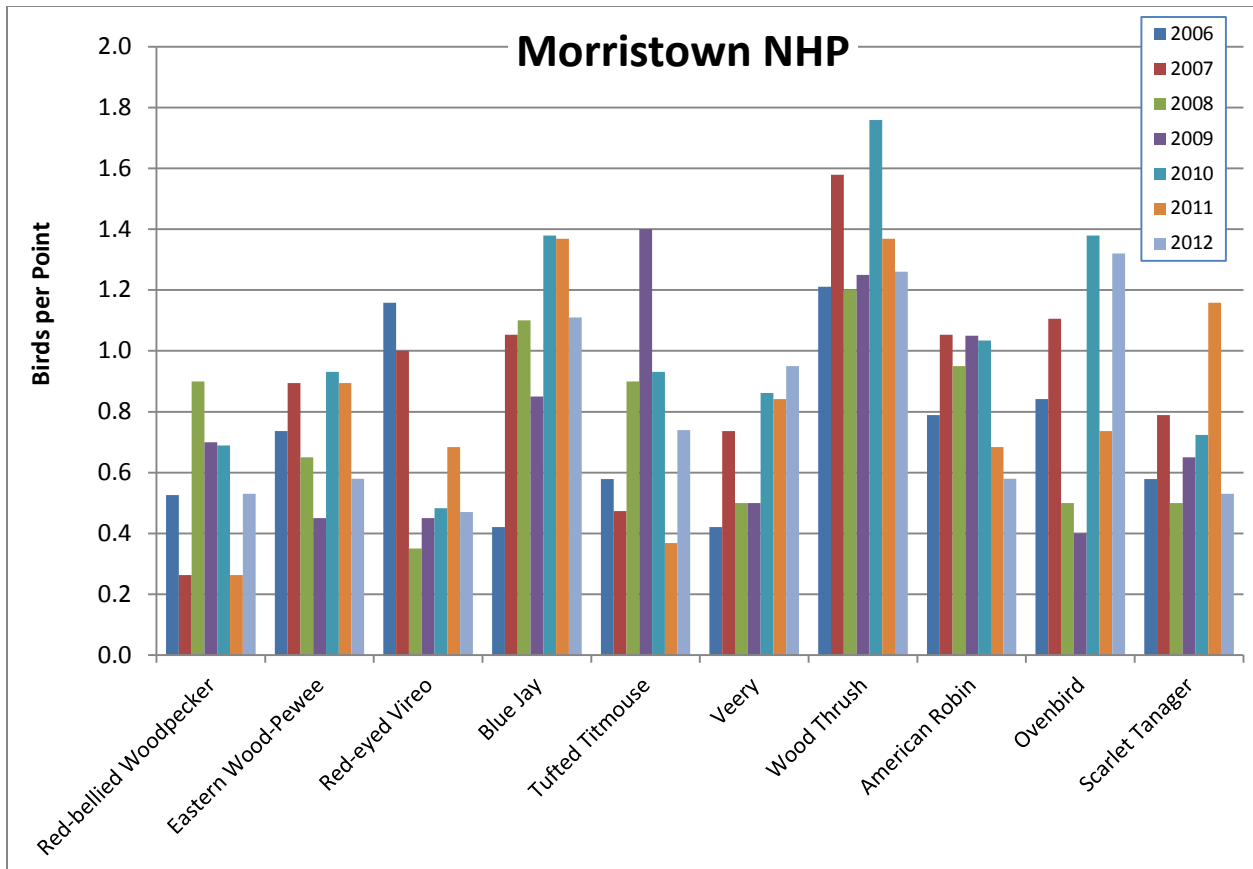


Figure 13. Relative abundance of the 10 most common species detected at Morristown National Historical Park, 2006-2012, for all sites combined.

Table 10. Park-wide Forest Avian Ecological Integrity Assessment for Morristown National Historical Park, 2006-2012.

Morristown NHP

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	29%	Caution
Single Brooded	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	10%	Caution
Low Canopy Forager	23%	Good
Omnivore	37%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	29%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	35%	Caution
Shrub Nester	25%	Sig Concern

Saint-Gaudens National Historic Site (New Hampshire)

Eight point counts (Figure 14) were established at Saint-Gaudens National Historic Site (SAGA), and surveyed annually since 2007 (Table 1). The park has been surveyed twice in all years except 2007.

During 2012 surveys, observers detected a total of 200 birds representing 37 species, including 10 species that were detected only on the repeat survey. A total of 56 species have been recorded during the 6 survey years. This number includes a Yellow-rumped Warbler detected on the second survey in 2012, and Black-throated Blue Warbler, Cedar Waxwing, Downy Woodpecker, Red-bellied Woodpecker, Solitary Sandpiper, Swamp Sparrow, and Yellow-throated Vireo detected on the second survey in previous years.

Average abundance during the first site survey was 11.08 birds per point. In 2012, relative abundance during the first survey (Appendix A) decreased from the previous year, while species richness remained the same. Of the ten most commonly detected species across all years, the relative abundances of six equaled or increased from 2011 (Figure 15), while the relative abundances of half were above the 6-year average. Five species of regional or USA/Canada conservation concern have been detected at SAGA: Belted Kingfisher, Eastern Wood-Pewee, Veery, Wood Thrush, and Scarlet Tanager; all of these species were detected in 2012. A list of species, their relative abundances, and other summary statistics from the first survey of each point are provided in Appendix A.

The park-wide forest avian ecological integrity assessment for all years combined at SAGA resulted in six categories ranked as “Good,” six ranked as “Caution,” and one “Significant Concern” (Table 11). The 2012 data did not alter the 2011 results. Overall, composition metrics were generally “Good,” while function and structural guilds were largely “Caution.” The predominance of “Caution” ratings for structure and function might warrant further exploration. This pattern tends to occur at parks without much understory structure and diversity, and is often associated with ungulate (in this case most likely white-tailed deer) over-browsing.

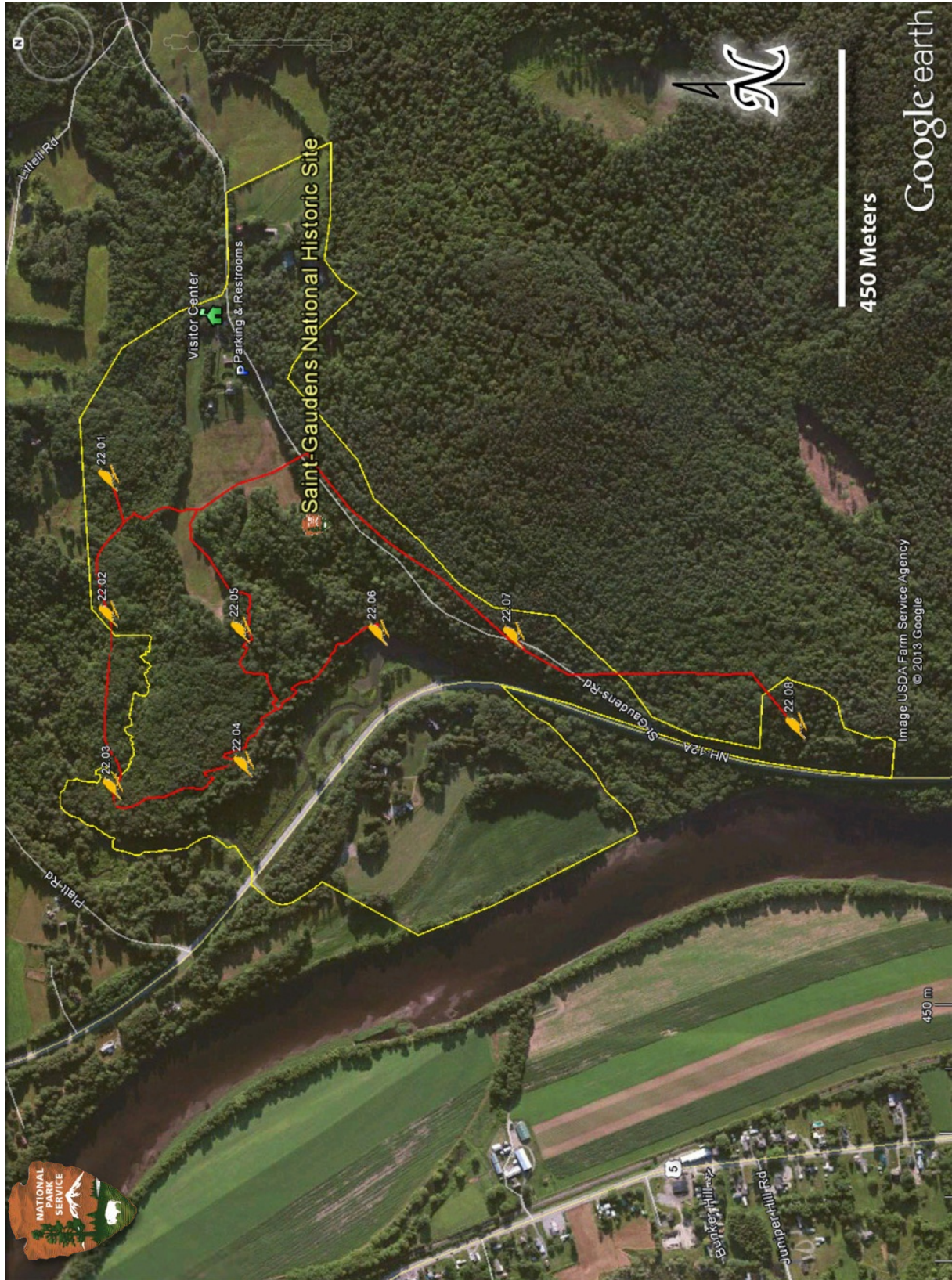


Figure 14. Point count stations at Saint-Gaudens National Historic Site. Red line indicates monitoring route. Google Earth image.

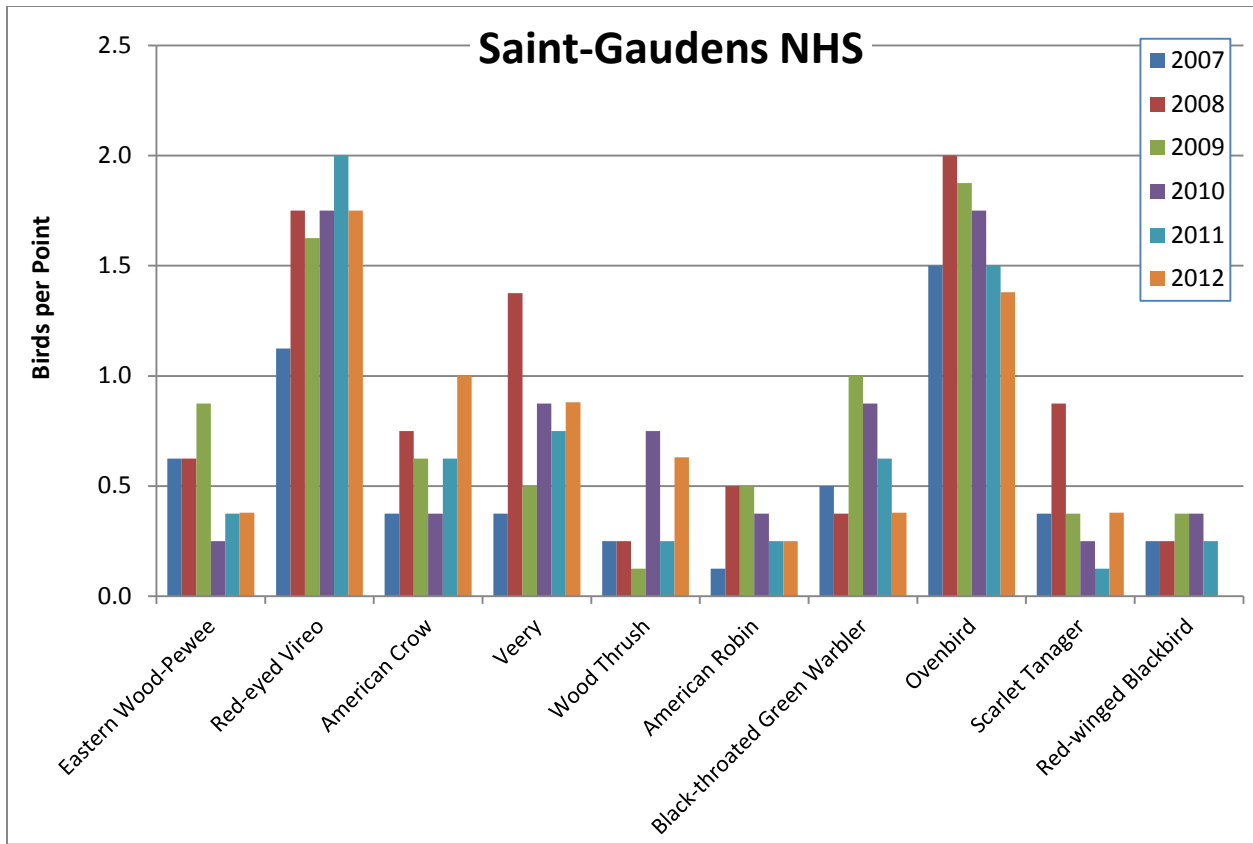


Figure 15. Relative abundance of the 10 most common species detected at Saint-Gaudens National Historic Site, 2007-2012.

Table 11. Park-wide Forest Avian Ecological Integrity Assessment for Saint-Gaudens National Historic Site, 2007-2012.

Saint-Gaudens NHS

2007 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	4%	Good
Resident	26%	Good
Single Brooded	62%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	21%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	15%	Caution
Interior Forest Obligate	38%	Good
Shrub Nester	25%	Sig Concern

Saugus Iron Works National Historic Site (Massachusetts)

Three point counts were established in 2008 at Saugus Iron Works National Historic Site (SAIR) in Saugus, MA (Figure 16). A single survey of these three point counts was conducted during June 2008, while three surveys were conducted in 2009, and two in 2010, 2011, and 2012 (Table 1). Due to the limited number of point counts at SAIR, multiple visits are encouraged to increase sample size. Note that the removal of several dozen Norway maple trees from near the point count stations in spring 2011 may have been a sufficient disturbance to affect the 2011 counts.

During 2012 surveys, a total of 96 individual birds representing 30 species were detected during the two surveys (six point counts), which may include some double-counted individuals. Four species (American Crow, Black-Crowned Night Heron, Downy Woodpecker, and Northern Mockingbird) were detected only during the second survey in 2012. A total of 44 species have been detected at the park during the four years of surveys, including six that were observed only during the repeat site surveys in 2009 (Great Egret, Killdeer, and Carolina Wren), 2011 (Double-Crested Cormorant and White-Breasted Nuthatch), and 2012 (Northern Mockingbird).

Average abundance during the first site visit was 15.87 birds per point. In 2012, relative abundance for the first survey increased to 17.33 birds per point from the previous year, and species richness increased by 10 species. Of the 11 most commonly detected species across all years, the relative abundances of six equaled or increased from 2011 (Figure 17), while the relative abundances of seven species in 2012 were below the 5-year mean. Three species of regional or USA/Canada conservation concern (Chimney Swift, Eastern Kingbird, and Baltimore Oriole) and three non-native species (Rock Pigeon, European Starling, and House Sparrow) have been detected. Appendix A contains a list of the species detected, relative abundance, and other summary statistics from the first survey of each point. Mallard, Song Sparrow, and Red-winged Blackbird continue to be the most commonly detected species.

The park-wide forest avian ecological integrity assessment for all years combined at SAIR resulted in one category ranked as “Good”, three categories ranked as “Caution” and nine ranked as “Significant Concern” (Table 12). These results represent no change from the 2011 results. Overall, the scarcity of “Good” rankings is not surprising considering the heavily urbanized location of this small park, and the fact that the tool was developed to assess the breeding bird community of interior forests.

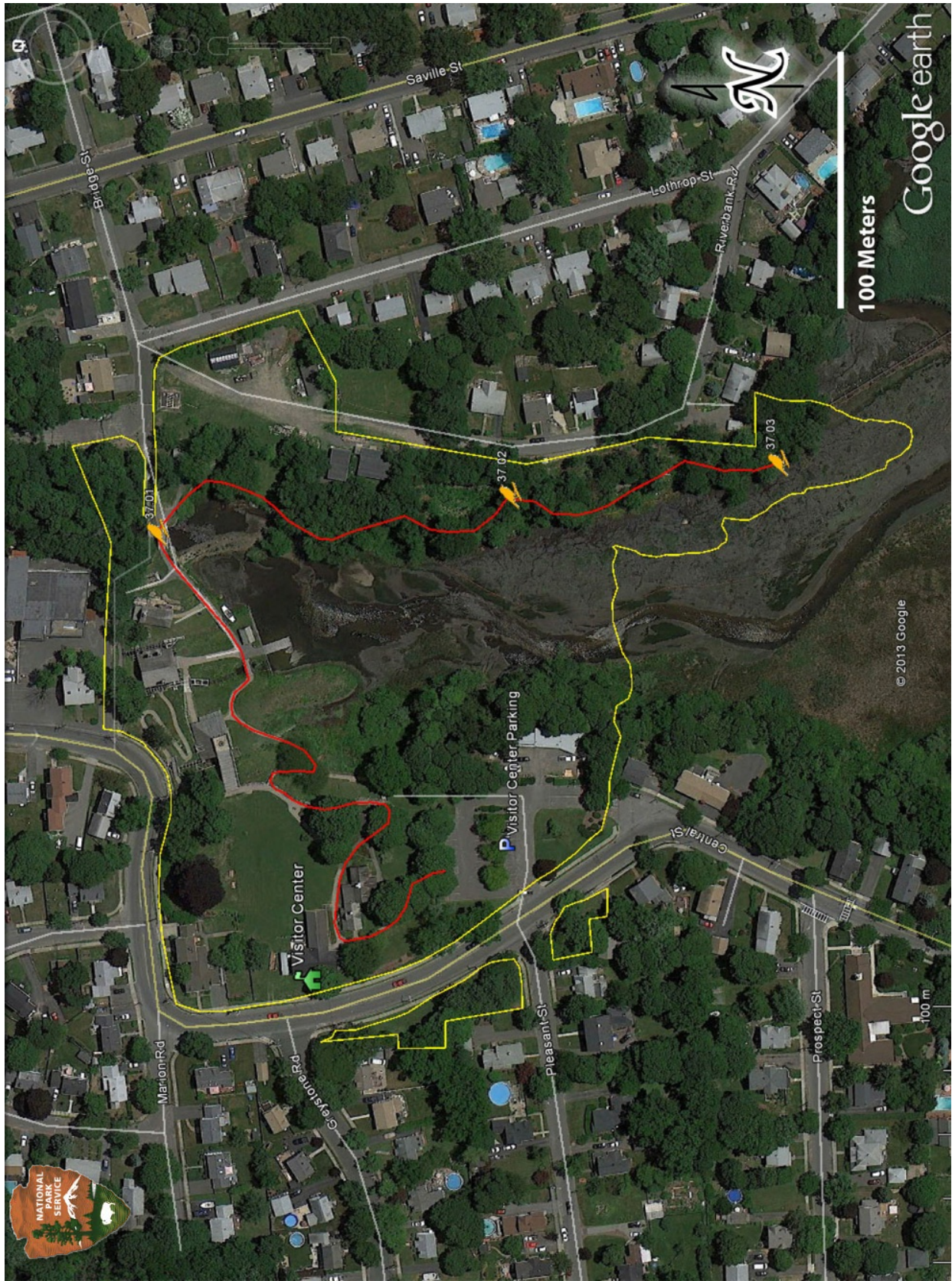


Figure 16. Point count stations at Saugus Iron Works National Historic Site. Red line indicates monitoring route. Google Earth image.

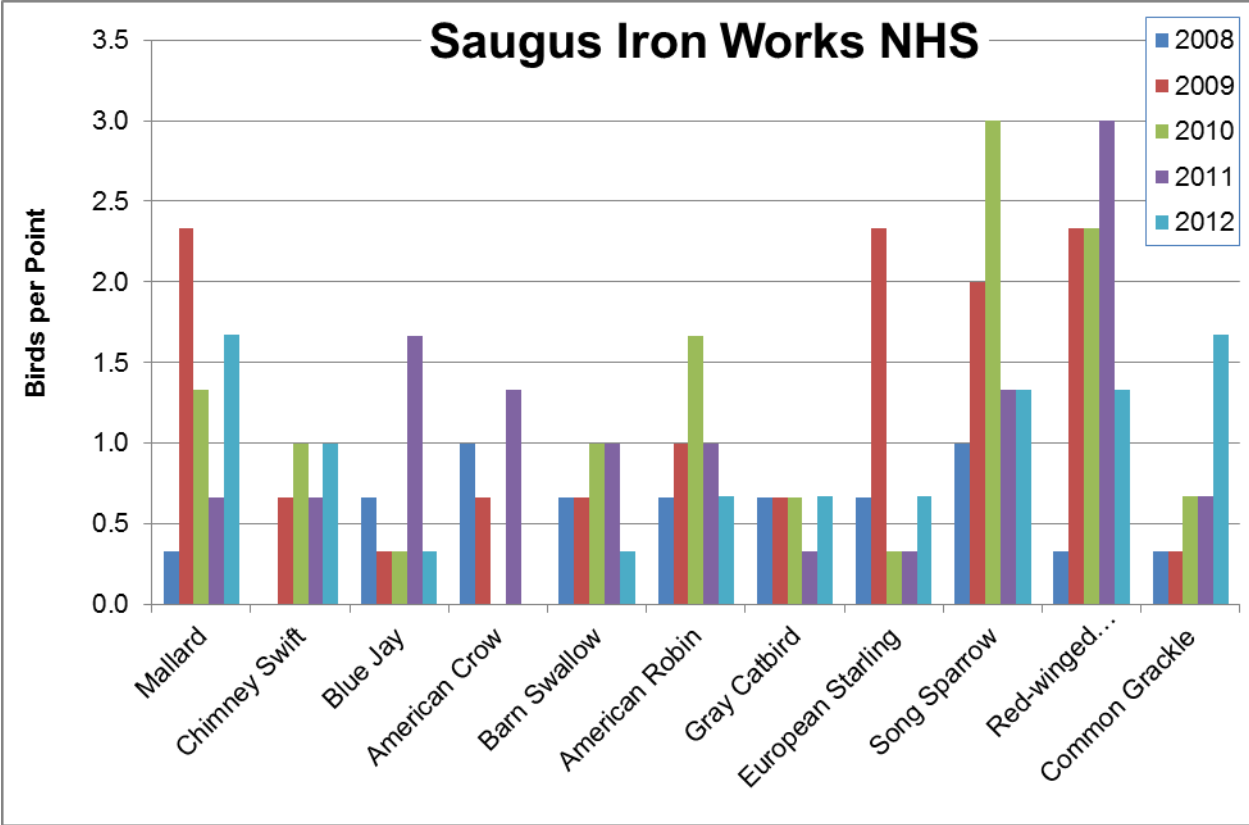


Figure 17. Relative abundance of the 11 most common species detected at Saugus Iron Works National Historic Site, 2008-2012.

Table 12. Park-wide Forest Avian Ecological Integrity Assessment for Saugus Iron Works National Historic Site, 2008-2012.

Saugus Iron Works NHS

2008 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	10%	Sig Concern
Nest Predator / Brood Parasite	13%	Caution
Resident	45%	Sig Concern
Single Brooded	39%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	6%	Caution
Ground Gleaner	3%	Sig Concern
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	23%	Good
Omnivore	45%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	19%	Sig Concern
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	3%	Sig Concern
Shrub Nester	29%	Sig Concern

Saratoga National Historical Park (New York)

A total of six study sites (three grassland sites and three forest sites) consisting of 51 point count stations were established in 2006 and 2007 at Saratoga National Historical Park (SARA), and a new forest site (Northwest; eight point count stations) was established in 2011 to replace the Bemis Heights site, which was discontinued in 2011 after being deemed hazardous by park staff. Wilkinson Trail Forest (10 points), Burgoyne's Headquarters Grassland (five points), Freeman Farm Grassland (10 points), and Neilson Farm Grassland (10 points) were established in 2006, while Middle Ravine Forest (10 points) and Bemis Heights Forest (six points) were established in 2007 (Figure 18). Point count surveys were initiated in 2006 when Wilkinson Trail Forest and all three grassland sites were sampled. However, because the observer at Wilkinson Trail was unskilled at bird identification, the data from that site in 2006 were not used (previous reports had included these data). Since 2007, the first year that all six study sites were available to be surveyed, 100 percent coverage was only achieved in 2008 (Table 1). Overall, 75% of the sites have been surveyed each year at Saratoga. In 2012, five out of six sites were surveyed, although data for the Wilkinson Trail site were received too late to be included in this report.

During 2012, surveys were conducted at 33 point count stations, where observers detected a total of 849 individual birds representing 57 species, including four species that were detected for the first time during monitoring at the park (Wild Turkey, Green Heron, Blue-headed Vireo, and Northern Rough-winged Swallow). During the seven survey years a total of 4,664 individual birds representing 89 species have been detected at SARA, with a mean abundance of 21.33 birds per point (Appendix A). During 2012, relative abundance dropped slightly from 2011, while species richness increased to 57 species. Of the 10 most commonly detected species across all years, the relative abundances of half increased from 2011 (Figure 19), while the relative abundance of only two species during 2012 (American Robin and American Goldfinch) were below the 7-year mean. During 2012, six species of regional or USA/Canada conservation concern were recorded (Eastern Wood-Pewee, Veery, Wood Thrush, Blue-winged Warbler, Eastern Towhee, and Field Sparrow). A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B.

The park-wide forest avian ecological integrity assessment for all years combined at SARA remained unchanged from 2011, with five categories ranked as "Good," five ranked as "Caution," and three ranked as "Significant Concern" (Table 13). With the exception of "Single Brooded" (which again earned a "Caution" rating), compositional metrics were rated "Good," while structural and functional metrics were dominated by "Caution" or "Significant Concern." These results continue to suggest that the forest bird community at SARA may be affected by the generally fragmented landscape consisting of small forest blocks broken up by fields and early successional habitats, plus effects of deer on understory vegetation structure. The forest avian ecological integrity assessment has also been calculated for each forest site, and these results are in Appendix C.

The grassland avian ecological integrity assessment resulted in three categories ranked as “Good” and three as “Caution” (Table 14). These results are not directly comparable to previous years because the threshold values of the “Edge Generalist” grassland guild were revised in 2012 due to the number of species that were added to that guild in 2011 (see Methods). In addition, this is the first year we have reported “Partner’s-in-Flight (PIF) Priority Grassland Obligate Species” and “PIF Priority Shrub-dependent Species” as “guilds” in the grassland assessment. These new metrics evaluate the proportion of grassland and shrub-dependent species detected that are listed as conservation priorities for BCR 13. Grassland communities are considered a high priority in the region, and it would be prudent for the park to continue its efforts to manage grassland habitat to support grassland species. However, because 54% of shrub-dependent birds are of high conservation concern in the region, there is also value in providing habitat for these rare and/or declining species.

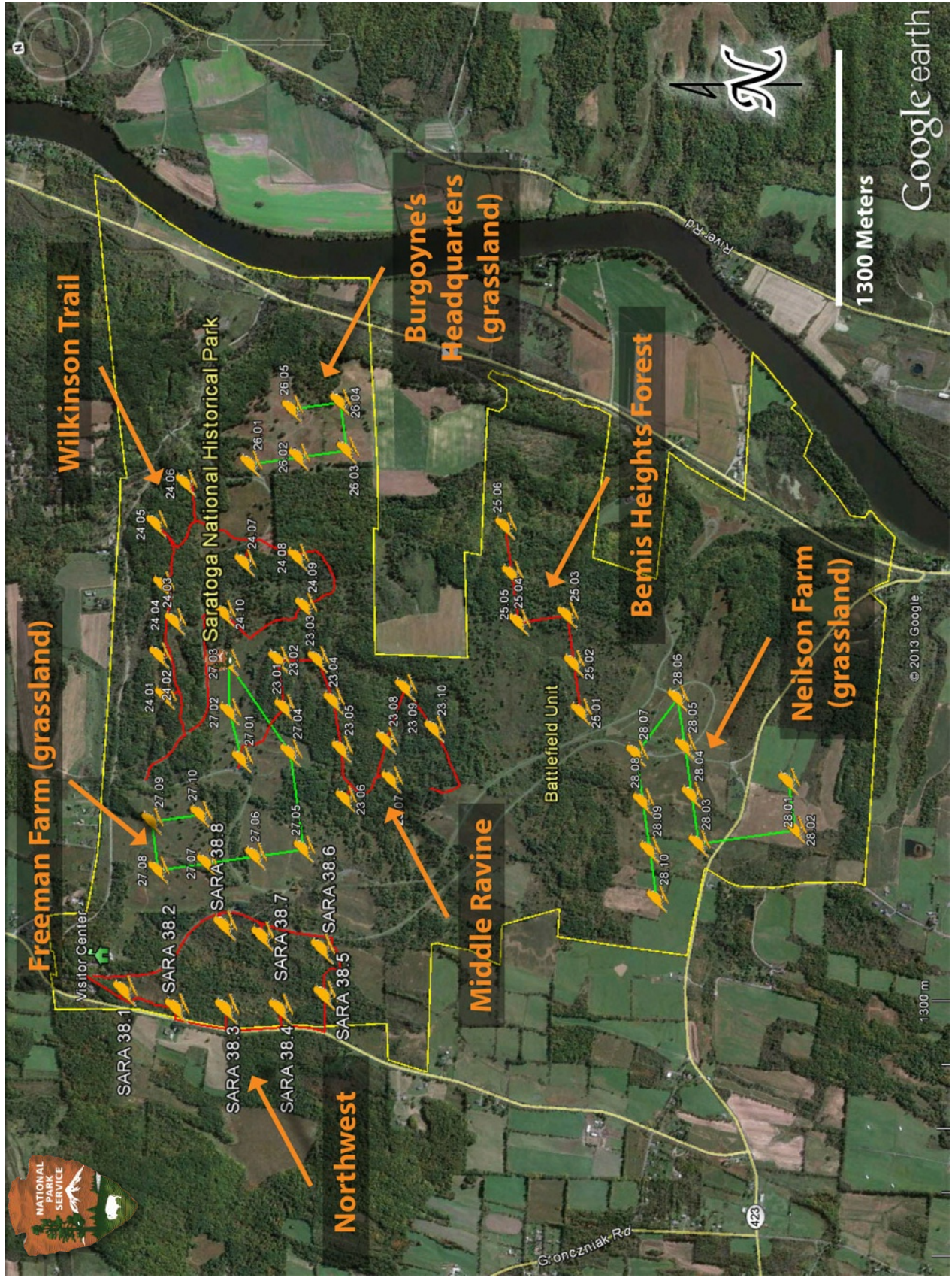


Figure 18. Point count stations at Saratoga National Historical Park. Red lines indicate forest monitoring routes, and green lines indicate grassland monitoring routes. Google Earth image.

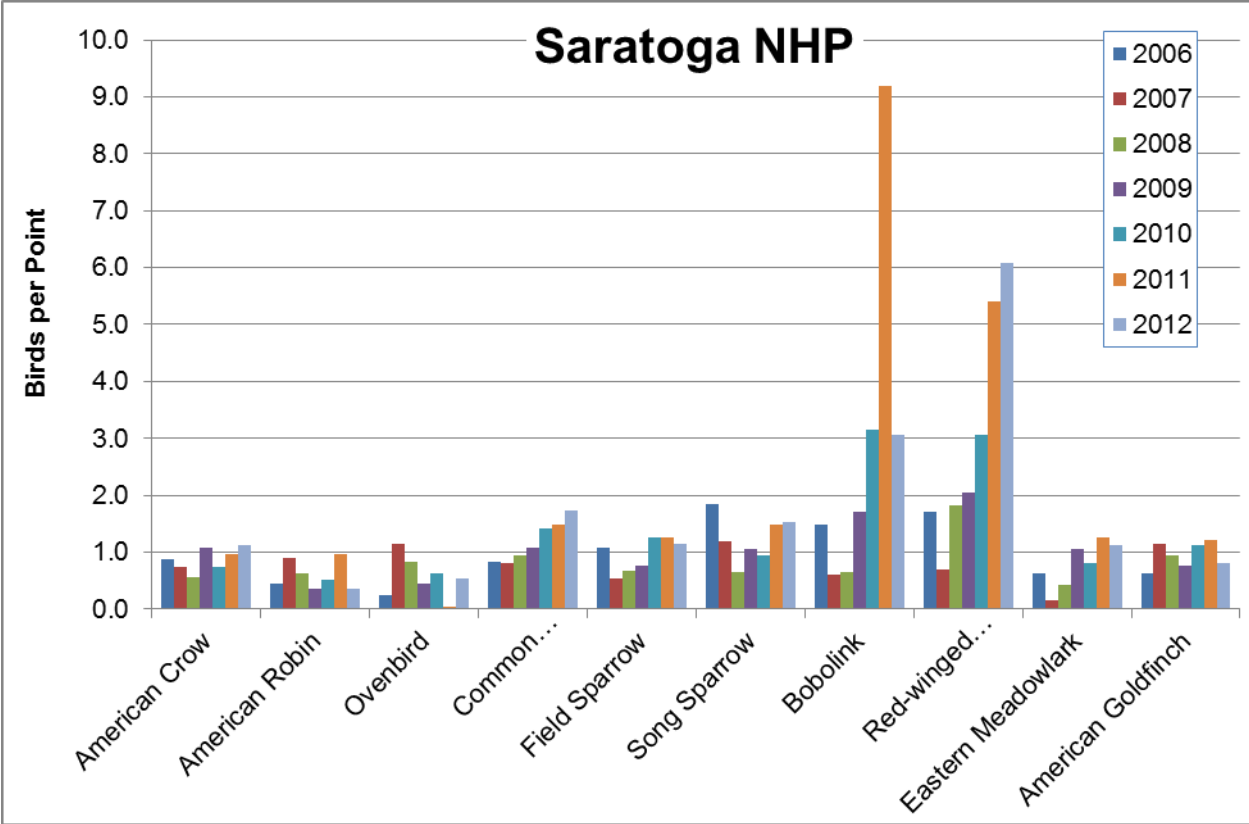


Figure 19. Relative abundance of the 10 most common species detected at Saratoga National Historical Park, 2006-2012, for all sites combined.

Table 13. Park-wide Forest Avian Ecological Integrity Assessment for forested study sites at Saratoga National Historical Park, 2006-2012.

Saratoga NHP

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	25%	Good
Single Brooded	53%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	23%	Good
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	27%	Sig Concern
Forest-ground Nester	12%	Caution
Interior Forest Obligate	27%	Caution
Shrub Nester	27%	Sig Concern

Table 14. Park-wide Grassland Avian Ecological Integrity Assessment for grassland study sites at Saratoga National Historical Park, 2006-2012.

Saratoga NHP

2006 to 2012

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	75%	Good
PIF Shrub-dependent	100%	Good
Edge Generalist	68%	Caution
Exotic	2%	Caution
Grassland Obligate	11%	Good
Shrub-dependent	21%	Caution

Vanderbilt Mansion National Historic Site (New York)

One study site with seven point count stations was established at Vanderbilt Mansion National Historic Site (VAMA; one of the Roosevelt-Vanderbilt National Historic Sites) and surveyed annually since 2006 (Table 1, Figure 20).

Forty-nine individual birds of 15 species were detected in 2012, including three species that were detected for the first time during monitoring at the park (Great Horned Owl, Red-winged Blackbird, and Common Grackle). In total, 37 species have been recorded, with an average abundance of 8.04 birds per point (Appendix A). In 2012, relative abundance decreased to 7.0 birds per point from 2011 (8.14 birds per point), while species richness increased. Among the 10 most commonly detected species across all years, the relative abundances of five declined from 2011 (Figure 21), and the relative abundances of four species in 2012 were at or above the 7-year average. Although three species of regional or USA/Canada conservation concern (Black-billed Cuckoo, Eastern Wood-Pewee, and Wood Thrush) have been detected during the 7-survey years, only Wood Thrush was detected in 2012. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.

The park-wide forest avian ecological integrity assessment for all years combined at VAMA resulted in four categories ranked as “Good,” five ranked as “Caution,” and four ranked as “Significant Concern” (Table 15). This represents a slight decline from 2011, as “Low Canopy Foragers” dropped from “Good” to “Caution.” Once again, guilds within the structural category earned no “Good” rankings, while “Significant Concern” ratings for metrics measuring abundance of canopy and single brooded species are indicative of the park’s location within a fragmented landscape.

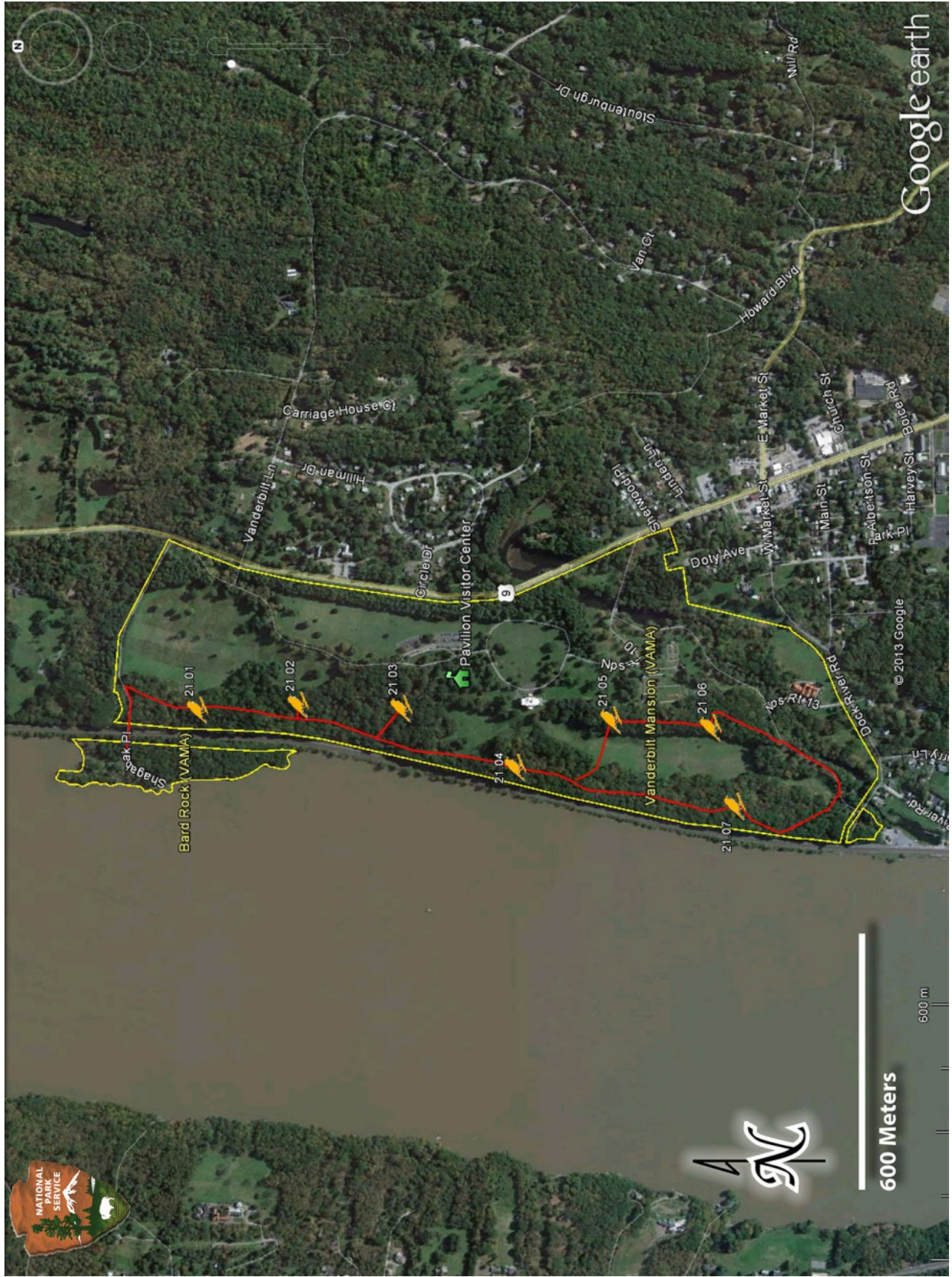


Figure 20. Point count stations at Vanderbilt Mansion National Historic Site. Red line indicates monitoring route. Google Earth image.

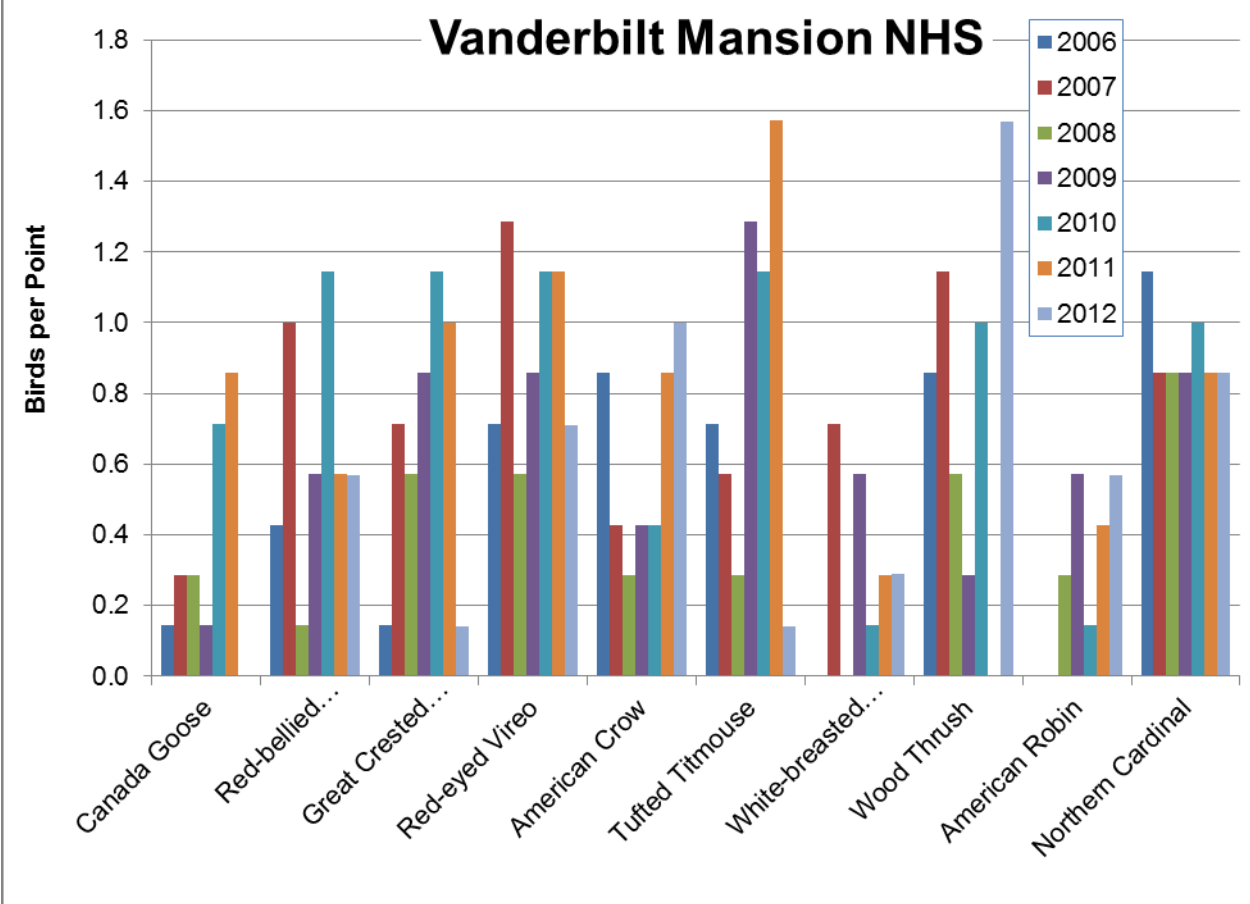


Figure 21. Relative abundance of the 10 most common species detected at Vanderbilt Mansion National Historic Site, 2006-2012.

Table 15. Park-wide Forest Avian Ecological Integrity Assessment for Vanderbilt Mansion National Historic Site, 2006-2012.

Vanderbilt Mansion NHS

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	36%	Caution
Single Brooded	39%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	9%	Good
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	21%	Caution
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Sig Concern
Forest-ground Nester	9%	Caution
Interior Forest Obligate	24%	Caution
Shrub Nester	27%	Sig Concern

Weir Farm National Historic Site (Connecticut)

Five point count stations were established at Weir Farm National Historic Site in 2006 (Figure 22). Two annual surveys have been conducted in 2006, 2009, 2010, and 2012 (Table 1). In 2012, a new volunteer assumed responsibilities to survey Weir Farm.

A total of 79 individual birds of 21 species were detected in 2012, including two species that were detected for the first time during monitoring at the park (Hairy Woodpecker and Yellow Warbler) and three species that were only detected on the second survey (Black-capped Chickadee, Common Grackle, and Mourning Dove). In total, 40 species have been recorded (including five that were only detected on repeat surveys: Black-throated Green Warbler, Common Yellowthroat, Eastern Bluebird, Louisiana Waterthrush, and Yellow-billed Cuckoo), with an average abundance of 7.70 birds per point (Appendix A). In 2012, relative abundance decreased to 7.60 birds per point from 2010 (10.6 birds per point), and species richness decreased by one. Among the 10 most commonly detected species across all years, the relative abundances of three increased from 2010 (Figure 23), and the relative abundances of half were above the 4-year average. Although five species of USA/Canada conservation concern (Eastern Wood-Pewee, Yellow-throated Vireo, Wood Thrush, Scarlet Tanager, and Baltimore Oriole) have been detected during the 4-survey years, only Eastern Wood-Pewee and Wood Thrush were detected in 2012. A list of species, their relative abundances, and other summary statistics are provided in Appendix A.

The park-wide forest avian ecological integrity assessment for all years combined at WEFA resulted in four categories ranked as “Good,” six ranked as “Caution,” and three ranked as “Significant Concern” (Table 16). This represents no change from the 2010 assessment. Once again, guilds within the structural category earned no “Good” rankings, while “Significant Concern” ratings reflected low abundance of canopy and single brooded species, and high abundance of shrub nesting species, indicative of the park’s location within a suburban, fragmented landscape.

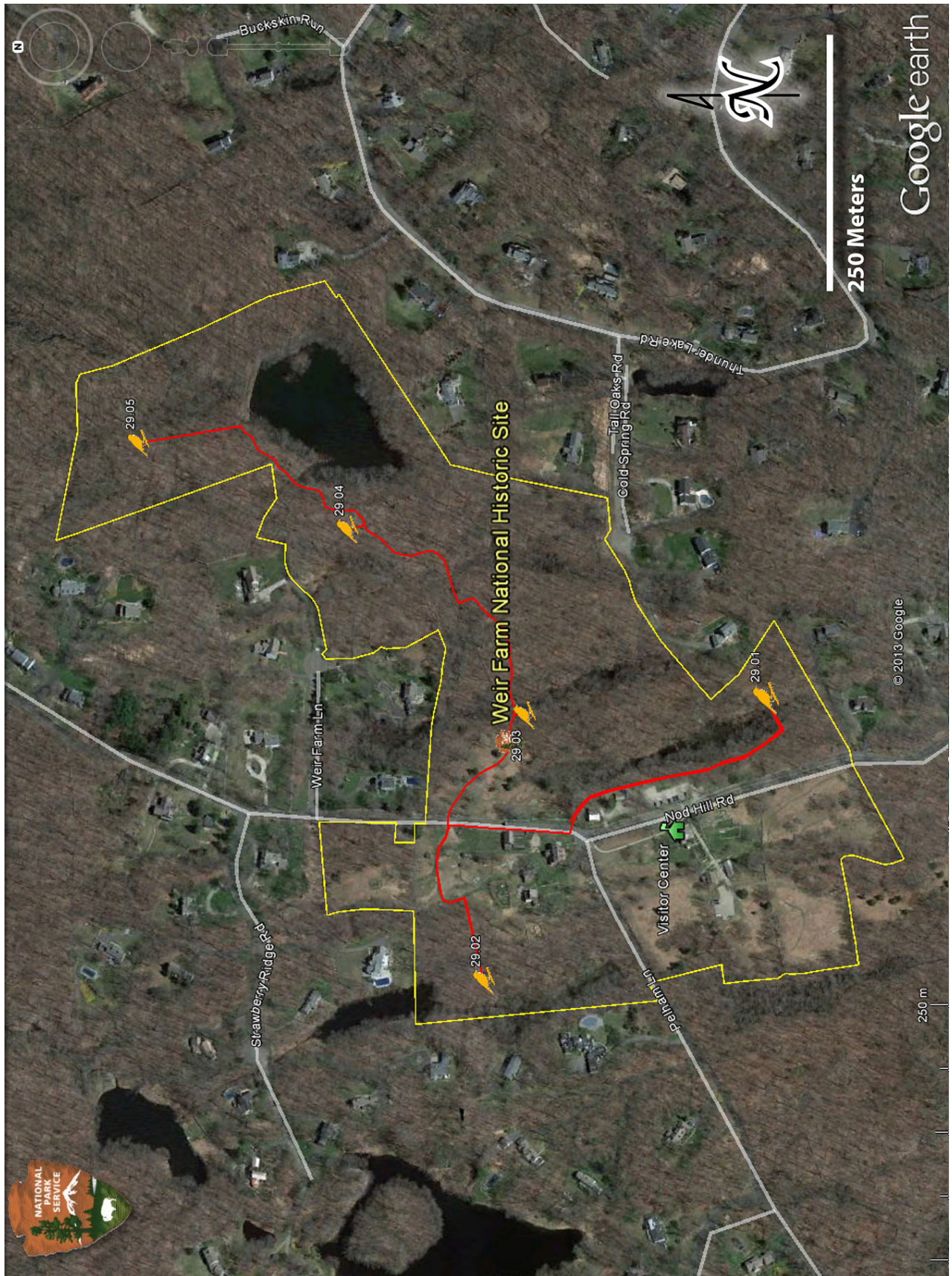


Figure 22. Point count stations at Weir Farm National Historic Site. Red line indicates monitoring route. Google Earth image.

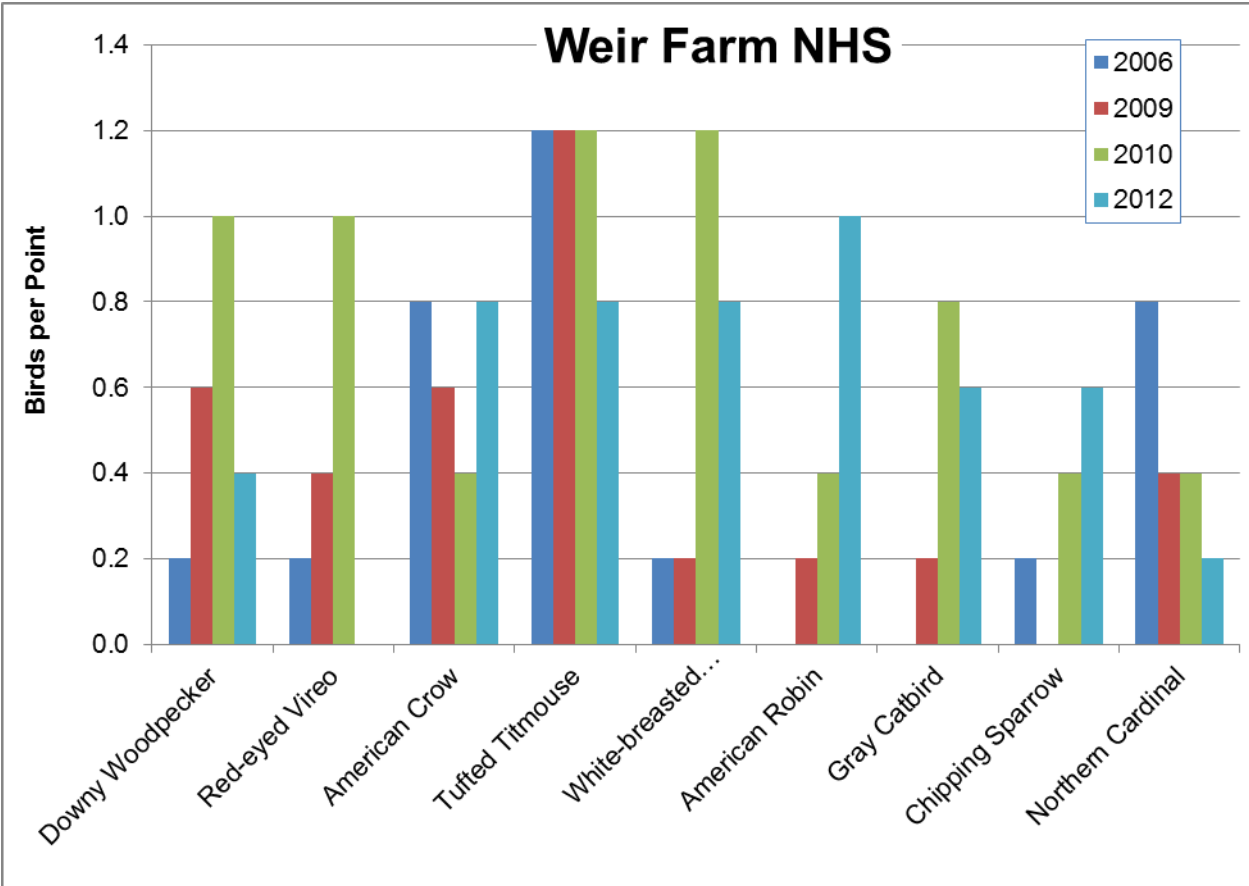


Figure 23. Relative abundance of the most common species detected at Weir Farm National Historic Site, 2006, 2009, 2010, and 2012.

Table 16. Forest Avian Ecological Integrity Assessment for Weir Farm National Historic Site, 2006-2012.

Weir Farm NHS

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	32%	Caution
Single Brooded	47%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	5%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	26%	Good
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	5%	Caution
Interior Forest Obligate	21%	Caution
Shrub Nester	32%	Sig Concern

Literature Cited

- Browder, S. F., D. H. Johnson, and I. J. Ball. 2002. Assemblages of breeding birds as indicators of grassland condition. *Ecological Indicators* 2: 257-270.
- Coppedge, B. R., D. M. Engle, R.E. Masters, and M.S. Gregory. 2006. Development of a grassland integrity index based on breeding bird assemblages. *Environmental Monitoring and Assessment* 118: 125-145.
- Faccio, S.D., and B.R. Mitchell. 2012. Northeast Temperate Network breeding landbird monitoring: 2011 summary report. Natural Resource Data Series NPS/NETN/NRDS—2012/352. National Park Service, Fort Collins, Colorado.
- Faccio, S. D., B. R. Mitchell, and P. S. Pooler. 2011. Breeding Landbird Monitoring Protocol: Northeast Temperate Network. Natural Resource Report NPS/NETN/NRR—2010/198. National Park Service, Fort Collins, Colorado. <https://irma.nps.gov/App/Reference/Profile/2190229>, link checked on 28 January 2013.
- Glennon, M. J. and W. F. Porter. 2005. Effects of land use management on biotic integrity: An investigation of bird communities. *Biological Conservation* 126: 499-511.
- North American Bird Conservation Initiative. 2000. North American Bird Conservation Initiative: Bird Conservation Region descriptions. U.S. Fish and Wildlife Service, Washington DC.
- O'Connell, T. J., L. E. Jackson and R. P. Brooks. 2000. Bird guilds as indicators of ecological condition in the central Appalachians. *Ecological Application* 10:1706-1721.

Appendix A—Park Summaries

This appendix contains a list of species detected during monitoring activities in each park, and the relative abundance (birds per point count station) of each species for each year. It only includes data for the first survey of each point count station in a given year, in order to promote consistent comparisons between years and to avoid artificially inflating abundances due to counting the same individuals in repeat visits. Species in boldface are Partners in Flight (PIF) priority species, and species in italics are the 10 most common species for each park. There will occasionally be more than 10 italicized species, if multiple species have the same abundance.

Beginning with this report, we have included the PIF Priority Species codes. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each park. This is due to the fact that we are now including “stewardship” species, in addition to those of regional or USA/Canada concern, as well as relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

This appendix also lists the number of point count stations surveyed per park each year, the number of birds detected per point count, the species richness, and the Shannon diversity index for each park for each year.

Appendix A. Park Summaries (continued).

Acadia NP

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Ruffed Grouse	CBSD		0.00	0.00	0.00	0.00	0.00	0.05	0.04	0.01	
Spruce Grouse			0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	
Common Loon			0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.01	
Broad-winged Hawk	RS UCS		0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	
Herring Gull			0.04	0.00	0.00	0.05	0.05	0.07	0.00	0.03	
<i>Mourning Dove</i>			0.68	0.61	0.33	0.11	0.26	0.26	0.21	0.37	
Barred Owl			0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	
Ruby-throated Hummingbird			0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	
Downy Woodpecker			0.00	0.00	0.05	0.16	0.02	0.00	0.00	0.04	
Hairy Woodpecker	UCS		0.21	0.00	0.10	0.37	0.05	0.18	0.03	0.15	
Northern Flicker (Yellow-shafted Flicker)			0.00	0.00	0.03	0.00	0.07	0.04	0.04	0.02	
Pileated Woodpecker			0.18	0.09	0.03	0.11	0.10	0.07	0.07	0.09	
Eastern Wood-Pewee	RC		0.00	0.00	0.15	0.00	0.02	0.00	0.00	0.03	
Yellow-bellied Flycatcher			0.00	0.00	0.00	0.26	0.07	0.04	0.04	0.06	
Alder Flycatcher			0.04	0.00	0.00	0.00	0.02	0.04	0.04	0.02	
Least Flycatcher			0.14	0.09	0.15	0.16	0.00	0.04	0.04	0.10	
Eastern Phoebe			0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.01	
Great Crested Flycatcher			0.04	0.00	0.21	0.00	0.05	0.00	0.00	0.05	
Blue-headed Vireo	UCS		0.36	0.61	0.41	0.26	0.29	0.29	0.29	0.37	
Warbling Vireo			0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	
Red-eyed Vireo	UCS		0.00	0.04	0.38	0.26	0.05	0.18	0.15	0.15	
Blue Jay			0.18	0.17	0.44	0.11	0.05	0.11	0.11	0.17	
<i>American Crow</i>			0.39	0.48	0.23	0.84	0.26	0.11	0.11	0.39	
Common Raven			0.32	0.09	0.23	0.26	0.14	0.07	0.07	0.19	
Black-capped Chickadee	UCS		0.18	0.35	0.69	0.21	0.21	0.11	0.11	0.29	
Boreal Chickadee	CBSD RC		0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.04	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Acadia NP

Common Name	PIF Codes	Relative Abundance (birds per point count station)								Mean
		2006	2007	2008	2009	2010	2011	2012		
Red-breasted Nuthatch		0.54	0.26	0.26	0.28	0.89	0.31	0.57	0.48	
Brown Creeper		0.07	0.35	0.35	0.15	0.37	0.07	0.21	0.20	
Winter Wren	UCS	0.25	0.22	0.22	0.03	0.68	0.36	0.04	0.26	
Golden-crowned Kinglet		0.36	0.83	0.83	0.28	0.53	0.36	0.21	0.43	
Ruby-crowned Kinglet		0.07	0.00	0.00	0.00	0.05	0.02	0.00	0.02	
Veery	RC RS UCS	0.00	0.00	0.00	0.03	0.05	0.02	0.00	0.02	
Swainson's Thrush		0.14	0.04	0.04	0.03	0.16	0.33	0.36	0.18	
<i>Hermit Thrush</i>		0.39	0.04	0.04	1.00	0.37	0.21	0.50	0.42	
Wood Thrush	RC UCC	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
American Robin		0.50	0.30	0.30	0.28	0.16	0.14	0.21	0.27	
Brown Thrasher	RC	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Cedar Waxwing	UCS	0.11	0.04	0.04	0.10	0.00	0.05	0.00	0.05	
Nashville Warbler		0.00	0.00	0.00	0.03	0.11	0.12	0.07	0.05	
Northern Parula	UCS	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Chestnut-sided Warbler		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Magnolia Warbler	UCS	0.14	0.17	0.17	0.00	0.37	0.19	0.11	0.16	
Black-throated Blue Warbler	RS UCS	0.07	0.30	0.30	0.31	0.00	0.07	0.07	0.14	
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.14	0.30	0.30	0.59	0.47	0.36	0.14	0.34	
Black-throated Green Warbler	RS UCS	1.75	1.87	1.87	1.49	2.05	1.19	1.43	1.63	
Blackburnian Warbler	RS UCS	0.25	0.39	0.39	0.18	0.11	0.10	0.18	0.20	
Pine Warbler		0.00	0.00	0.00	0.00	0.05	0.00	0.11	0.03	
Palm Warbler		0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	
Blackpoll Warbler		0.00	0.04	0.04	0.00	0.00	0.02	0.00	0.01	
Black-and-white Warbler	RS UCS	0.14	0.04	0.04	0.28	0.00	0.31	0.11	0.15	
American Redstart	RS UCS	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01	
Ovenbird	UCS	0.71	1.43	1.43	1.41	0.47	0.79	0.75	0.93	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Acadia NP

Common Name	PIF Codes	Relative Abundance (birds per point count station)								
		2006	2007	2008	2009	2010	2011	2012	Mean	
Common Yellowthroat	UCS		0.00	0.04	0.00	0.00	0.00	0.07	0.07	0.03
Scarlet Tanager	RC		0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.01
Eastern Towhee			0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Song Sparrow	UCS		0.00	0.00	0.00	0.00	0.00	0.07	0.07	0.01
Swamp Sparrow			0.00	0.00	0.05	0.00	0.00	0.00	0.07	0.02
White-throated Sparrow			0.00	0.00	0.00	0.21	0.05	0.04	0.04	0.05
Dark-eyed Junco (Slate-colored Junco)			0.25	0.17	0.33	0.79	0.17	0.32	0.32	0.34
Northern Cardinal			0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Rose-breasted Grosbeak			0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.01
Red-winged Blackbird			0.04	0.09	0.03	0.00	0.02	0.04	0.04	0.03
Common Grackle			0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Baltimore Oriole			0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Purple Finch	RS UCS		0.18	0.13	0.13	0.21	0.05	0.04	0.04	0.12
White-winged Crossbill			0.00	0.00	0.00	0.16	0.00	0.04	0.04	0.03
Pine Siskin	CBSD		0.29	0.65	0.05	0.05	0.02	0.04	0.04	0.18
American Goldfinch			0.00	0.00	0.05	0.00	0.05	0.11	0.11	0.03
		Points Surveyed:	28	23	39	19	42	28		
		Ave # Birds Per Point Count Station:	9.61	10.30	10.62	11.68	7.33	7.50		9.51
		Species Richness:	39	31	38	38	47	43		68
		Shannon Diversity:	3.18	2.89	3.07	3.16	3.26	3.17		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Canada Goose		0.00	0.00	0.00	0.09	0.18	0.09	0.00	0.05	
Wood Duck		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01	
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	
Cooper's Hawk		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.01	
Red-shouldered Hawk		0.00	0.00	0.00	0.18	0.09	0.00	0.27	0.08	
Red-tailed Hawk		0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.01	
Mourning Dove		0.00	0.27	0.00	0.27	0.45	0.36	0.55	0.27	
Yellow-billed Cuckoo	CBSD	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
Barred Owl		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.01	
Chimney Swift	CBSD	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	
Ruby-throated Hummingbird		0.00	0.00	0.09	0.00	0.00	0.09	0.09	0.04	
<i>Red-bellied Woodpecker</i>		0.83	0.55	0.36	0.18	0.91	0.73	0.73	0.61	
Downy Woodpecker		0.33	0.00	0.18	0.45	0.00	0.18	0.64	0.26	
Hairy Woodpecker		0.33	0.18	0.36	0.00	0.00	0.27	0.09	0.18	
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.18	0.00	0.00	0.09	0.09	0.05	
Pileated Woodpecker		0.17	0.09	0.27	0.00	0.18	0.27	0.36	0.19	
Eastern Wood-Pewee	RC	0.00	0.27	0.09	0.36	0.09	0.82	0.91	0.36	
Eastern Phoebe		0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01	
Great Crested Flycatcher		0.00	0.09	0.09	0.27	0.55	0.36	0.36	0.25	
Yellow-throated Vireo		0.17	0.00	0.00	0.00	0.00	0.18	0.00	0.05	
<i>Red-eyed Vireo</i>		1.17	0.91	0.64	1.00	0.73	0.64	0.64	0.82	
<i>Blue Jay</i>		0.33	0.27	0.27	0.27	0.36	0.64	0.55	0.39	
<i>American Crow</i>		0.83	0.45	0.36	0.82	0.55	0.45	0.36	0.55	
Black-capped Chickadee		0.00	0.00	0.09	0.09	0.00	0.36	0.27	0.12	
<i>Tufted Titmouse</i>		0.50	1.27	0.27	0.64	0.73	1.00	0.55	0.71	
<i>White-breasted Nuthatch</i>		0.17	0.45	0.82	0.18	0.36	0.55	0.45	0.43	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Brown Creeper		0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Carolina Wren		0.00	0.00	0.00	0.00	0.09	0.18	0.00	0.00	0.00	0.00	0.04
Eastern Bluebird		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Veery	RC	0.50	0.27	0.27	0.09	0.18	0.09	0.09	0.00	0.00	0.00	0.20
Wood Thrush	RC UCC	1.83	1.27	0.55	0.82	1.00	0.45	0.45	0.55	0.55	0.55	0.92
American Robin		0.67	0.73	0.73	0.45	0.45	0.27	0.27	0.55	0.55	0.55	0.55
Gray Catbird		0.17	0.36	0.36	0.18	0.18	0.27	1.09	0.37	0.37	0.37	0.37
Northern Mockingbird		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	0.01	0.01	0.01
Cedar Waxwing	UCS	0.00	0.00	0.00	0.00	0.00	0.18	0.09	0.04	0.04	0.04	0.04
Prairie Warbler	CBSD UCC	0.00	0.00	0.00	0.00	0.00	0.27	0.55	0.12	0.12	0.12	0.12
Black-and-white Warbler		0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.01	0.01	0.01	0.01
Worm-eating Warbler		0.33	0.09	0.00	0.18	0.00	0.09	0.18	0.13	0.13	0.13	0.13
Ovenbird		0.50	0.36	0.45	0.27	0.45	0.27	1.00	0.47	0.47	0.47	0.47
Louisiana Waterthrush		0.00	0.00	0.00	0.09	0.00	0.09	0.09	0.04	0.04	0.04	0.04
Common Yellowthroat		0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.03	0.03	0.03	0.03
Scarlet Tanager		1.00	0.09	0.36	0.27	0.09	0.45	0.27	0.36	0.36	0.36	0.36
Chipping Sparrow		0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.03	0.03	0.03	0.03
Song Sparrow	UCS	0.00	0.09	0.00	0.00	0.00	0.18	0.09	0.05	0.05	0.05	0.05
<i>Northern Cardinal</i>		0.50	1.09	0.45	1.00	0.64	0.27	0.55	0.64	0.64	0.64	0.64
Rose-breasted Grosbeak		0.00	0.36	0.00	0.00	0.00	0.36	0.09	0.12	0.12	0.12	0.12
Indigo Bunting		0.00	0.00	0.00	0.00	0.00	0.18	0.18	0.05	0.05	0.05	0.05
Red-winged Blackbird		0.00	0.18	0.00	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08
Common Grackle		0.00	0.09	0.00	0.00	0.00	0.09	0.00	0.03	0.03	0.03	0.03
Brown-headed Cowbird		0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01	0.01	0.01	0.01
Baltimore Oriole	RC RS UCS	0.00	0.09	0.09	0.00	0.00	0.09	0.00	0.04	0.04	0.04	0.04
American Goldfinch	UCS	0.00	0.09	0.09	0.00	0.00	0.36	0.36	0.13	0.13	0.13	0.13

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>													
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>						
<i>Points Surveyed:</i>		6	11	11	11	11	11	11	11	11	11	11			
<i>Ave # Birds Per Point Count Station:</i>		10.50	10.27	7.45	8.45	8.45	11.73	13.18	10.01						
<i>Species Richness:</i>		19	28	23	25	22	40	35	52						
<i>Shannon Diversity:</i>		2.70	2.93	2.94	2.91	2.83	3.43	3.29							

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>									
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>		
Canada Goose		0.00	0.08	0.00	0.17	0.00	0.00	0.00	0.04		
Mute Swan		0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.01		
Wild Turkey		0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.03		
Red-tailed Hawk		0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.01		
<i>Mourning Dove</i>		<i>0.08</i>	<i>0.33</i>	<i>0.50</i>	<i>0.50</i>	<i>0.42</i>	<i>0.58</i>	<i>0.40</i>	<i>0.40</i>		
Yellow-billed Cuckoo	CBSD	0.00	0.08	0.00	0.00	0.00	0.00	0.01	0.01		
Barred Owl		0.00	0.00	0.00	0.00	0.08	0.00	0.01			
<i>Red-bellied Woodpecker</i>		<i>0.25</i>	<i>0.58</i>	<i>0.50</i>	<i>0.50</i>	<i>0.42</i>	<i>0.58</i>	<i>0.47</i>	<i>0.47</i>		
Downy Woodpecker		0.17	0.17	0.17	0.00	0.17	0.17	0.14			
Hairy Woodpecker		0.08	0.00	0.00	0.08	0.08	0.00	0.04			
Northern Flicker (Yellow-shafted Flicker)		0.25	0.00	0.25	0.08	0.00	0.08	0.11			
Pileated Woodpecker		0.00	0.25	0.08	0.08	0.25	0.00	0.11			
Eastern Wood-Pewee	RC	0.17	0.17	0.17	0.33	0.17	0.00	0.17			
Least Flycatcher	RC	0.00	0.08	0.00	0.00	0.00	0.00	0.01			
Great Crested Flycatcher		0.25	0.33	0.00	0.58	0.25	0.17	0.26			
Yellow-throated Vireo		0.00	0.00	0.08	0.00	0.00	0.00	0.01			
Blue-headed Vireo		0.00	0.08	0.00	0.00	0.00	0.00	0.01			
<i>Red-eyed Vireo</i>		<i>0.75</i>	<i>0.67</i>	<i>0.58</i>	<i>0.75</i>	<i>0.42</i>	<i>0.67</i>	<i>0.64</i>			
<i>Blue Jay</i>		<i>0.33</i>	<i>0.42</i>	<i>0.42</i>	<i>0.50</i>	<i>0.33</i>	<i>0.25</i>	<i>0.38</i>			
American Crow		0.33	0.00	0.25	0.00	0.17	0.08	0.14			
Fish Crow		0.08	0.08	0.08	0.00	0.00	0.00	0.04			
Black-capped Chickadee		0.25	0.33	0.17	0.00	0.00	0.00	0.13			
<i>Tufted Titmouse</i>		<i>0.83</i>	<i>1.08</i>	<i>0.92</i>	<i>1.00</i>	<i>0.67</i>	<i>0.08</i>	<i>0.76</i>			
<i>White-breasted Nuthatch</i>		<i>0.42</i>	<i>0.33</i>	<i>0.50</i>	<i>0.08</i>	<i>0.08</i>	<i>0.58</i>	<i>0.33</i>			
Brown Creeper		0.08	0.00	0.08	0.00	0.00	0.00	0.03			
Carolina Wren		0.00	0.00	0.17	0.17	0.00	0.00	0.06			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>											
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>				
Ruby-crowned Kinglet		0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01				
Blue-gray Gnatcatcher		0.00	0.08	0.00	0.00	0.00	0.08	0.00	0.03				
Eastern Bluebird		0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.01				
Veery	RC	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.01				
Wood Thrush	RC UCC	1.33	0.58	0.58	0.58	0.58	0.58	0.75	0.74				
<i>American Robin</i>		0.33	0.67	0.42	0.25	0.33	0.33	0.08	0.35				
Northern Mockingbird		0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.01				
Worm-eating Warbler		0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.01				
Ovenbird		0.08	0.00	0.08	0.00	0.08	0.00	0.08	0.06				
Louisiana Waterthrush		0.25	0.25	0.08	0.17	0.00	0.00	0.00	0.13				
Common Yellowthroat		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.01				
<i>Scarlet Tanager</i>		0.83	0.50	0.42	0.08	0.25	0.25	0.25	0.39				
Chipping Sparrow		0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01				
<i>Northern Cardinal</i>		0.25	0.25	0.33	0.67	0.25	0.25	0.33	0.35				
Rose-breasted Grosbeak		0.00	0.17	0.00	0.33	0.00	0.00	0.08	0.10				
Red-winged Blackbird		0.08	0.25	0.00	0.17	0.25	0.25	0.08	0.14				
Common Grackle		0.17	0.00	0.00	0.33	0.00	0.00	0.08	0.10				
Brown-headed Cowbird		0.00	0.17	0.00	0.08	0.00	0.00	0.00	0.04				
Baltimore Oriole	RC RS UCS	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.03				
American Goldfinch	UCS	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.01				
Points Surveyed:		12	12	12	12	12	12	12	12				
Ave # Birds Per Point Count Station:		7.83	8.42	6.92	7.58	5.58	5.17	6.92					
Species Richness:		25	29	23	23	23	20	46					
Shannon Diversity:		2.85	3.08	2.88	2.85	2.92	2.64						

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Wild Turkey		0.00	0.00	0.05	0.00	0.00	0.04	0.00	0.01		
Broad-winged Hawk	RS UCS	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.01		
Mourning Dove		0.12	0.16	0.15	0.16	0.32	0.00	0.04	0.14		
Barred Owl		0.00	0.28	0.00	0.04	0.00	0.00	0.08	0.06		
Chimney Swift	CBSD	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.01		
Yellow-bellied Sapsucker	UCS	0.12	0.32	0.20	0.20	0.28	0.40	0.20	0.25		
Downy Woodpecker		0.16	0.12	0.00	0.08	0.00	0.00	0.08	0.06		
Hairy Woodpecker	UCS	0.16	0.20	0.20	0.00	0.04	0.04	0.08	0.10		
Northern Flicker (Yellow-shafted Flicker)		0.08	0.04	0.00	0.00	0.04	0.00	0.00	0.02		
Pileated Woodpecker		0.08	0.04	0.00	0.08	0.00	0.08	0.08	0.05		
Eastern Wood-Pewee	RC	0.60	0.72	0.55	0.52	0.48	0.64	0.40	0.56		
Least Flycatcher		0.04	0.12	0.05	0.00	0.04	0.00	0.00	0.04		
Great Crested Flycatcher		0.08	0.04	0.25	0.08	0.12	0.08	0.16	0.12		
Eastern Kingbird	RC	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.01		
Blue-headed Vireo	UCS	0.32	0.20	0.20	0.12	0.20	0.16	0.16	0.19		
Red-eyed Vireo	UCS	2.40	1.80	1.85	2.00	2.28	2.20	1.72	2.04		
<i>Blue Jay</i>		0.56	0.84	0.40	0.56	0.28	0.52	0.72	0.55		
American Crow		0.20	0.36	0.15	0.20	0.16	0.28	0.28	0.23		
Common Raven		0.08	0.00	0.05	0.00	0.04	0.04	0.12	0.05		
Black-capped Chickadee	UCS	0.32	0.84	0.50	0.56	0.28	0.40	0.16	0.44		
Tufted Titmouse		0.04	0.04	0.05	0.04	0.00	0.00	0.00	0.02		
Red-breasted Nuthatch		0.04	0.08	0.00	0.04	0.20	0.08	0.00	0.06		
White-breasted Nuthatch		0.32	0.32	0.10	0.36	0.12	0.16	0.16	0.22		
Brown Creeper		0.52	0.52	0.40	0.36	0.28	0.08	0.16	0.33		
Winter Wren	UCS	0.04	0.04	0.20	0.04	0.04	0.04	0.00	0.06		
Golden-crowned Kinglet		0.04	0.04	0.05	0.00	0.00	0.04	0.00	0.02		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Veery	RC RS UCS	0.12	0.12	0.10	0.00	0.00	0.00	0.08	0.00	0.06	0.06	
<i>Hermit Thrush</i>		0.52	0.72	1.05	0.96	0.68	0.68	0.68	0.72	0.76		
Wood Thrush	RC UCC	0.40	0.24	0.35	0.16	0.48	0.28	0.36	0.32	0.32		
<i>American Robin</i>		0.76	0.64	0.35	0.52	0.72	0.32	0.60	0.56			
Cedar Waxwing	UCS	0.00	0.04	0.05	0.00	0.04	0.08	0.04	0.04	0.04		
<i>Nashville Warbler</i>		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01			
<i>Chestnut-sided Warbler</i>		0.00	0.00	0.05	0.00	0.00	0.04	0.12	0.03			
Black-throated Blue Warbler	RS UCS	0.16	0.24	0.15	0.28	0.16	0.12	0.40	0.22			
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.08	0.08	0.05	0.08	0.08	0.04	0.00	0.06			
Black-throated Green Warbler	RS UCS	0.92	0.72	0.60	0.44	0.48	0.76	0.48	0.63			
Blackburnian Warbler	RS UCS	0.72	0.68	0.50	0.68	0.48	0.56	0.40	0.57			
<i>Pine Warbler</i>		0.00	0.04	0.10	0.16	0.20	0.16	0.12	0.11			
Black-and-white Warbler	RS UCS	0.12	0.08	0.00	0.00	0.00	0.12	0.00	0.05			
American Redstart	RS UCS	0.04	0.04	0.00	0.04	0.00	0.04	0.00	0.02			
Ovenbird	UCS	3.36	3.40	3.45	3.52	2.84	3.32	3.28	3.31			
<i>Louisiana Waterthrush</i>		0.00	0.08	0.00	0.00	0.00	0.08	0.00	0.02			
<i>Mourning Warbler</i>		0.00	0.00	0.00	0.04	0.08	0.00	0.00	0.02			
Common Yellowthroat	UCS	0.08	0.12	0.20	0.08	0.08	0.12	0.04	0.10			
Scarlet Tanager	RC	0.24	0.56	0.25	0.56	0.40	0.48	0.44	0.42			
<i>Chipping Sparrow</i>		0.12	0.04	0.00	0.04	0.00	0.04	0.00	0.03			
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.01			
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.24	0.44	0.05	0.16	0.40	0.48	0.32	0.30			
<i>Rose-breasted Grosbeak</i>		0.32	0.12	0.05	0.20	0.16	0.16	0.12	0.16			
<i>Indigo Bunting</i>		0.00	0.20	0.10	0.00	0.04	0.04	0.00	0.05			
Bobolink	CBSD RC UCC	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.01			
<i>Red-winged Blackbird</i>		0.04	0.28	0.15	0.00	0.00	0.00	0.00	0.07			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>									
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>		
Common Grackle		0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Brown-headed Cowbird		0.04	0.08	0.05	0.04	0.04	0.00	0.00	0.00	0.00	0.04
Baltimore Oriole		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Purple Finch	RS UCS	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Goldfinch		0.00	0.04	0.05	0.00	0.00	0.00	0.00	0.00	0.08	0.02
<i>Points Surveyed:</i>		25	25	20	25	25	25	25	25	25	25
<i>Ave # Birds Per Point Count Station:</i>		14.72	16.28	13.10	13.44	12.60	13.40	12.12	13.67		
<i>Species Richness:</i>		42	48	38	35	35	41	31	57		
<i>Shannon Diversity:</i>		2.91	3.12	2.84	2.76	2.83	2.84	2.75			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Canada Goose		0.00	0.04	0.00	0.00	0.00	0.09	0.00	0.02		
Wild Turkey		0.09	0.00	0.00	0.00	0.04	0.04	0.04	0.02		
Great Blue Heron		0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.01		
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.04	0.02		
Killdeer		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01		
Mourning Dove		0.09	0.00	0.09	0.00	0.27	0.13	0.04	0.09		
Black-billed Cuckoo	CBSD UCC	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01		
Yellow-billed Cuckoo	CBSD RC	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01		
Chimney Swift	CBSD RC	0.00	0.09	0.00	0.00	0.00	0.00	0.04	0.02		
Belted Kingfisher	CBSD	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.01		
Red-bellied Woodpecker		0.00	0.09	0.13	0.17	0.00	0.22	0.43	0.15		
Downy Woodpecker		0.26	0.52	0.30	0.52	0.53	0.39	0.50	0.43		
Hairy Woodpecker		0.04	0.17	0.00	0.04	0.07	0.09	0.00	0.06		
Northern Flicker (Yellow-shafted Flicker)		0.09	0.00	0.13	0.09	0.13	0.09	0.11	0.09		
Eastern Wood-Pewee	RC	0.35	0.26	0.13	0.30	0.67	0.22	0.21	0.31		
Alder Flycatcher		0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.01		
Eastern Phoebe		0.04	0.00	0.04	0.04	0.13	0.00	0.07	0.05		
Great Crested Flycatcher		0.09	0.00	0.22	0.13	0.07	0.22	0.11	0.12		
Eastern Kingbird	RC	0.04	0.00	0.00	0.00	0.00	0.04	0.00	0.01		
Warbling Vireo		0.04	0.00	0.04	0.13	0.00	0.00	0.00	0.03		
Red-eyed Vireo		0.00	0.09	0.35	0.09	0.20	0.13	0.39	0.18		
<i>Blue Jay</i>		1.09	1.13	1.22	0.74	1.33	0.91	0.75	1.02		
<i>American Crow</i>		0.52	0.74	0.83	0.87	1.20	1.39	0.93	0.93		
Fish Crow		0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.01		
Tree Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01		
Barn Swallow		0.00	0.00	0.00	0.04	0.00	0.04	0.00	0.01		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Black-capped Chickadee		1.00	0.65	0.48	0.48	0.48	0.60	0.52	0.57	0.61		
Tufted Titmouse		1.04	1.48	1.43	1.87	1.27	1.22	1.29	1.37			
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01		
White-breasted Nuthatch		0.39	0.39	0.13	0.65	1.20	0.22	0.86	0.55			
Carolina Wren		0.13	0.17	0.00	0.04	0.00	0.00	0.04	0.05			
House Wren		0.04	0.04	0.00	0.09	0.00	0.00	0.07	0.04			
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.01			
Eastern Bluebird		0.00	0.00	0.00	0.04	0.00	0.00	0.07	0.02			
Veery	RC	0.04	0.13	0.00	0.00	0.00	0.00	0.00	0.07	0.04		
Hermit Thrush		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01			
Wood Thrush	RC UCC	0.30	0.30	0.35	0.35	0.27	0.17	0.29	0.29	0.29		
American Robin		0.35	0.91	1.13	1.13	0.73	0.70	1.07	0.86			
Gray Catbird	UCS	0.30	0.48	0.48	0.83	0.40	0.48	0.64	0.52			
Northern Mockingbird		0.00	0.09	0.00	0.09	0.00	0.04	0.14	0.05			
European Starling		0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01			
Cedar Waxwing		0.04	0.04	0.00	0.26	0.00	0.00	0.07	0.06			
Blue-winged Warbler	RC RS UCS	0.13	0.00	0.00	0.09	0.00	0.00	0.00	0.03			
Yellow Warbler		0.04	0.00	0.13	0.09	0.07	0.04	0.07	0.06			
Pine Warbler		0.22	0.30	0.39	0.74	0.67	0.17	0.11	0.37			
American Redstart		0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.01			
Ovenbird		0.39	0.52	0.30	0.48	0.27	0.39	0.39	0.39			
Common Yellowthroat		0.43	0.43	0.35	0.65	0.40	0.22	0.32	0.40			
Scarlet Tanager	RC	0.26	0.09	0.22	0.65	0.20	0.13	0.25	0.26			
Chipping Sparrow		0.04	0.00	0.17	0.13	0.13	0.22	0.18	0.13			
<i>Song Sparrow</i>		0.61	0.61	0.48	0.48	0.47	0.52	0.32	0.50			
Swamp Sparrow		0.00	0.00	0.04	0.04	0.00	0.00	0.00	0.01			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Minute Man NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>									
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>		
Northern Cardinal		0.83	0.74	0.70	0.57	0.20	0.57	0.61	0.60		
Rose-breasted Grosbeak	RC	0.17	0.17	0.13	0.39	0.27	0.26	0.04	0.20		
Indigo Bunting		0.04	0.13	0.13	0.04	0.20	0.00	0.04	0.08		
<i>Red-winged Blackbird</i>		0.57	0.43	0.48	0.65	0.20	0.83	0.39	0.51		
Common Grackle		0.35	0.13	0.09	0.52	0.20	0.57	0.18	0.29		
Brown-headed Cowbird		0.17	0.48	0.13	0.30	0.00	0.30	0.07	0.21		
Baltimore Oriole	RC	0.13	0.13	0.00	0.26	0.13	0.13	0.04	0.12		
House Finch		0.13	0.09	0.04	0.09	0.13	0.04	0.04	0.08		
American Goldfinch		0.65	0.48	0.22	0.22	0.87	0.35	0.50	0.47		
House Sparrow		0.04	0.13	0.04	0.04	0.07	0.22	0.11	0.09		
<i>Points Surveyed:</i>		23	23	23	23	15	23	28			
<i>Ave # Birds Per Point Count Station:</i>		11.70	12.74	11.57	15.78	13.67	12.35	12.64	12.92		
<i>Species Richness:</i>		42	36	35	47	34	38	45	62		
<i>Shannon Diversity:</i>		3.27	3.20	3.12	3.37	3.15	3.23	3.30			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Wild Turkey		0.00	0.11	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.02	
Turkey Vulture		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Red-tailed Hawk		0.05	0.05	0.10	0.05	0.17	0.05	0.11	0.08	0.14		
Mourning Dove		0.05	0.05	0.15	0.05	0.28	0.05	0.32	0.14	0.09		
Yellow-billed Cuckoo	CBSD	0.00	0.21	0.05	0.25	0.10	0.00	0.00	0.09	0.09		
Eastern Screech-Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.10		
Great Horned Owl		0.00	0.00	0.10	0.15	0.10	0.16	0.21	0.10	0.02		
Barred Owl		0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.02	0.55		
<i>Red-bellied Woodpecker</i>		0.53	0.26	0.90	0.70	0.69	0.26	0.53	0.55	0.22		
Downy Woodpecker	RS UCS	0.11	0.11	0.30	0.35	0.28	0.21	0.21	0.22	0.20		
Hairy Woodpecker		0.00	0.00	0.25	0.20	0.34	0.21	0.37	0.20	0.32		
Northern Flicker (Yellow-shafted Flicker)		0.21	0.53	0.25	0.25	0.45	0.21	0.37	0.32	0.21		
Pileated Woodpecker	UCS	0.11	0.11	0.10	0.20	0.24	0.32	0.37	0.21	0.73		
<i>Eastern Wood-Pewee</i>	RC	0.74	0.89	0.65	0.45	0.93	0.89	0.58	0.00	0.03		
Acadian Flycatcher	RC RS UCS	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03		
Eastern Phoebe	UCS	0.00	0.05	0.05	0.00	0.07	0.00	0.05	0.03	0.10		
Great Crested Flycatcher		0.05	0.05	0.20	0.10	0.03	0.16	0.11	0.04	0.00		
Yellow-throated Vireo	RC RS UCS	0.05	0.11	0.05	0.00	0.00	0.05	0.05	0.04	0.00		
Blue-headed Vireo		0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.66		
Red-eyed Vireo	UCS	1.16	1.00	0.35	0.45	0.48	0.68	0.47	0.66	1.04		
<i>Blue Jay</i>		0.42	1.05	1.10	0.85	1.38	1.37	1.11	1.04	0.33		
American Crow		0.05	0.53	0.40	0.35	0.48	0.26	0.26	0.33	0.00		
Fish Crow		0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.03		
Black-capped Chickadee		0.05	0.05	0.05	0.00	0.03	0.05	0.00	0.03	0.77		
Tufted Titmouse	UCS	0.58	0.47	0.90	1.40	0.93	0.37	0.74	0.77	0.39		
White-breasted Nuthatch	UCS	0.16	0.26	0.60	0.40	0.48	0.32	0.53	0.39			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Carolina Wren		0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
House Wren		0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.10	0.14	0.05	0.16	0.06	0.06	0.06	0.06
Eastern Bluebird	UCS	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.02
Veery		0.42	0.74	0.50	0.50	0.86	0.84	0.95	0.69	0.69	0.95	0.69
Swainson's Thrush		0.05	0.00	0.00	0.05	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Wood Thrush	RC RS UCC UCS	1.21	1.58	1.20	1.25	1.76	1.37	1.26	1.38	1.38	1.26	1.38
American Robin		0.79	1.05	0.95	1.05	1.03	0.68	0.58	0.88	0.88	0.58	0.88
Gray Catbird	UCS	0.05	0.11	0.10	0.10	0.17	0.32	0.68	0.22	0.22	0.68	0.22
Cedar Waxwing	UCS	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Blackpoll Warbler		0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.04
Cerulean Warbler	RC RS UCC UCS	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Black-and-white Warbler	RC	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
American Redstart		0.21	0.32	0.00	0.10	0.21	0.26	0.42	0.22	0.22	0.42	0.22
Worm-eating Warbler	RC RS UCS	0.00	0.21	0.20	0.05	0.00	0.00	0.11	0.08	0.08	0.11	0.08
Overbird		0.84	1.11	0.50	0.40	1.38	0.74	1.32	0.90	0.90	1.32	0.90
Louisiana Waterthrush	RC RS UCS	0.16	0.11	0.00	0.00	0.00	0.21	0.00	0.07	0.07	0.00	0.07
Kentucky Warbler	RC UCC	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Common Yellowthroat	UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.00	0.01
Hooded Warbler	RS UCS	0.16	0.21	0.00	0.00	0.14	0.16	0.63	0.19	0.19	0.63	0.19
Canada Warbler	UCC	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Scarlet Tanager	RS UCS	0.58	0.79	0.50	0.65	0.72	1.16	0.53	0.70	0.70	0.53	0.70
Eastern Towhee	RC RS UCS	0.47	0.58	0.05	0.30	0.66	0.42	0.79	0.47	0.47	0.79	0.47
Chipping Sparrow		0.00	0.05	0.00	0.00	0.07	0.05	0.00	0.02	0.02	0.00	0.02
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.00	0.01
Northern Cardinal		0.16	0.47	0.10	0.40	0.14	0.21	0.05	0.22	0.22	0.05	0.22

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Morristown NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>									<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2012</i>	<i>2012</i>	
Rose-breasted Grosbeak		0.05	0.21	0.10	0.05	0.10	0.05	0.37	0.13		
Indigo Bunting	UCS	0.00	0.00	0.10	0.00	0.03	0.00	0.00	0.02	0.01	0.01
Common Grackle		0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.08		
Brown-headed Cowbird		0.11	0.16	0.00	0.05	0.07	0.16	0.00	0.17		
Baltimore Oriole		0.47	0.11	0.30	0.10	0.03	0.00	0.16	0.01		
American Goldfinch	RS UCS	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.01	0.01
<i>Points Surveyed:</i>		19	19	20	20	29	19	19			
<i>Ave # Birds Per Point Count Station:</i>		10.53	13.84	11.35	11.35	15.21	12.58	14.47	12.76		
<i>Species Richness:</i>		35	36	33	31	39	36	33	58		
<i>Shannon Diversity:</i>		3.06	3.13	3.08	3.03	3.12	3.12	3.19			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Wild Turkey		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Mourning Dove		0.00	0.00	0.00	0.13	0.00	0.50	0.00	0.00	0.00	0.10
Belted Kingfisher	CBSD RC	0.00	0.13	0.13	0.00	0.13	0.00	0.25	0.00	0.25	0.08
Yellow-bellied Sapsucker	UCS	0.13	0.00	0.00	0.00	0.25	0.50	0.25	0.50	0.25	0.19
Hairy Woodpecker	UCS	0.00	0.00	0.00	0.38	0.00	0.13	0.00	0.13	0.00	0.08
Northern Flicker (Yellow-shafted Flicker)		0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Pileated Woodpecker		0.38	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.13	0.13
Eastern Wood-Pewee	RC	0.63	0.63	0.63	0.88	0.25	0.38	0.38	0.38	0.38	0.52
Alder Flycatcher		0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.13	0.00	0.02
Willow Flycatcher		0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Least Flycatcher		0.13	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Eastern Phoebe		0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Great Crested Flycatcher		0.00	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.06
Blue-headed Vireo	UCS	0.13	0.13	0.13	0.13	0.25	0.00	0.25	0.00	0.25	0.15
Red-eyed Vireo	UCS	1.13	1.75	1.75	1.63	1.75	2.00	1.75	2.00	1.75	1.67
Blue Jay		0.38	0.50	0.50	0.00	0.25	0.00	0.00	0.00	0.00	0.19
<i>American Crow</i>		0.38	0.75	0.75	0.63	0.38	0.63	1.00	0.63	1.00	0.63
Black-capped Chickadee	UCS	0.25	0.13	0.13	0.38	0.38	0.25	0.00	0.25	0.00	0.23
Tufted Titmouse		0.00	0.00	0.00	0.00	0.00	0.50	0.25	0.50	0.25	0.13
Red-breasted Nuthatch		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.04
White-breasted Nuthatch		0.00	0.00	0.00	0.25	0.13	0.13	0.13	0.13	0.00	0.08
Brown Creeper		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.02
Winter Wren	UCS	0.00	0.00	0.00	0.25	0.13	0.13	0.13	0.13	0.13	0.10
Veery	RC RS UCS	0.38	1.38	1.38	0.50	0.88	0.75	0.88	0.75	0.88	0.79
<i>Hermit Thrush</i>		0.00	0.13	0.13	0.25	0.50	0.50	0.38	0.50	0.38	0.29
Wood Thrush	RC UCC	0.25	0.25	0.25	0.13	0.75	0.25	0.25	0.25	0.63	0.38

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)								Mean
		2006	2007	2008	2009	2010	2011	2012		
American Robin		0.13	0.50	0.50	0.50	0.38	0.25	0.25	0.33	
Gray Catbird		0.25	0.13	0.13	0.13	0.13	0.00	0.00	0.10	
Yellow Warbler		0.13	0.00	0.25	0.25	0.13	0.13	0.00	0.13	
Chestnut-sided Warbler		0.25	0.13	0.00	0.13	0.13	0.00	0.13	0.10	
Magnolia Warbler	UCS	0.00	0.13	0.00	0.00	0.00	0.00	0.13	0.04	
Black-throated Green Warbler	RS UCS	0.50	0.38	1.00	1.00	0.88	0.63	0.38	0.63	
Blackburnian Warbler	RS UCS	0.00	0.00	0.00	0.00	0.00	0.38	0.50	0.15	
Pine Warbler		0.00	0.25	0.00	0.00	0.38	0.00	0.50	0.19	
Black-and-white Warbler	RS UCS	0.13	0.13	0.00	0.00	0.00	0.00	0.13	0.06	
American Redstart	RS UCS	0.13	0.00	0.25	1.88	1.75	1.50	1.38	1.67	
Ovenbird	UCS	1.50	2.00	0.00	0.13	0.00	0.00	0.00	0.02	
Northern Waterthrush		0.00	0.00	0.13	0.00	0.13	0.00	0.13	0.10	
Louisiana Waterthrush		0.25	0.13	0.00	0.00	0.13	0.00	0.13	0.10	
Common Yellowthroat	UCS	0.25	0.25	0.13	0.13	0.25	0.38	0.13	0.23	
Scarlet Tanager	RC	0.38	0.88	0.38	0.38	0.25	0.13	0.38	0.40	
Song Sparrow	UCS	0.00	0.13	0.25	0.25	0.00	0.13	0.13	0.10	
White-throated Sparrow		0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.02	
Dark-eyed Junco (Slate-colored Junco)		0.00	0.00	0.00	0.00	0.38	0.38	0.13	0.15	
Rose-breasted Grosbeak		0.00	0.13	0.00	0.00	0.13	0.00	0.00	0.04	
Red-winged Blackbird		0.25	0.25	0.38	0.38	0.38	0.25	0.00	0.25	
Baltimore Oriole		0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.10	
American Goldfinch		0.00	0.25	0.25	0.25	0.00	0.00	0.00	0.08	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>			
<i>Ave # Birds Per Point Count Station:</i>			8	8	12.13	11.63	12.00	11.25	11.00	8	8	11.08
<i>Species Richness:</i>			25	30	27	31	27	27	27	27	27	48
<i>Shannon Diversity:</i>			2.91	2.90	2.93	3.03	2.92	2.92	2.93	2.93	2.93	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saugus Iron Works NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Canada Goose			0.00	0.00	0.67	0.00	0.00	1.00	0.33		
<i>Mallard</i>			0.33	2.33	1.33	0.67	1.67	1.27	1.27		
Great Blue Heron			0.00	0.00	0.00	0.33	0.00	0.07	0.07		
Snowy Egret			0.00	0.00	0.00	0.00	0.33	0.07	0.07		
Black-crowned Night-Heron			0.00	0.33	0.67	0.00	0.00	0.20	0.20		
Red-tailed Hawk			0.00	0.00	0.33	0.00	0.00	0.07	0.07		
Spotted Sandpiper			0.00	0.00	0.33	0.00	0.33	0.13	0.13		
Herring Gull			0.33	0.67	0.67	0.67	0.67	0.60	0.60		
Great Black-backed Gull			0.00	0.00	0.00	0.00	0.33	0.07	0.07		
Rock Pigeon			0.33	0.33	0.67	0.00	0.67	0.40	0.40		
Mourning Dove			0.33	0.00	0.00	0.00	0.00	0.07	0.07		
Chimney Swift	CBSD RC		0.00	0.67	1.00	0.67	1.00	0.67	0.67		
Belted Kingfisher	CBSD		0.33	0.00	0.00	0.00	0.33	0.13	0.13		
Downy Woodpecker			0.67	0.00	0.33	0.00	0.00	0.20	0.20		
Northern Flicker (Yellow-shafted Flicker)			0.33	0.00	0.33	0.00	0.33	0.20	0.20		
Eastern Phoebe			0.00	0.67	0.00	0.00	0.33	0.20	0.20		
Eastern Kingbird	RC		0.00	0.00	0.33	0.33	0.67	0.27	0.27		
Warbling Vireo			0.00	0.00	0.33	0.33	0.33	0.20	0.20		
Red-eyed Vireo			0.00	0.33	0.00	0.00	0.00	0.07	0.07		
<i>Blue Jay</i>			0.67	0.33	0.33	1.67	0.33	0.67	0.67		
<i>American Crow</i>			1.00	0.67	0.00	1.33	0.00	0.60	0.60		
<i>Barn Swallow</i>			0.67	0.67	1.00	1.00	0.33	0.73	0.73		
Black-capped Chickadee			0.00	0.00	0.00	0.33	0.00	0.07	0.07		
Tufted Titmouse			0.33	0.00	0.00	0.00	0.00	0.07	0.07		
House Wren			0.00	0.00	0.33	0.00	0.00	0.07	0.07		
<i>American Robin</i>			0.67	1.00	1.67	1.00	0.67	1.00	1.00		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saugus Iron Works NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Gray Catbird	UCS		0.67	0.67	0.67	0.67	0.67	0.33	0.67	0.67	0.67	0.60
European Starling			0.67	2.33	0.33	0.33	0.67	0.33	0.67	0.67	0.67	0.87
Yellow Warbler			0.00	0.00	0.33	0.33	0.00	0.00	0.33	0.33	0.33	0.13
Common Yellowthroat			0.33	0.33	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.13
Song Sparrow			1.00	2.00	3.00	3.00	1.33	1.33	1.33	1.33	1.33	1.73
Northern Cardinal			1.00	0.33	0.33	0.33	0.00	0.00	0.33	0.33	0.33	0.40
Red-winged Blackbird			0.33	2.33	2.33	2.33	3.00	1.33	1.33	1.33	1.33	1.87
Common Grackle			0.33	0.33	0.33	0.67	0.67	1.67	1.67	1.67	1.67	0.73
Brown-headed Cowbird			0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.33	0.33	0.07
Baltimore Oriole	RC		0.33	0.33	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.27
American Goldfinch			0.00	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.00	0.20
House Sparrow			1.00	0.00	0.33	0.33	0.33	0.00	1.00	1.00	1.00	0.47
			3	3	3	3	3	3	3	3	3	
Points Surveyed:												
Ave # Birds Per Point Count Station:			11.67	17.00	18.67	14.67	17.33	15.87				
Species Richness:			21	20	25	18	26	38				
Shannon Diversity:			2.94	2.69	2.92	2.62	3.08					

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Canada Goose		0.16	0.05	0.08	0.00	0.02	0.04	0.06	0.06	0.06	0.06	0.06
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Northern Bobwhite		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Great Blue Heron		0.12	0.05	0.00	0.02	0.02	0.00	0.03	0.04	0.00	0.03	0.04
Green Heron		0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0.00
Turkey Vulture		0.00	0.00	0.00	0.02	0.02	0.07	0.06	0.03	0.00	0.06	0.03
Northern Harrier		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Sharp-shinned Hawk		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.01
Cooper's Hawk		0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Red-tailed Hawk		0.04	0.00	0.00	0.00	0.05	0.00	0.06	0.02	0.00	0.06	0.02
American Kestrel		0.16	0.00	0.04	0.05	0.10	0.22	0.09	0.09	0.00	0.09	0.09
American Woodcock		0.00	0.00	0.00	0.02	0.10	0.22	0.00	0.05	0.00	0.00	0.05
Mourning Dove		0.24	0.60	0.43	0.27	0.49	0.48	0.33	0.41	0.00	0.33	0.41
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.16	0.00	0.04	0.02	0.00	0.00	0.00	0.03	0.00	0.00	0.03
Yellow-billed Cuckoo	CBSD	0.04	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Ruby-throated Hummingbird		0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Red-bellied Woodpecker		0.28	0.00	0.04	0.05	0.07	0.00	0.09	0.08	0.00	0.09	0.08
Yellow-bellied Sapsucker		0.08	0.05	0.14	0.29	0.56	0.07	0.18	0.20	0.00	0.18	0.20
Downy Woodpecker		0.00	0.10	0.20	0.05	0.12	0.22	0.18	0.12	0.00	0.18	0.12
Hairy Woodpecker		0.00	0.00	0.00	0.00	0.10	0.07	0.00	0.02	0.00	0.00	0.02
Northern Flicker (Yellow-shafted Flicker)		0.20	0.15	0.04	0.02	0.20	0.19	0.24	0.15	0.00	0.24	0.15
Pileated Woodpecker		0.08	0.00	0.04	0.15	0.15	0.00	0.09	0.07	0.00	0.09	0.07
Eastern Wood-Pewee	RC	0.16	0.35	0.59	0.41	0.51	0.11	0.39	0.36	0.00	0.39	0.36
Acadian Flycatcher		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alder Flycatcher		0.00	0.05	0.08	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02
Willow Flycatcher	UCS	0.08	0.00	0.16	0.00	0.02	0.04	0.09	0.06	0.00	0.09	0.06

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
Least Flycatcher	RC	0.00	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.01
Eastern Phoebe		0.00	0.05	0.08	0.02	0.10	0.04	0.06	0.05		
Great Crested Flycatcher		0.20	0.55	0.35	0.22	0.20	0.04	0.03	0.23		
Eastern Kingbird		0.48	0.10	0.16	0.29	0.68	0.63	0.48	0.40		
Yellow-throated Vireo		0.00	0.05	0.02	0.00	0.02	0.00	0.03	0.02		
Blue-headed Vireo		0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00		
Warbling Vireo		0.08	0.00	0.02	0.00	0.00	0.11	0.03	0.03		
Red-eyed Vireo		0.16	0.50	0.49	0.22	0.39	0.07	0.06	0.27		
Blue Jay		0.32	0.40	0.37	0.34	0.29	0.37	0.18	0.33		
<i>American Crow</i>		<i>0.88</i>	<i>0.75</i>	<i>0.57</i>	<i>1.07</i>	<i>0.73</i>	<i>0.96</i>	<i>1.12</i>	<i>0.87</i>		
Common Raven		0.04	0.00	0.00	0.00	0.00	0.07	0.00	0.02		
Tree Swallow		0.28	0.40	0.20	0.05	0.66	1.04	0.70	0.47		
Northern Rough-winged Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01		
Barn Swallow		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01		
Black-capped Chickadee		0.40	0.70	0.47	0.49	0.37	0.30	0.36	0.44		
Tufted Titmouse		0.52	0.30	0.31	0.02	0.12	0.04	0.03	0.19		
Red-breasted Nuthatch		0.00	0.00	0.04	0.00	0.02	0.00	0.00	0.01		
White-breasted Nuthatch		0.16	0.15	0.06	0.17	0.27	0.07	0.12	0.14		
Brown Creeper		0.00	0.05	0.14	0.07	0.10	0.00	0.00	0.05		
House Wren		0.32	0.00	0.02	0.05	0.20	0.00	0.09	0.10		
Winter Wren		0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.01		
Blue-gray Gnatcatcher		0.00	0.00	0.06	0.02	0.00	0.04	0.00	0.02		
Eastern Bluebird		0.32	0.00	0.02	0.00	0.24	0.41	0.39	0.20		
Veery	RC	0.04	0.10	0.18	0.27	0.37	0.04	0.15	0.16		
Hermit Thrush		0.00	0.10	0.10	0.20	0.12	0.00	0.03	0.08		
Wood Thrush	RC UCC	0.16	0.50	0.39	0.20	0.34	0.07	0.12	0.25		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

Common Name	PIF Codes	Relative Abundance (birds per point count station)									
		2006	2007	2008	2009	2010	2011	2012	Mean		
American Robin		0.44	0.90	0.63	0.37	0.51	0.96	0.36	0.60		
Gray Catbird		0.20	0.05	0.16	0.17	0.34	0.41	0.12	0.21		
Northern Mockingbird		0.00	0.00	0.00	0.02	0.10	0.11	0.00	0.03		
Brown Thrasher		0.08	0.00	0.00	0.00	0.00	0.00	0.03	0.02		
European Starling		0.40	0.00	0.00	0.17	0.07	0.04	0.00	0.10		
Cedar Waxwing	UCS	0.36	0.60	0.22	0.22	0.34	0.70	0.94	0.48		
Blue-winged Warbler	RC RS UCS	0.20	0.20	0.20	0.07	0.10	0.22	0.06	0.15		
Golden-winged Warbler	RC UCC	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01		
Yellow Warbler		0.32	0.10	0.16	0.12	0.24	0.33	0.09	0.20		
Chestnut-sided Warbler		0.08	0.10	0.20	0.02	0.17	0.00	0.03	0.09		
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.01		
Prairie Warbler		0.08	0.15	0.06	0.00	0.24	0.00	0.24	0.11		
Black-and-white Warbler		0.00	0.00	0.04	0.02	0.02	0.00	0.00	0.01		
American Redstart		0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.02		
Overbird		0.24	1.15	0.82	0.44	0.63	0.04	0.55	0.55		
Northern Waterthrush		0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00		
Louisiana Waterthrush		0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01		
Common Yellowthroat		0.84	0.80	0.94	1.07	1.41	1.48	1.73	1.18		
Scarlet Tanager		0.20	0.20	0.29	0.17	0.22	0.07	0.09	0.18		
Eastern Towhee	RC	0.20	0.30	0.27	0.22	0.39	0.56	0.85	0.40		
Chipping Sparrow		0.40	0.50	0.27	0.32	0.29	0.26	0.48	0.36		
Field Sparrow	CBSD RC	1.08	0.55	0.67	0.76	1.27	1.26	1.15	0.96		
Vesper Sparrow		0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.01		
Savannah Sparrow		0.08	0.00	0.04	0.05	0.00	0.11	0.00	0.04		
Song Sparrow	UCS	1.84	1.20	0.65	1.05	0.95	1.48	1.52	1.24		
Northern Cardinal		0.28	0.15	0.24	0.17	0.10	0.19	0.21	0.19		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>									
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>		
Rose-breasted Grosbeak		0.08	0.05	0.12	0.07	0.00	0.04	0.03	0.06	0.03	0.06
Indigo Bunting		0.04	0.00	0.06	0.00	0.00	0.00	0.03	0.02	0.03	0.02
<i>Bobolink</i>		1.48	0.60	0.65	1.71	3.15	9.19	3.06	2.83	3.06	2.83
<i>Red-winged Blackbird</i>		1.72	0.70	1.82	2.05	3.07	5.41	6.09	2.98	6.09	2.98
<i>Eastern Meadowlark</i>		0.64	0.15	0.43	1.05	0.80	1.26	1.12	0.78	1.12	0.78
Common Grackle		0.12	0.00	0.00	0.02	0.07	0.04	0.03	0.04	0.03	0.04
Brown-headed Cowbird		0.00	0.05	0.06	0.05	0.10	0.04	0.00	0.04	0.00	0.04
Orchard Oriole		0.12	0.00	0.00	0.02	0.00	0.00	0.00	0.02	0.00	0.02
Baltimore Oriole	RC RS UCS	0.44	0.25	0.16	0.17	0.29	0.22	0.00	0.22	0.00	0.22
Purple Finch		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
American Goldfinch	UCS	0.64	1.15	0.94	0.76	1.12	1.22	0.82	0.95	0.82	0.95
Points Surveyed:		25	20	51	41	41	27	33			
Ave # Birds Per Point Count Station:		19.04	16.20	16.27	16.49	23.80	31.74	25.73	21.33		
Species Richness:		60	48	64	57	59	53	57	89		
Shannon Diversity:		3.59	3.45	3.61	3.33	3.41	2.78	3.03			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Vanderbilt Mansion NHS

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Canada Goose		0.14	0.29	0.29	0.14	0.71	0.86	0.00	0.35			
Mallard		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02			
Mourning Dove		0.00	0.00	0.14	0.14	0.00	0.00	0.29	0.08			
Black-billed Cuckoo	CBSD RC RS UCC UCS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02			
Great Horned Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02			
Barred Owl		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02			
Red-bellied Woodpecker		0.43	1.00	0.14	0.57	1.14	0.57	0.57	0.63			
Downy Woodpecker		0.29	0.14	0.14	0.00	0.00	0.00	0.00	0.08			
Hairy Woodpecker		0.00	0.29	0.00	0.29	0.14	0.00	0.00	0.10			
Northern Flicker (Yellow-shafted Flicker)		0.57	0.14	0.00	0.00	0.14	0.00	0.00	0.12			
Pileated Woodpecker		0.14	0.00	0.14	0.00	0.14	0.29	0.00	0.10			
Eastern Wood-Pewee	RC	0.29	0.00	0.00	0.29	0.00	0.14	0.00	0.10			
Eastern Phoebe		0.14	0.00	0.29	0.14	0.00	0.00	0.00	0.08			
Great Crested Flycatcher		0.14	0.71	0.57	0.86	1.14	1.00	0.14	0.65			
Red-eyed Vireo		0.71	1.29	0.57	0.86	1.14	1.14	0.71	0.92			
Blue Jay		0.29	0.43	0.00	0.00	0.00	0.00	0.00	0.10			
American Crow		0.86	0.43	0.29	0.43	0.43	0.86	1.00	0.61			
Fish Crow		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02			
Tufted Titmouse		0.71	0.57	0.29	1.29	1.14	1.57	0.14	0.82			
White-breasted Nuthatch		0.00	0.71	0.00	0.57	0.14	0.29	0.29	0.29			
Carolina Wren		0.00	0.00	0.57	0.00	0.14	0.00	0.00	0.10			
House Wren		0.00	0.14	0.14	0.00	0.00	0.00	0.00	0.04			
Eastern Bluebird		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02			
Wood Thrush	RC UCC	0.86	1.14	0.57	0.29	1.00	0.00	1.57	0.78			
American Robin		0.00	0.00	0.29	0.57	0.14	0.43	0.57	0.29			
American Redstart		0.14	0.29	0.00	0.29	0.00	0.00	0.00	0.10			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Vanderbilt Mansion NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
Worm-eating Warbler		0.00	0.29	0.14	0.14	0.14	0.00	0.00	0.00	0.14	0.00	0.10
Ovenbird		0.00	0.14	0.29	0.00	0.14	0.00	0.00	0.14	0.00	0.14	0.10
Louisiana Waterthrush		0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.14	0.00	0.02
Common Yellowthroat		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Scarlet Tanager		0.43	0.00	0.14	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Chipping Sparrow		0.29	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.14	0.14	0.12
<i>Northern Cardinal</i>		1.14	0.86	0.86	0.86	1.00	0.86	0.86	0.86	0.86	0.86	0.92
Rose-breasted Grosbeak		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Indigo Bunting		0.29	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Red-winged Blackbird		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.04
Common Grackle		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02
<i>Points Surveyed:</i>		7	7	7	7	7	7	7	7	7	7	
<i>Ave # Birds Per Point Count Station:</i>		8.43	9.00	6.14	8.29	9.29	8.14	8.14	7.00			8.04
<i>Species Richness:</i>		22	18	20	18	19	12	15				37
<i>Shannon Diversity:</i>		2.84	2.64	2.80	2.67	2.56	2.28	2.28				2.38

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Weir Farm NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Red-shouldered Hawk		0.00			0.00	0.00		0.40		0.10
Red-tailed Hawk		0.00			0.20	0.00		0.00		0.05
Mourning Dove		0.00			0.00	0.20		0.00		0.05
Red-bellied Woodpecker		0.00			0.20	0.40		0.00		0.15
Downy Woodpecker		0.20			0.60	1.00		0.40		0.55
Hairy Woodpecker		0.00			0.00	0.00		0.20		0.05
Northern Flicker (Yellow-shafted Flicker)		0.20			0.00	0.20		0.00		0.10
Eastern Wood-Pewee	RC	0.00			0.40	0.20		0.20		0.20
Eastern Phoebe		0.20			0.00	0.00		0.60		0.20
Great Crested Flycatcher		0.20			0.00	0.40		0.00		0.15
Yellow-throated Vireo	RC	0.20			0.00	0.00		0.00		0.05
Warbling Vireo		0.20			0.00	0.00		0.00		0.05
Red-eyed Vireo		0.20			0.40	1.00		0.00		0.40
Blue Jay		0.40			0.20	0.00		0.20		0.20
American Crow		0.80			0.60	0.40		0.80		0.65
Black-capped Chickadee		0.00			0.20	0.60		0.00		0.20
Tufted Titmouse		1.20			1.20	1.20		0.80		1.10
White-breasted Nuthatch		0.20			0.20	1.20		0.80		0.60
Carolina Wren		0.20			0.00	0.00		0.00		0.05
House Wren		0.40			0.20	0.00		0.00		0.15
Wood Thrush	RC UCC	0.00			0.20	0.00		0.20		0.10
American Robin		0.00			0.20	0.40		1.00		0.40
Gray Catbird	UCS	0.00			0.20	0.80		0.60		0.40
Yellow Warbler		0.00			0.00	0.00		0.20		0.05
Blackpoll Warbler		0.00			0.20	0.00		0.00		0.05
American Redstart		0.20			0.00	0.00		0.00		0.05

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix A. Park Summaries (continued).

Weir Farm NHS

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Ovenbird		0.20			0.00	0.00	0.00	0.00	0.00	0.05
Scarlet Tanager	RC	0.00			0.20	0.00	0.00	0.00	0.00	0.05
Chipping Sparrow		0.20			0.00	0.40	0.60	0.20	0.30	0.30
Song Sparrow		0.00			0.20	0.40	0.20	0.20	0.20	0.20
Northern Cardinal		0.80			0.40	0.40	0.20	0.20	0.45	0.45
Red-winged Blackbird		0.20			0.00	0.00	0.00	0.00	0.05	0.05
Common Grackle		0.00			0.20	1.20	0.00	0.00	0.35	0.35
Baltimore Oriole	RC	0.20			0.00	0.00	0.00	0.00	0.05	0.05
American Goldfinch		0.00			0.00	0.20	0.20	0.20	0.10	0.10
<i>Points Surveyed:</i>		5			5	5	5	5	5	
<i>Ave # Birds Per Point Count Station:</i>		6.40			6.20	10.60	7.60	7.60	7.70	
<i>Species Richness:</i>		19			19	18	17	17	35	
<i>Shannon Diversity:</i>		2.70			2.74	2.71	2.65	2.65		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B—Site Summaries

This appendix contains the species list for each study site (when more than one site was surveyed within a park), and the relative abundance (birds per point count station) of each species for each year. It only includes data for the first survey of each point count station in a given year, in order to promote consistent comparisons between years and to avoid artificially inflating abundances due to counting the same individuals in repeat visits. Species in boldface are Partners in Flight (PIF) priority species, and species in italics are the 10 most common species for each park. There will occasionally be more than 10 italicized species, if multiple species have the same abundance.

Beginning with this report, we have included the PIF Priority Species codes. If these tables are compared with those from previous years, you will note an increase in the number of PIF Priority species designated for each site. This is due to the fact that we are now including “stewardship” species, in addition to those of regional or USA/Canada concern, as well as relatively common species that are exhibiting significant population declines. For more information about the PIF Species Assessment, go to <http://pif.rmbo.org/>.

This appendix also lists the number of point count stations surveyed per site each year, the number of birds detected per point count, the species richness, and the Shannon diversity index for each site for each year.

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Schoodic

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Spruce Grouse		0.00				0.17	0.00		0.06
Herring Gull		0.00				0.00	0.17		0.06
Downy Woodpecker		0.00				0.33	0.00		0.11
Hairy Woodpecker	UCS	0.67				0.17	0.00		0.28
Yellow-bellied Flycatcher		0.00				0.83	0.50		0.44
Least Flycatcher		0.17				0.00	0.00		0.06
Great Crested Flycatcher		0.17				0.00	0.00		0.06
Blue-headed Vireo	UCS	0.00				0.33	1.00		0.44
Red-eyed Vireo	UCS	0.00				0.67	0.00		0.22
American Crow		0.17				0.83	0.17		0.39
Black-capped Chickadee	UCS	0.00				0.50	0.17		0.22
Boreal Chickadee	CBSD RC	1.00				0.00	0.00		0.33
Red-breasted Nuthatch		0.17				1.50	0.67		0.78
Brown Creeper		0.00				0.50	0.00		0.17
Winter Wren	UCS	0.00				1.17	1.17		0.78
Golden-crowned Kinglet		0.00				1.50	0.67		0.72
Ruby-crowned Kinglet		0.33				0.17	0.17		0.22
Veery	RC RS UCS	0.00				0.17	0.00		0.06
Swainson's Thrush		0.00				0.17	0.83		0.33
Hermit Thrush		0.67				0.67	0.67		0.67
Wood Thrush	RC UCC	0.17				0.00	0.00		0.06
American Robin		0.33				0.00	0.00		0.11
Nashville Warbler		0.00				0.33	0.50		0.28
Chestnut-sided Warbler		0.33				0.00	0.00		0.11
Magnolia Warbler	UCS	0.00				1.00	0.50		0.50

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Schoodic

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Black-throated Blue Warbler	RS UCS		0.33			0.00	0.00		0.11
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>			<i>0.17</i>			<i>0.67</i>	<i>0.50</i>		<i>0.44</i>
Black-throated Green Warbler	RS UCS		1.00			3.33	1.50		1.94
Palm Warbler			0.00			0.00	0.17		0.06
Black-and-white Warbler	RS UCS		0.17			0.00	0.00		0.06
American Redstart	RS UCS		0.00			0.17	0.00		0.06
Common Yellowthroat	UCS		0.00			0.00	0.17		0.06
Eastern Towhee			0.17			0.00	0.00		0.06
White-throated Sparrow			0.00			0.67	0.33		0.33
<i>Dark-eyed Junco (Slate-colored Junco)</i>			<i>0.33</i>			<i>1.50</i>	<i>0.33</i>		<i>0.72</i>
Purple Finch	RS UCS		0.00			0.00	0.17		0.06
White-winged Crossbill			0.00			0.33	0.00		0.11
Points Surveyed:			6			6	6		
Ave # Birds Per Point Count Station:			6.33			17.67	10.33		11.44
Species Richness:			17			24	20		37
Shannon Diversity:			2.60			2.83	2.76		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Giant Slide Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Ruffed Grouse	CBSD	0.00	0.00	0.00	0.00	0.00	0.11	0.03	0.03
Common Loon		0.00	0.10	0.00	0.00	0.00	0.00	0.03	0.03
Mourning Dove		0.44	0.30	0.30	0.30	0.00	0.00	0.26	0.26
Hairy Woodpecker	UCS	0.11	0.00	0.00	0.00	0.00	0.00	0.03	0.03
Pileated Woodpecker		0.11	0.10	0.10	0.10	0.22	0.22	0.13	0.13
Alder Flycatcher		0.11	0.00	0.00	0.00	0.00	0.00	0.03	0.03
Least Flycatcher		0.00	0.00	0.20	0.20	0.00	0.00	0.05	0.05
Blue-headed Vireo	UCS	0.78	0.50	0.60	0.60	0.00	0.00	0.47	0.47
Blue Jay		0.44	0.10	0.50	0.50	0.00	0.00	0.26	0.26
American Crow		0.33	0.50	0.30	0.30	0.00	0.00	0.28	0.28
Common Raven		0.22	0.00	0.10	0.10	0.00	0.00	0.08	0.08
Black-capped Chickadee	UCS	0.11	0.60	0.90	0.90	0.33	0.33	0.49	0.49
Red-breasted Nuthatch		0.67	0.40	0.60	0.60	0.11	0.11	0.44	0.44
Brown Creeper		0.11	0.40	0.20	0.20	0.00	0.00	0.18	0.18
Winter Wren	UCS	0.22	0.10	0.00	0.00	0.00	0.00	0.08	0.08
Golden-crowned Kinglet		0.67	1.40	0.70	0.70	0.11	0.11	0.72	0.72
Veery	RC RS UCS	0.00	0.00	0.00	0.00	0.11	0.11	0.03	0.03
Hermit Thrush		0.22	0.10	1.00	1.00	0.11	0.11	0.36	0.36
American Robin		0.89	0.70	0.60	0.60	0.22	0.22	0.60	0.60
Brown Thrasher	RC	0.11	0.00	0.00	0.00	0.00	0.00	0.03	0.03
Cedar Waxwing	UCS	0.33	0.10	0.30	0.30	0.22	0.22	0.24	0.24
Black-throated Blue Warbler	RS UCS	0.00	0.70	0.50	0.50	0.22	0.22	0.36	0.36
Yellow-rumped Warbler (Myrtle Warbler)		0.11	0.30	0.70	0.70	0.22	0.22	0.33	0.33
Black-throated Green Warbler	RS UCS	2.78	2.90	2.20	2.20	1.44	1.44	2.33	2.33
Blackburnian Warbler	RS UCS	0.33	0.50	0.50	0.50	0.00	0.00	0.33	0.33

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Giant Slide Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Blackpoll Warbler		0.00	0.00	0.00	0.00	0.11		0.03	
Black-and-white Warbler	RS UCS	0.33	0.10	0.20	0.20	1.22		0.46	
Ovenbird	UCS	1.11	2.30	1.70	1.70	1.56		1.67	
Dark-eyed Junco (Slate-colored Junco)		0.11	0.10	0.50	0.50	0.00		0.18	
Purple Finch	RS UCS	0.11	0.10	0.10	0.10	0.00		0.08	
Pine Siskin	CBSD	0.56	1.00	0.10	0.10	0.00		0.41	
<i>Points Surveyed:</i>									
		9	10	10	10	9			
<i>Ave # Birds Per Point Count Station:</i>									
		11.33	13.40	12.90	12.90	6.33		10.99	
<i>Species Richness:</i>									
		25	23	23	23	15		31	
<i>Shannon Diversity:</i>									
		2.75	2.59	2.81	2.81	2.17			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Witch Hole Pond

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Ruffed Grouse	CBSD				0.00	0.11	0.00	0.04	0.04
Broad-winged Hawk	RS UCS				0.00	0.00	0.11	0.04	0.04
<i>Mourning Dove</i>					0.89	0.33	0.22	0.48	0.48
Northern Flicker (Yellow-shafted Flicker)					0.11	0.11	0.00	0.07	0.07
Pileated Woodpecker					0.00	0.00	0.11	0.04	0.04
Eastern Wood-Pewee	RC				0.44	0.00	0.00	0.15	0.15
Alder Flycatcher					0.00	0.11	0.11	0.07	0.07
Eastern Phoebe					0.11	0.00	0.00	0.04	0.04
Great Crested Flycatcher					0.67	0.22	0.00	0.30	0.30
Blue-headed Vireo	UCS				0.33	0.22	0.44	0.33	0.33
Warbling Vireo					0.00	0.11	0.00	0.04	0.04
Red-eyed Vireo	UCS				1.22	0.22	0.44	0.63	0.63
Blue Jay					0.44	0.00	0.00	0.15	0.15
American Crow					0.11	0.44	0.11	0.22	0.22
Black-capped Chickadee	UCS				0.89	0.00	0.11	0.33	0.33
Red-breasted Nuthatch					0.22	0.00	0.22	0.15	0.15
Brown Creeper					0.00	0.11	0.22	0.11	0.11
Golden-crowned Kinglet					0.00	0.00	0.11	0.04	0.04
Veery	RC RS UCS				0.11	0.00	0.00	0.04	0.04
<i>Hermit Thrush</i>					0.78	0.22	0.33	0.44	0.44
<i>American Robin</i>					0.33	0.22	0.33	0.30	0.30
Nashville Warbler					0.11	0.22	0.22	0.19	0.19
Magnolia Warbler	UCS				0.00	0.11	0.00	0.04	0.04
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>					0.78	0.89	0.11	0.59	0.59
Black-throated Green Warbler	RS UCS				1.89	1.11	1.78	1.59	1.59

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Witch Hole Pond

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Blackburnian Warbler	RS UCS			0.00	0.00	0.11	0.04	0.04	
Pine Warbler				0.00	0.00	0.33	0.11	0.11	
Black-and-white Warbler	RS UCS			0.33	0.22	0.11	0.22	0.22	
Ovenbird	UCS			1.33	0.44	0.78	0.85	0.85	
Common Yellowthroat	UCS			0.00	0.11	0.11	0.07	0.07	
Scarlet Tanager	RC			0.00	0.00	0.11	0.04	0.04	
Song Sparrow	UCS			0.00	0.00	0.11	0.04	0.04	
Swamp Sparrow				0.00	0.00	0.11	0.04	0.04	
Dark-eyed Junco (Slate-colored Junco)				0.11	0.00	0.00	0.04	0.04	
Rose-breasted Grosbeak				0.00	0.00	0.11	0.04	0.04	
Baltimore Oriole				0.00	0.11	0.00	0.04	0.04	
Pine Siskin	CBSD			0.11	0.00	0.00	0.04	0.04	
American Goldfinch				0.22	0.00	0.33	0.19	0.19	
		<i>Points Surveyed:</i>		9	9	9			
		<i>Ave # Birds Per Point Count Station:</i>		11.56	5.67	7.22	8.15		
		<i>Species Richness:</i>		22	20	26	38		
		<i>Shannon Diversity:</i>		2.73	2.68	2.82			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove Center

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Common Loon		0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.03
Herring Gull		0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.03
Mourning Dove		1.00	1.33	0.00	0.17	0.00	0.00	0.00	0.42
Downy Woodpecker		0.00	0.00	0.00	0.00	0.17	0.17	0.00	0.06
Hairy Woodpecker	UCS	0.17	0.00	0.00	0.17	0.83	0.33	0.17	0.28
Pileated Woodpecker		0.50	0.00	0.00	0.00	0.00	0.17	0.17	0.14
Yellow-bellied Flycatcher		0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.03
Least Flycatcher		0.50	0.33	0.50	0.50	0.50	0.00	0.00	0.31
Blue-headed Vireo	UCS	0.33	1.00	0.67	0.67	0.33	0.50	0.17	0.50
Blue Jay		0.00	0.17	0.00	0.00	0.17	0.00	0.00	0.06
American Crow		0.17	0.00	0.00	0.00	0.00	0.17	0.17	0.08
Common Raven		0.50	0.00	0.00	1.00	0.50	0.33	0.33	0.44
Black-capped Chickadee	UCS	0.33	0.17	0.00	0.00	0.00	0.17	0.17	0.14
Red-breasted Nuthatch		0.50	0.17	0.00	0.00	0.33	0.67	1.33	0.50
Brown Creeper		0.17	0.00	0.00	0.00	0.33	0.17	0.00	0.11
Winter Wren	UCS	0.33	0.17	0.00	0.00	0.50	0.67	0.00	0.28
Golden-crowned Kinglet		0.17	0.50	0.00	0.00	0.00	0.50	0.00	0.19
Swainson's Thrush		0.33	0.00	0.00	0.00	0.33	0.33	0.67	0.28
Hermit Thrush		0.50	0.00	0.00	0.00	0.33	0.17	0.83	0.31
Magnolia Warbler	UCS	0.33	0.17	0.00	0.00	0.00	0.00	0.00	0.08
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.00	0.17	0.00	0.00	0.17	0.06
Black-throated Green Warbler	RS UCS	1.33	1.00	1.00	1.00	1.17	1.33	1.00	1.14
Blackburnian Warbler	RS UCS	0.17	0.33	0.33	0.17	0.00	0.17	0.33	0.19
Pine Warbler		0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.03
Ovenbird	UCS	0.33	0.50	1.83	0.50	0.50	1.17	0.50	0.81

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove Center

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
Dark-eyed Junco (Slate-colored Junco)		0.17	0.17	0.17	0.33	0.17	0.17	0.17	0.19
Purple Finch	RS UCS	0.50	0.17	0.17	0.50	0.17	0.00	0.17	0.25
White-winged Crossbill		0.00	0.00	0.00	0.00	0.17	0.00	0.17	0.06
Pine Siskin	CBSD	0.00	0.33	0.33	0.00	0.00	0.00	0.00	0.06
<i>Points Surveyed:</i>									
		6	6	6	6	6	6	6	
<i>Ave # Birds Per Point Count Station:</i>									
		8.33	6.50	6.67	6.67	6.67	7.33	6.67	7.03
<i>Species Richness:</i>									
		20	15	12	12	17	18	17	29
<i>Shannon Diversity:</i>									
		2.80	2.41	2.15	2.15	2.64	2.60	2.51	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Herring Gull		0.14	0.00	0.00	0.00	0.14	0.00	0.00	0.05
<i>Mourning Dove</i>		1.29	0.43	0.14	0.14	0.29	0.14	0.57	0.48
Barrèd Owl		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Ruby-throated Hummingbird		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02
Downy Woodpecker		0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Hairy Woodpecker	UCS	0.00	0.00	0.43	0.14	0.00	0.00	0.14	0.12
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02
Pileated Woodpecker		0.14	0.14	0.00	0.00	0.29	0.14	0.00	0.12
Least Flycatcher		0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Eastern Phoebe		0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02
Blue-headed Vireo	UCS	0.14	0.43	0.43	0.14	0.14	0.14	0.14	0.24
Red-eyed Vireo	UCS	0.00	0.14	0.00	0.00	0.14	0.00	0.00	0.05
Blue Jay		0.14	0.29	0.00	0.00	0.14	0.29	0.43	0.21
<i>American Crow</i>		0.86	0.86	0.71	0.71	1.57	0.29	0.14	0.74
<i>Common Raven</i>		0.57	0.29	0.29	0.29	0.29	0.43	0.00	0.31
Black-capped Chickadee	UCS	0.29	0.14	0.14	0.14	0.14	0.14	0.00	0.14
<i>Red-breasted Nuthatch</i>		0.71	0.14	0.43	0.43	0.86	0.43	0.57	0.52
Brown Creeper		0.00	0.57	0.43	0.43	0.29	0.14	0.14	0.26
Winter Wren	UCS	0.43	0.43	0.43	0.14	0.43	0.43	0.14	0.33
<i>Golden-crowned Kinglet</i>		0.43	0.29	0.57	0.57	0.14	1.00	0.14	0.43
Swainson's Thrush		0.29	0.14	0.00	0.00	0.00	0.14	0.14	0.12
Hermit Thrush		0.29	0.00	0.57	0.57	0.14	0.14	0.29	0.24
<i>American Robin</i>		0.57	0.00	0.29	0.29	0.43	0.29	0.29	0.31
Northern Parula	UCS	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Magnolia Warbler	UCS	0.29	0.43	0.00	0.00	0.14	0.43	0.29	0.26

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove East

Common Name	PIF Codes	Relative Abundance (birds per point count station)										Mean
		2006	2007	2008	2009	2010	2011	2012				
Black-throated Blue Warbler	RS UCS		0.00	0.00	0.43	0.00	0.00	0.14	0.00	0.14	0.10	
Yellow-rumped Warbler (Myrtle Warbler)			0.29	0.57	0.71	0.71	0.14	0.14	0.14	0.40		
Black-throated Green Warbler	RS UCS		1.43	1.14	0.71	1.71	1.14	1.29	1.24			
Blackburnian Warbler	RS UCS		0.43	0.29	0.14	0.29	0.29	0.14	0.26			
Blackpoll Warbler			0.00	0.14	0.00	0.00	0.00	0.00	0.02			
Ovenbird	UCS		1.14	1.00	1.00	0.86	0.43	0.71	0.86			
Common Yellowthroat	UCS		0.00	0.14	0.00	0.00	0.14	0.14	0.07			
Swamp Sparrow			0.00	0.00	0.29	0.00	0.00	0.14	0.07			
Dark-eyed Junco (State-colored Junco)			0.43	0.29	0.71	0.71	0.57	0.86	0.60			
Northern Cardinal			0.00	0.00	0.00	0.00	0.14	0.00	0.02			
Red-winged Blackbird			0.14	0.29	0.14	0.00	0.14	0.14	0.14			
Common Grackle			0.14	0.00	0.00	0.00	0.00	0.00	0.02			
Purple Finch	RS UCS		0.14	0.14	0.14	0.43	0.00	0.00	0.14			
Pine Siskin	CBSD		0.43	0.43	0.00	0.14	0.14	0.00	0.19			
American Goldfinch			0.00	0.00	0.00	0.00	0.29	0.00	0.05			
		Points Surveyed:	7	7	7	7	7	7	7			
		Ave # Birds Per Point Count Station:	11.29	9.14	9.14	10.86	8.14	7.14	9.29			
		Species Richness:	25	24	24	26	26	22	40			
		Shannon Diversity:	2.94	2.96	2.99	2.88	3.00	2.77				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove West

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Ruffed Grouse	CBSD	0.00	0.17	0.00	0.17	0.08			0.08
Herring Gull		0.20	0.00	0.10					0.10
Mourning Dove		1.40	0.00	0.70					0.70
Hairy Woodpecker	UCS	0.00	0.50	0.25					0.25
Northern Flicker (Yellow-shafted Flicker)		0.20	0.17	0.18					0.18
Eastern Wood-Pewee	RC	0.20	0.00	0.10					0.10
Least Flycatcher		0.00	0.17	0.08					0.08
Blue-headed Vireo	UCS	0.00	0.33	0.17					0.17
Red-eyed Vireo	UCS	0.00	0.17	0.08					0.08
American Crow		0.60	0.00	0.30					0.30
Common Raven		0.20	0.00	0.10					0.10
Black-capped Chickadee	UCS	0.60	0.17	0.38					0.38
Red-breasted Nuthatch		0.20	0.33	0.27					0.27
Brown Creeper		0.00	0.50	0.25					0.25
Winter Wren	UCS	0.20	0.00	0.10					0.10
Golden-crowned Kinglet		0.00	0.67	0.33					0.33
Swainson's Thrush		1.20	0.83	1.02					1.02
Hermit Thrush		0.00	0.67	0.33					0.33
American Robin		0.00	0.17	0.08					0.08
Magnolia Warbler	UCS	0.20	0.17	0.18					0.18
Black-throated Blue Warbler	RS UCS	0.20	0.17	0.18					0.18
Yellow-rumped Warbler (Myrtle Warbler)		0.20	0.17	0.18					0.18
Black-throated Green Warbler	RS UCS	0.40	1.50	0.95					0.95
Blackburnian Warbler	RS UCS	0.20	0.17	0.18					0.18
Black-and-white Warbler	RS UCS	0.00	0.33	0.17					0.17

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Seal Cove West

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Ovenbird	UCS	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Song Sparrow	UCS	0.00	0.17	0.08	0.17	0.08	0.17	0.08	0.08
White-throated Sparrow		0.00	0.17	0.08	0.17	0.08	0.17	0.08	0.08
Dark-eyed Junco (Slate-colored Junco)		0.00	0.33	0.17	0.33	0.17	0.33	0.17	0.17
Purple Finch	RS UCS	0.20	0.00	0.10	0.00	0.10	0.00	0.10	0.10
Pine Siskin	CBSD	0.00	0.17	0.08	0.17	0.08	0.17	0.08	0.08
<i>Points Surveyed:</i>									
		5	6						
<i>Ave # Birds Per Point Count Station:</i>									
		7.40	9.17	8.28					
<i>Species Richness:</i>									
		17	24	31					
<i>Shannon Diversity:</i>									
		2.52	2.88						

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Youngs Mtn

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Downy Woodpecker					0.14				0.14
Eastern Wood-Pewee	RC				0.29				0.29
Great Crested Flycatcher					0.29				0.29
Red-eyed Vireo	UCS				0.57				0.57
Blue Jay					1.14				1.14
Black-capped Chickadee	UCS				1.29				1.29
Brown Creeper					0.14				0.14
Swainson's Thrush					0.14				0.14
Hermit Thrush					2.57				2.57
Cedar Waxwing	UCS				0.14				0.14
Black-throated Blue Warbler	RS UCS				0.57				0.57
Yellow-rumped Warbler (Myrtle Warbler)					0.57				0.57
Black-throated Green Warbler	RS UCS				1.14				1.14
Black-and-white Warbler	RS UCS				0.86				0.86
Ovenbird	UCS				1.14				1.14
Points Surveyed:									
					7				
Ave # Birds Per Point Count Station:									
					11.00				11.00
Species Richness:									
					15				15
Shannon Diversity:									
					2.37				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
Broad-winged Hawk	RS UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mourning Dove		0.20	0.00	0.10	0.20	0.40	0.00	0.00	0.10	0.00	0.10	0.14
Barréd Owl		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.03
Chimney Swift	CBSD	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Yellow-bellied Sapsucker	UCS	0.10	0.30	0.30	0.00	0.20	0.30	0.20	0.30	0.30	0.30	0.21
Downy Woodpecker		0.20	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.07
Hairy Woodpecker	UCS	0.00	0.20	0.30	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.09
Pileated Woodpecker		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.06
Eastern Wood-Pewee	RC	0.10	0.30	0.20	0.40	0.30	0.30	0.30	0.30	0.30	0.20	0.26
Great Crested Flycatcher		0.00	0.10	0.10	0.00	0.00	0.10	0.00	0.10	0.10	0.10	0.06
Blue-headed Vireo	UCS	0.00	0.10	0.30	0.20	0.30	0.00	0.30	0.00	0.30	0.30	0.17
Red-eyed Vireo	UCS	2.60	1.80	1.70	1.20	1.40	1.90	1.40	1.90	1.20	1.20	1.69
<i>Blue Jay</i>		0.20	0.80	0.40	0.50	0.10	0.40	0.10	0.40	0.40	0.80	0.46
American Crow		0.40	0.40	0.20	0.20	0.20	0.40	0.20	0.40	0.40	0.50	0.33
Common Raven		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.03
Black-capped Chickadee	UCS	0.30	1.10	0.40	0.60	0.30	0.70	0.30	0.70	0.20	0.20	0.51
Tufted Titmouse		0.10	0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
White-breasted Nuthatch		0.20	0.20	0.10	0.00	0.20	0.20	0.20	0.20	0.20	0.10	0.14
<i>Brown Creeper</i>		0.70	0.40	0.40	0.50	0.20	0.10	0.20	0.10	0.10	0.10	0.34
Winter Wren	UCS	0.00	0.00	0.40	0.10	0.10	0.00	0.10	0.00	0.00	0.00	0.09
Golden-crowned Kinglet		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Veery	RC RS UCS	0.20	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.06
<i>Hermit Thrush</i>		0.50	0.70	1.00	0.50	0.50	0.50	0.50	0.50	0.50	0.90	0.66
Wood Thrush	RC UCC	0.00	0.00	0.30	0.00	0.50	0.20	0.50	0.20	0.20	0.00	0.14

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>American Robin</i>		0.40	0.40	0.20	0.50	0.70	0.10	0.50	0.40
Black-throated Blue Warbler	RS UCS	0.00	0.10	0.00	0.10	0.00	0.00	0.30	0.07
Black-throated Green Warbler	RS UCS	0.80	0.70	0.50	0.40	0.50	0.80	0.70	0.63
Blackburnian Warbler	RS UCS	0.80	0.70	0.70	0.80	0.80	0.70	0.70	0.74
Pine Warbler		0.00	0.10	0.20	0.10	0.30	0.30	0.10	0.16
Black-and-white Warbler	RS UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
Ovenbird	UCS	2.60	3.70	3.20	3.00	2.60	2.80	2.70	2.94
Louisiana Waterthrush		0.00	0.20	0.00	0.00	0.00	0.20	0.00	0.06
Common Yellowthroat	UCS	0.00	0.10	0.10	0.00	0.10	0.00	0.00	0.04
Scarlet Tanager	RC	0.20	0.20	0.40	0.60	0.50	0.50	0.10	0.36
Chipping Sparrow		0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.01
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.03
Dark-eyed Junco (Slate-colored Junco)		0.00	0.30	0.00	0.10	0.20	0.00	0.00	0.09
Rose-breasted Grosbeak		0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.03
Indigo Bunting		0.00	0.20	0.00	0.00	0.00	0.10	0.00	0.04
Brown-headed Cowbird		0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.06
American Goldfinch		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
Points Surveyed:		10	10	10	10	10	10	10	
Ave # Birds Per Point Count Station:		11.00	13.80	11.70	10.40	10.70	11.20	10.40	11.31
Species Richness:		22	30	24	22	24	25	23	42
Shannon Diversity:		2.45	2.73	2.62	2.55	2.71	2.63	2.60	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
Broad-winged Hawk	RS UCS	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mourning Dove		0.00	0.20	0.20	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.10
Barréd Owl		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Yellow-bellied Sapsucker	UCS	0.00	0.30	0.00	0.50	0.30	0.40	0.00	0.00	0.00	0.00	0.21
Downy Woodpecker		0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Hairy Woodpecker	UCS	0.40	0.30	0.20	0.00	0.00	0.10	0.20	0.00	0.00	0.20	0.17
Northern Flicker (Yellow-shafted Flicker)		0.00	0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Pileated Woodpecker		0.20	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Eastern Wood-Pewee	RC	0.80	0.80	1.40	0.60	0.70	1.00	0.70	1.00	0.70	0.70	0.86
Least Flycatcher		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.20	0.00	0.80	0.20	0.30	0.10	0.30	0.10	0.10	0.10	0.24
Blue-headed Vireo	UCS	0.70	0.30	0.00	0.10	0.20	0.20	0.00	0.20	0.00	0.00	0.21
Red-eyed Vireo	UCS	2.70	1.70	3.80	3.20	2.80	2.80	2.80	2.80	2.30	2.30	2.76
<i>Blue Jay</i>		0.80	0.60	0.60	0.60	0.50	0.70	0.60	0.70	0.60	0.60	0.63
American Crow		0.00	0.30	0.20	0.30	0.20	0.30	0.20	0.30	0.20	0.20	0.21
Common Raven		0.10	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.07
Black-capped Chickadee	UCS	0.20	0.40	0.60	0.40	0.30	0.20	0.00	0.20	0.00	0.00	0.30
Red-breasted Nuthatch		0.00	0.20	0.00	0.10	0.30	0.10	0.30	0.10	0.00	0.00	0.10
White-breasted Nuthatch		0.40	0.20	0.00	0.40	0.10	0.10	0.10	0.10	0.10	0.10	0.19
Brown Creeper		0.30	0.50	0.20	0.30	0.30	0.10	0.30	0.10	0.00	0.00	0.24
Winter Wren	UCS	0.10	0.10	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.04
Golden-crowned Kinglet		0.00	0.10	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.03
Veery	RC RS UCS	0.10	0.10	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
<i>Hermit Thrush</i>		0.80	0.40	0.80	1.40	1.20	1.10	1.20	1.10	0.80	0.80	0.93
Wood Thrush	RC UCC	0.70	0.60	0.60	0.40	0.50	0.40	0.50	0.40	0.80	0.80	0.57

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
<i>American Robin</i>		1.20	0.40	0.20	0.50	0.50	0.70	0.50	0.57	
Cedar Waxwing	UCS	0.00	0.00	0.20	0.00	0.00	0.20	0.10	0.07	
Chestnut-sided Warbler		0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	
Black-throated Blue Warbler	RS UCS	0.40	0.50	0.60	0.60	0.40	0.30	0.40	0.46	
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.06	
Black-throated Green Warbler	RS UCS	1.50	0.60	1.20	0.60	0.50	1.00	0.40	0.83	
Blackburnian Warbler	RS UCS	0.90	0.70	0.00	0.60	0.10	0.30	0.10	0.39	
Pine Warbler		0.00	0.00	0.00	0.30	0.10	0.00	0.00	0.06	
Black-and-white Warbler	RS UCS	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.03	
American Redstart	RS UCS	0.10	0.10	0.00	0.10	0.00	0.00	0.00	0.04	
Ovenbird	UCS	4.50	2.60	4.80	4.60	3.50	4.40	4.30	4.10	
Mourning Warbler		0.00	0.00	0.00	0.10	0.20	0.00	0.00	0.04	
Common Yellowthroat	UCS	0.10	0.00	0.00	0.00	0.00	0.10	0.00	0.03	
Scarlet Tanager	RC	0.30	0.80	0.00	0.50	0.40	0.50	0.80	0.47	
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.60	0.20	0.00	0.20	0.80	1.00	0.60	0.49	
Rose-breasted Grosbeak		0.60	0.10	0.00	0.50	0.30	0.00	0.20	0.24	
Common Grackle		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01	
Brown-headed Cowbird		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01	
Purple Finch	RS UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01	
American Goldfinch		0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>		10	10	5	10	10	10	10	16.06
<i>Species Richness:</i>		18.90	13.60	17.00	17.50	15.20	16.40	13.80	45
<i>Shannon Diversity:</i>		27	31	18	27	27	26	22	2.43
		2.72	2.98	2.30	2.65	2.72	2.57	2.43	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
Wild Turkey		0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.06
Mourning Dove		0.20	0.40	0.20	0.40	0.20	0.00	0.20	0.00	0.00	0.00	0.20
Barréd Owl		0.00	1.20	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Yellow-bellied Sapsucker	UCS	0.40	0.40	0.20	0.00	0.40	0.00	0.60	0.40	0.60	0.40	0.34
Downy Woodpecker		0.40	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.11
Northern Flicker (Yellow-shafted Flicker)		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Pileated Woodpecker		0.00	0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.20	0.00	0.06
Eastern Wood-Pewee	RC	1.20	1.40	0.40	0.60	0.40	0.60	0.40	0.20	0.60	0.20	0.69
Least Flycatcher		0.20	0.60	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Great Crested Flycatcher		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.06
Eastern Kingbird	RC	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Blue-headed Vireo	UCS	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.40	0.40	0.20	0.17
Red-eyed Vireo	UCS	1.40	2.00	0.20	1.20	3.00	1.20	1.60	1.60	1.60	1.60	1.57
Blue Jay		0.80	1.40	0.20	0.60	0.20	0.20	0.40	0.80	0.40	0.80	0.63
American Crow		0.20	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Common Raven		0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.20	0.00	0.06
Black-capped Chickadee	UCS	0.60	1.20	0.60	0.80	0.20	0.20	0.20	0.20	0.20	0.40	0.57
Tufted Titmouse		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Red-breasted Nuthatch		0.20	0.00	0.00	0.00	0.20	0.00	0.20	0.20	0.20	0.00	0.09
<i>White-breasted Nuthatch</i>		<i>0.40</i>	<i>0.80</i>	<i>0.20</i>	<i>1.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.40</i>	<i>0.43</i>
<i>Brown Creeper</i>		<i>0.60</i>	<i>0.80</i>	<i>0.60</i>	<i>0.20</i>	<i>0.40</i>	<i>0.20</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.60</i>	<i>0.46</i>
Golden-crowned Kinglet		0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Veery	RC RS UCS	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.06
<i>Hermit Thrush</i>		<i>0.00</i>	<i>1.40</i>	<i>1.40</i>	<i>1.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.60</i>
Wood Thrush	RC UCC	0.60	0.00	0.20	0.00	0.40	0.00	0.40	0.20	0.20	0.20	0.23

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>American Robin</i>		0.60	1.60	0.80	0.60	1.20	0.00	1.00	0.83
Cedar Waxwing	UCS	0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.06
Nashville Warbler		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.03
Chestnut-sided Warbler		0.00	0.00	0.20	0.00	0.00	0.20	0.20	0.09
Black-throated Blue Warbler	RS UCS	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.09
Yellow-rumped Warbler (Myrtle Warbler)		0.40	0.40	0.20	0.00	0.00	0.20	0.00	0.17
Black-throated Green Warbler	RS UCS	0.00	1.00	0.20	0.20	0.40	0.20	0.20	0.31
Blackburnian Warbler	RS UCS	0.20	0.60	0.60	0.60	0.60	0.80	0.40	0.54
Pine Warbler		0.00	0.00	0.00	0.00	0.20	0.20	0.40	0.11
Black-and-white Warbler	RS UCS	0.40	0.20	0.00	0.00	0.00	0.40	0.00	0.14
American Redstart	RS UCS	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.03
Ovenbird	UCS	2.60	4.40	2.60	2.40	2.00	2.20	2.40	2.66
Common Yellowthroat	UCS	0.20	0.40	0.60	0.40	0.20	0.40	0.20	0.34
Scarlet Tanager	RC	0.20	0.80	0.20	0.60	0.20	0.40	0.40	0.40
Chipping Sparrow		0.60	0.20	0.00	0.20	0.00	0.00	0.00	0.14
Dark-eyed Junco (Slate-colored Junco)		0.00	1.20	0.20	0.20	0.00	0.40	0.40	0.34
Rose-breasted Grosbeak		0.20	0.40	0.20	0.00	0.20	0.60	0.20	0.26
Indigo Bunting		0.00	0.60	0.40	0.00	0.20	0.00	0.00	0.17
Bobolink	CBSD RC UCC	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.06
Red-winged Blackbird		0.20	1.40	0.60	0.00	0.00	0.00	0.00	0.31
Brown-headed Cowbird		0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.03
Baltimore Oriole		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
American Goldfinch		0.00	0.00	0.20	0.00	0.00	0.00	0.20	0.06

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>		5	5	5	5	5	5	5	
		13.80	26.60	12.00	11.40	11.20	11.80	12.20	14.14
<i>Species Richness:</i>		27	32	27	18	21	27	24	48
<i>Shannon Diversity:</i>		2.96	3.11	2.90	2.61	2.51	2.95	2.84	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Canada Goose		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	
Red-tailed Hawk		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02	
Black-billed Cuckoo	CBSD UCC	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.02	
Yellow-billed Cuckoo	CBSD RC	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	
Red-bellied Woodpecker		0.00	0.29	0.29	0.57	0.00	0.43	1.14	0.39	
<i>Downy Woodpecker</i>		0.29	0.71	0.57	0.57	0.86	1.14	0.86	0.71	
Hairy Woodpecker		0.00	0.29	0.00	0.14	0.14	0.00	0.00	0.08	
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.14	0.00	0.29	0.00	0.14	0.08	
Eastern Wood-Pewee	RC	0.86	0.86	0.43	0.86	1.00	0.57	0.71	0.76	
Eastern Phoebe		0.14	0.00	0.14	0.00	0.14	0.00	0.00	0.06	
Great Crested Flycatcher		0.29	0.00	0.43	0.14	0.14	0.57	0.29	0.27	
Eastern Kingbird	RC	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	
Red-eyed Vireo		0.00	0.29	0.71	0.14	0.43	0.14	0.71	0.35	
<i>Blue Jay</i>		2.14	0.86	1.43	1.00	1.43	0.86	0.57	1.18	
<i>American Crow</i>		1.00	1.00	1.29	0.86	1.29	1.14	1.00	1.08	
Barn Swallow		0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.02	
<i>Black-capped Chickadee</i>		0.71	0.71	0.86	0.86	1.00	0.86	0.86	0.84	
<i>Tufted Titmouse</i>		0.71	1.86	2.57	2.14	1.29	1.86	1.71	1.73	
Red-breasted Nuthatch		0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.04	
<i>White-breasted Nuthatch</i>		0.43	0.57	0.43	0.57	1.57	0.43	1.29	0.76	
Carolina Wren		0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.04	
Veery	RC	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.02	
Hermit Thrush		0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
Wood Thrush	RC UCC	0.43	0.14	0.57	0.43	0.57	0.29	0.29	0.39	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>American Robin</i>		1.00	2.14	1.57	0.29	0.57	0.86	1.00	0.61
Gray Catbird	UCS	0.57	0.14	0.57	0.71	0.57	0.71	1.00	0.61
Northern Mockingbird		0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.02
Cedar Waxwing		0.00	0.14	0.00	0.71	0.00	0.00	0.29	0.16
Yellow Warbler		0.00	0.00	0.14	0.14	0.14	0.14	0.14	0.10
Pine Warbler		0.14	0.14	0.00	0.29	0.29	0.00	0.00	0.12
<i>Overbird</i>		0.71	0.86	0.43	1.00	0.57	0.57	0.71	0.69
Common Yellowthroat		0.14	0.29	0.57	0.71	0.57	0.00	0.43	0.39
Scarlet Tanager	RC	0.57	0.29	0.57	1.00	0.43	0.43	0.71	0.57
Chipping Sparrow		0.14	0.00	0.43	0.29	0.29	0.57	0.29	0.29
Song Sparrow		0.14	0.14	0.14	0.14	0.43	0.14	0.14	0.18
<i>Northern Cardinal</i>		1.29	0.57	1.00	0.71	0.29	1.29	0.29	0.78
Rose-breasted Grosbeak	RC	0.00	0.14	0.00	0.43	0.43	0.29	0.14	0.20
Indigo Bunting		0.14	0.00	0.29	0.00	0.43	0.00	0.00	0.12
Red-winged Blackbird		0.43	0.00	0.14	0.57	0.14	0.43	0.14	0.27
Common Grackle		0.43	0.14	0.14	0.71	0.29	0.29	0.00	0.29
Brown-headed Cowbird		0.29	0.43	0.29	0.43	0.00	0.57	0.14	0.31
Baltimore Oriole	RC	0.00	0.14	0.00	0.29	0.29	0.29	0.00	0.14
House Finch		0.00	0.00	0.00	0.29	0.14	0.14	0.00	0.08
American Goldfinch		1.00	0.29	0.29	0.14	0.71	1.00	1.29	0.67
House Sparrow		0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>		7	7	7	7	7	7	7	
		13.86	12.43	17.14	18.71	16.57	16.43	16.57	15.96
<i>Species Richness:</i>		26	26	28	32	31	31	28	46
<i>Shannon Diversity:</i>		2.96	2.95	2.97	3.21	3.17	3.17	3.07	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Canada Goose		0.00	0.13	0.00	0.00	0.13	0.00	0.00	0.04	
Great Blue Heron		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.04	
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.02	
Killdeer		0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
Mourning Dove		0.00	0.00	0.25	0.00	0.38	0.14	0.13	0.13	
Chimney Swift	CBSD RC	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.04	
Red-bellied Woodpecker		0.00	0.00	0.00	0.00	0.25	0.43	0.11		
Downy Woodpecker		0.50	0.88	0.38	1.00	0.13	0.43	0.55		
Hairy Woodpecker		0.13	0.25	0.00	0.00	0.25	0.00	0.10		
Northern Flicker (Yellow-shafted Flicker)		0.25	0.00	0.25	0.25	0.25	0.14	0.19		
Eastern Wood-Pewee	RC	0.13	0.00	0.00	0.13	0.13	0.00	0.06		
Alder Flycatcher		0.00	0.00	0.00	0.13	0.00	0.00	0.02		
Eastern Phoebe		0.00	0.00	0.00	0.13	0.00	0.14	0.04		
Great Crested Flycatcher		0.00	0.00	0.25	0.00	0.13	0.00	0.06		
Eastern Kingbird	RC	0.13	0.00	0.00	0.00	0.00	0.00	0.02		
Warbling Vireo		0.13	0.00	0.13	0.13	0.00	0.00	0.06		
Red-eyed Vireo		0.00	0.00	0.13	0.00	0.00	0.00	0.02		
<i>Blue Jay</i>		0.75	0.75	0.50	0.50	0.63	0.71	0.64		
<i>American Crow</i>		0.13	0.63	0.38	1.13	0.88	1.14	0.71		
Tree Swallow		0.00	0.00	0.00	0.00	0.00	0.14	0.02		
Barn Swallow		0.00	0.00	0.00	0.13	0.00	0.00	0.02		
<i>Black-capped Chickadee</i>		1.25	1.00	0.25	0.38	0.13	0.71	0.62		
<i>Tufted Titmouse</i>		1.00	0.88	0.50	1.00	1.13	0.86	0.89		
White-breasted Nuthatch		0.50	0.13	0.00	0.50	0.13	0.43	0.28		
Carolina Wren		0.25	0.13	0.00	0.13	0.00	0.14	0.11		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
House Wren		0.00	0.00	0.00	0.13							0.02
Blue-gray Gnatcatcher		0.00	0.00	0.00	0.13							0.02
Eastern Bluebird		0.00	0.00	0.00	0.13							0.02
Veery	RC	0.13	0.38	0.00	0.00							0.11
Wood Thrush	RC UCC	0.50	0.75	0.50	0.38							0.54
American Robin		0.38	1.00	0.00	0.25							0.36
Gray Catbird	UCS	0.38	0.88	0.25	1.13							0.68
Northern Mockingbird		0.00	0.25	0.00	0.13							0.09
Cedar Waxwing		0.13	0.00	0.00	0.13							0.04
Blue-winged Warbler	RC RS UCS	0.38	0.00	0.00	0.25							0.10
Yellow Warbler		0.13	0.00	0.25	0.13							0.08
Pine Warbler		0.25	0.50	0.25	0.63							0.32
American Redstart		0.00	0.13	0.00	0.13							0.04
<i>Ovenbird</i>		<i>0.50</i>	<i>0.75</i>	<i>0.50</i>	<i>0.50</i>							<i>0.57</i>
<i>Common Yellowthroat</i>		<i>1.00</i>	<i>1.00</i>	<i>0.25</i>	<i>0.63</i>							<i>0.71</i>
Scarlet Tanager	RC	0.25	0.00	0.13	0.38							0.13
Chipping Sparrow		0.00	0.00	0.00	0.00							0.02
<i>Song Sparrow</i>		<i>1.25</i>	<i>0.88</i>	<i>0.63</i>	<i>1.13</i>							<i>0.84</i>
Swamp Sparrow		0.00	0.00	0.13	0.13							0.04
<i>Northern Cardinal</i>		<i>0.38</i>	<i>0.63</i>	<i>0.50</i>	<i>0.75</i>							<i>0.58</i>
Rose-breasted Grosbeak	RC	0.50	0.38	0.38	0.50							0.38
Indigo Bunting		0.00	0.38	0.13	0.13							0.13
Red-winged Blackbird		0.88	0.13	0.50	0.63							0.55
Common Grackle		0.38	0.00	0.00	0.25							0.30
Brown-headed Cowbird		0.25	0.50	0.13	0.38							0.27

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Meriam's Corner

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Baltimore Oriole	RC	0.25	0.25	0.00	0.38	0.00	0.00	0.00	0.15
House Finch		0.25	0.00	0.13	0.00	0.00	0.00	0.14	0.09
American Goldfinch		0.38	0.63	0.25	0.38	0.00	0.00	0.14	0.29
House Sparrow		0.00	0.25	0.00	0.13	0.63	0.63	0.00	0.17
<i>Points Surveyed:</i>									
		8	8	8	8	8	8	7	
<i>Ave # Birds Per Point Count Station:</i>									
		13.75	14.63	7.88	15.63	11.13	11.86	11.86	12.48
<i>Species Richness:</i>									
		33	28	26	41	27	28	28	54
<i>Shannon Diversity:</i>									
		3.24	3.15	3.13	3.42	3.06	3.08	3.08	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA The Bluff

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>	
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2011</i>	<i>2012</i>	<i>2012</i>		
Wild Turkey		0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Red-tailed Hawk		0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Mourning Dove		0.25	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Belted Kingfisher	CBSD	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Red-bellied Woodpecker		0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.04
Downy Woodpecker		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.09
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.02
Eastern Wood-Pewee	RC	0.13	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.13	0.09
Eastern Phoebe		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Great Crested Flycatcher		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Warbling Vireo		0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Red-eyed Vireo		0.00	0.00	0.25	0.13	0.00	0.00	0.00	0.00	0.25	0.75	0.75	0.20
<i>Blue Jay</i>		<i>0.50</i>	<i>1.75</i>	<i>1.75</i>	<i>0.75</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.38</i>	<i>1.38</i>	<i>1.23</i>
<i>American Crow</i>		<i>0.50</i>	<i>0.63</i>	<i>0.88</i>	<i>0.63</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>2.13</i>	<i>1.00</i>	<i>1.00</i>	<i>0.98</i>
Fish Crow		0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.02
<i>Black-capped Chickadee</i>		<i>1.00</i>	<i>0.25</i>	<i>0.38</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.25</i>	<i>0.63</i>	<i>0.63</i>	<i>0.63</i>	<i>0.48</i>
<i>Tufted Titmouse</i>		<i>1.38</i>	<i>1.75</i>	<i>1.38</i>	<i>2.50</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>1.25</i>	<i>0.75</i>	<i>2.25</i>	<i>2.25</i>	<i>1.61</i>
<i>White-breasted Nuthatch</i>		<i>0.25</i>	<i>0.50</i>	<i>0.00</i>	<i>0.88</i>	<i>0.88</i>	<i>0.88</i>	<i>0.88</i>	<i>0.88</i>	<i>0.13</i>	<i>1.25</i>	<i>1.25</i>	<i>0.55</i>
Carolina Wren		0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
House Wren		0.13	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.07
Wood Thrush	RC UCC	0.00	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.04
<i>American Robin</i>		<i>0.13</i>	<i>0.75</i>	<i>1.38</i>	<i>1.63</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>1.25</i>	<i>1.25</i>	<i>2.75</i>	<i>2.75</i>	<i>1.29</i>
Gray Catbird	UCS	0.00	0.38	0.63	0.63	0.25	0.25	0.25	0.13	0.13	0.38	0.38	0.34
Northern Mockingbird		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.02
<i>Pine Warbler</i>		<i>0.25</i>	<i>0.25</i>	<i>0.88</i>	<i>1.25</i>	<i>1.00</i>	<i>1.00</i>	<i>1.00</i>	<i>0.38</i>	<i>0.38</i>	<i>0.25</i>	<i>0.25</i>	<i>0.61</i>

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA The Bluff

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>	
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2011</i>	<i>2012</i>	<i>2012</i>		
Ovenbird		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Common Yellowthroat		0.13	0.00	0.25	0.63	0.25	0.63	0.25	0.63	0.25	0.13	0.00	0.20
Scarlet Tanager	RC	0.00	0.00	0.00	0.63	0.00	0.63	0.00	0.63	0.00	0.00	0.25	0.13
Chipping Sparrow		0.00	0.00	0.13	0.13	0.00	0.13	0.00	0.13	0.00	0.00	0.13	0.05
<i>Song Sparrow</i>		<i>0.38</i>	<i>0.75</i>	<i>0.63</i>	<i>0.13</i>	<i>0.50</i>	<i>0.13</i>	<i>0.50</i>	<i>0.63</i>	<i>0.13</i>	<i>0.63</i>	<i>0.38</i>	<i>0.48</i>
<i>Northern Cardinal</i>		<i>0.88</i>	<i>1.00</i>	<i>0.63</i>	<i>0.25</i>	<i>0.13</i>	<i>0.25</i>	<i>0.13</i>	<i>0.13</i>	<i>0.13</i>	<i>0.13</i>	<i>1.00</i>	<i>0.57</i>
Rose-breasted Grosbeak	RC	0.00	0.00	0.00	0.25	0.13	0.25	0.13	0.25	0.13	0.00	0.00	0.05
<i>Red-winged Blackbird</i>		<i>0.38</i>	<i>1.13</i>	<i>0.75</i>	<i>0.75</i>	<i>0.25</i>	<i>0.75</i>	<i>0.25</i>	<i>1.13</i>	<i>1.13</i>	<i>1.13</i>	<i>1.00</i>	<i>0.77</i>
Common Grackle		0.25	0.25	0.13	0.63	0.13	0.63	0.13	0.63	0.13	0.63	0.25	0.32
Brown-headed Cowbird		0.00	0.50	0.00	0.13	0.00	0.13	0.00	0.13	0.00	0.13	0.00	0.11
Baltimore Oriole	RC	0.13	0.00	0.00	0.13	0.00	0.13	0.00	0.13	0.00	0.13	0.13	0.07
House Finch		0.13	0.25	0.00	0.00	0.13	0.00	0.13	0.00	0.13	0.00	0.00	0.07
American Goldfinch		0.63	0.50	0.13	0.13	1.00	0.13	1.00	0.13	1.00	0.13	0.13	0.38
House Sparrow		0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
<i>Points Surveyed:</i>		8	8	8	8	8	8	8	8	8	8	8	
<i>Ave # Birds Per Point Count Station:</i>		7.75	11.13	10.38	13.38	11.13	10.00	11.13	10.00	15.00	10.00	15.00	11.25
<i>Species Richness:</i>		20	18	17	25	22	18	23	18	23	18	23	39
<i>Shannon Diversity:</i>		2.69	2.62	2.52	2.80	2.76	2.46	2.76	2.46	2.67	2.46	2.67	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Battle Road

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Wild Turkey								0.17	0.17
Red-tailed Hawk								0.17	0.17
Chimney Swift								0.17	0.17
Downy Woodpecker								0.33	0.33
Eastern Phoebe								0.17	0.17
Great Crested Flycatcher								0.17	0.17
Blue Jay								0.17	0.17
American Crow								0.50	0.50
Tree Swallow								0.17	0.17
White-breasted Nuthatch								0.33	0.33
House Wren								0.17	0.17
Eastern Bluebird								0.33	0.33
Gray Catbird								0.33	0.33
Northern Mockingbird								0.50	0.50
European Starling								0.17	0.17
Yellow Warbler								0.17	0.17
Chipping Sparrow								0.33	0.33
Song Sparrow								0.33	0.33
Northern Cardinal								0.17	0.17
American Goldfinch								0.50	0.50
House Sparrow								0.50	0.50

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Battle Road

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>								6	5.83
<i>Species Richness:</i>								21	21
<i>Shannon Diversity:</i>								2.94	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Mt. Kemble

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Red-tailed Hawk		0.20	0.10	0.30	0.10	0.10	0.10	0.10	0.18
Mourning Dove		0.30	0.00	0.20	0.20	0.10	0.10	0.10	0.15
Yellow-billed Cuckoo	CBSD	0.10	0.50	0.00	0.00	0.00	0.00	0.00	0.15
Great Horned Owl		0.20	0.30	0.10	0.10	0.00	0.00	0.00	0.15
Red-bellied Woodpecker		0.60	0.20	0.90	0.10	0.10	0.10	0.10	0.45
Downy Woodpecker	RS UCS	0.60	0.50	0.20	0.20	0.20	0.20	0.20	0.38
<i>Hairy Woodpecker</i>		0.50	0.40	0.90	0.20	0.20	0.20	0.20	0.50
Northern Flicker (Yellow-shafted Flicker)		0.40	0.40	0.50	0.10	0.10	0.10	0.10	0.35
Pileated Woodpecker	UCS	0.20	0.20	0.10	0.10	0.30	0.30	0.30	0.20
Eastern Wood-Pewee	RC	1.10	0.80	1.40	1.40	0.80	0.80	0.80	1.03
Eastern Phoebe	UCS	0.10	0.00	0.10	0.10	0.00	0.00	0.00	0.05
Great Crested Flycatcher		0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.10
Blue-headed Vireo		0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.03
Red-eyed Vireo	UCS	0.20	0.30	0.30	0.30	0.50	0.50	0.50	0.33
<i>Blue Jay</i>		1.30	1.10	2.20	1.50	1.50	1.50	1.50	1.53
<i>American Crow</i>		0.70	0.60	0.60	0.40	0.40	0.40	0.40	0.58
Black-capped Chickadee		0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.05
Tufted Titmouse	UCS	1.00	1.40	1.30	1.30	0.50	0.50	0.50	1.05
White-breasted Nuthatch	UCS	0.80	0.70	0.60	0.60	0.20	0.20	0.20	0.58
House Wren		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Blue-gray Gnatcatcher		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.05
Eastern Bluebird	UCS	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Veery		0.40	0.00	0.30	0.20	0.20	0.20	0.20	0.23
Wood Thrush	RC RS UCC UCS	1.50	1.60	1.70	1.70	0.70	0.70	0.70	1.38
<i>American Robin</i>		0.90	1.10	1.20	1.20	0.70	0.70	0.70	0.98

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Mt. Kemble

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Gray Catbird	UCS	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
American Redstart		0.00	0.20	0.00	0.10	0.00	0.10	0.10	0.08
Worm-eating Warbler	RC RS UCS	0.40	0.10	0.00	0.00	0.00	0.00	0.13	0.13
Ovenbird		0.60	0.10	1.30	0.60	0.60	0.60	0.65	0.65
Louisiana Waterthrush	RC RS UCS	0.00	0.00	0.00	0.00	0.20	0.20	0.05	0.05
Scarlet Tanager	RS UCS	0.50	1.00	0.80	1.10	1.10	1.10	0.85	0.85
Eastern Towhee	RC RS UCS	0.00	0.20	0.20	0.20	0.30	0.30	0.18	0.18
Chipping Sparrow		0.00	0.00	0.20	0.20	0.10	0.10	0.08	0.08
Song Sparrow	UCS	0.00	0.00	0.00	0.00	0.10	0.10	0.03	0.03
Northern Cardinal		0.10	0.40	0.10	0.20	0.20	0.20	0.20	0.20
Rose-breasted Grosbeak		0.10	0.00	0.20	0.00	0.00	0.00	0.08	0.08
Indigo Bunting	UCS	0.20	0.00	0.10	0.00	0.10	0.00	0.08	0.08
Brown-headed Cowbird		0.00	0.10	0.00	0.10	0.00	0.10	0.05	0.05
American Goldfinch	RS UCS	0.00	0.00	0.00	0.00	0.00	0.10	0.03	0.03
<i>Points Surveyed:</i>		10	10	10	10	10	10	10	
<i>Ave # Birds Per Point Count Station:</i>		13.70	12.80	16.00	9.70	13.05			
<i>Species Richness:</i>		30	26	27	28	39			
<i>Shannon Diversity:</i>		3.09	2.93	2.87	2.94				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Primrose Brook

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Wild Turkey		0.00	0.20	0.00	0.00	0.20	0.00	0.00	0.00	0.07
Red-tailed Hawk		0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.05
Mourning Dove		0.10	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.05
Yellow-billed Cuckoo	CBSD	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.07
<i>Red-bellied Woodpecker</i>		0.60	0.40	1.20	1.20	0.30	0.70	0.70	0.70	0.73
Downy Woodpecker	RS UCS	0.20	0.10	0.00	0.20	0.10	0.00	0.00	0.00	0.10
Northern Flicker (Yellow-shafted Flicker)		0.20	0.70	0.10	0.10	0.20	0.20	0.20	0.20	0.25
Pileated Woodpecker	UCS	0.00	0.10	0.00	0.20	0.20	0.20	0.20	0.20	0.12
Eastern Wood-Pewee	RC	0.80	0.80	0.20	0.10	0.40	0.60	0.60	0.60	0.48
Eastern Phoebe	UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Great Crested Flycatcher		0.00	0.00	0.20	0.00	0.00	0.20	0.20	0.20	0.07
Yellow-throated Vireo	RC RS UCS	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Red-eyed Vireo	UCS	1.40	1.10	0.50	0.60	0.20	0.20	0.20	0.20	0.67
Blue Jay		0.60	1.70	0.90	0.60	1.10	0.80	0.80	0.80	0.95
American Crow		0.10	0.90	0.10	0.10	0.20	0.00	0.00	0.00	0.23
Black-capped Chickadee		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Tufted Titmouse	UCS	0.60	0.50	0.80	1.40	0.50	0.40	0.40	0.40	0.70
White-breasted Nuthatch	UCS	0.20	0.50	0.40	0.10	0.20	0.20	0.20	0.20	0.27
Carolina Wren		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Eastern Bluebird	UCS	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.02
Veery		0.40	0.70	0.60	1.00	0.50	0.20	0.20	0.20	0.57
Swainson's Thrush		0.10	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.03
Wood Thrush	RC RS UCC UCS	1.30	1.90	0.90	0.90	1.50	0.70	0.70	0.70	1.20
American Robin		0.90	1.30	1.00	1.00	0.60	0.30	0.30	0.30	0.85
Gray Catbird	UCS	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.10	0.07

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Primrose Brook

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
Worm-eating Warbler	RC RS UCS	0.00	0.40	0.00	0.00	0.00	0.00	0.10	0.08	0.10	0.08	
<i>Overbird</i>		<i>0.90</i>	<i>1.10</i>	<i>0.40</i>	<i>0.70</i>	<i>0.60</i>	<i>0.80</i>	<i>0.75</i>				
Louisiana Waterthrush	RC RS UCS	0.00	0.10	0.00	0.00	0.00	0.00	0.02	0.02	0.00	0.02	
Hooded Warbler	RS UCS	0.10	0.20	0.00	0.00	0.00	0.40	0.12	0.12	0.40	0.12	
Scarlet Tanager	RS UCS	0.60	1.20	0.50	0.30	0.40	0.10	0.52	0.52	0.10	0.52	
Eastern Towhee	RC RS UCS	0.40	0.50	0.10	0.40	0.40	0.60	0.40	0.40	0.60	0.40	
Northern Cardinal		0.30	0.90	0.10	0.40	0.20	0.00	0.32		0.00	0.32	
Rose-breasted Grosbeak		0.10	0.10	0.10	0.10	0.00	0.10	0.08		0.10	0.08	
Common Grackle		0.00	0.00	0.00	0.00	0.00	0.10	0.02		0.10	0.02	
Brown-headed Cowbird		0.00	0.10	0.00	0.00	0.00	0.00	0.02		0.00	0.02	
Baltimore Oriole		0.60	0.10	0.60	0.20	0.00	0.20	0.28		0.20	0.28	
Points Surveyed:		10	10	10	10	10	10	10		10		
Ave # Birds Per Point Count Station:		10.70	16.60	9.00	9.90	7.90	7.30	10.23		7.30	10.23	
Species Richness:		23	30	21	22	19	22	36		22	36	
Shannon Diversity:		2.82	3.01	2.72	2.71	2.67	2.84			2.84		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Turkey Vulture		0.11	0.00				0.00	0.00	0.02
Red-tailed Hawk		0.00	0.00				0.22	0.00	0.07
Mourning Dove		0.00	0.00				0.67	0.00	0.27
Yellow-billed Cuckoo	CBSD	0.00	0.00				0.33	0.00	0.07
Eastern Screech-Owl		0.00	0.00				0.00	0.00	0.02
Great Horned Owl		0.00	0.00				0.22	0.33	0.20
Barr'd Owl		0.00	0.00				0.00	0.22	0.04
Red-bellied Woodpecker		0.44	0.11				0.89	0.44	0.44
Downy Woodpecker	RS UCS	0.00	0.11				0.56	0.22	0.27
Hairy Woodpecker		0.00	0.00				0.11	0.22	0.22
Northern Flicker (Yellow-shafted Flicker)		0.22	0.33				0.67	0.33	0.42
Pileated Woodpecker	UCS	0.22	0.11				0.44	0.33	0.33
Eastern Wood-Pewee	RC	0.67	1.00				1.00	1.00	0.84
Acadian Flycatcher	RC RS UCS	0.00	0.00				0.11	0.00	0.02
Eastern Phoebe	UCS	0.00	0.00				0.11	0.00	0.04
Great Crested Flycatcher		0.11	0.11				0.11	0.33	0.13
Yellow-throated Vireo	RC RS UCS	0.00	0.22				0.00	0.11	0.09
Red-eyed Vireo	UCS	0.89	0.89				1.00	0.89	0.89
Blue Jay		0.22	0.33				0.78	1.22	0.80
American Crow		0.00	0.11				0.67	0.11	0.29
Fish Crow		0.00	0.00				0.11	0.00	0.02
Black-capped Chickadee		0.11	0.00				0.11	0.00	0.04
Tufted Titmouse	UCS	0.56	0.44				1.00	0.22	0.67
White-breasted Nuthatch	UCS	0.11	0.00				0.67	0.44	0.42
Blue-gray Gnatcatcher		0.00	0.00				0.44	0.11	0.18

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

Common Name	PIF Codes	Relative Abundance (birds per point count station)							Mean
		2006	2007	2008	2009	2010	2011	2012	
Veery		0.44	0.78		1.89	1.56	1.78	1.29	
Wood Thrush	RC RS UCC UCS	1.11	1.22		2.11	2.11	1.89	1.69	
American Robin		0.67	0.78		1.33	0.67	0.89	0.87	
Gray Catbird	UCS	0.11	0.22		0.33	0.56	1.33	0.51	
Cedar Waxwing	UCS	0.11	0.00		0.00	0.00	0.00	0.02	
Blackpoll Warbler		0.56	0.00		0.00	0.00	0.00	0.11	
Cerulean Warbler	RC RS UCC UCS	0.00	0.00		0.11	0.00	0.00	0.02	
Black-and-white Warbler	RC	0.11	0.00		0.00	0.00	0.00	0.02	
American Redstart		0.44	0.67		0.67	0.44	0.89	0.62	
Worm-eating Warbler	RC RS UCS	0.00	0.00		0.00	0.00	0.11	0.02	
Ovenbird		0.78	1.11		2.33	0.89	1.89	1.40	
Louisiana Waterthrush	RC RS UCS	0.33	0.11		0.00	0.22	0.00	0.13	
Kentucky Warbler	RC UCC	0.00	0.11		0.00	0.00	0.00	0.02	
Common Yellowthroat	UCS	0.00	0.00		0.00	0.11	0.00	0.02	
Hooded Warbler	RS UCS	0.22	0.22		0.44	0.33	0.89	0.42	
Canada Warbler	UCC	0.11	0.00		0.00	0.00	0.00	0.02	
Scarlet Tanager	RS UCS	0.56	0.33		1.00	1.22	1.00	0.82	
Eastern Towhee	RC RS UCS	0.56	0.67		1.44	0.56	1.00	0.84	
Chipping Sparrow		0.00	0.11		0.00	0.00	0.00	0.02	
Northern Cardinal		0.00	0.00		0.11	0.22	0.11	0.09	
Rose-breasted Grosbeak		0.00	0.33		0.11	0.11	0.67	0.24	
Brown-headed Cowbird		0.22	0.22		0.22	0.22	0.00	0.18	
Baltimore Oriole		0.33	0.11		0.11	0.00	0.11	0.13	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCC = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>		9	9	9	9	9	9	9	16.36
<i>Species Richness:</i>		10.33	10.78	22.44	22.44	15.78	22.44	22.44	16.36
<i>Shannon Diversity:</i>		27	26	35	35	30	31	31	48
		3.06	2.94	3.18	3.18	3.07	3.17	3.17	3.17

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Middle Ravine

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Canada Goose		0.00	0.10						0.05
<i>Mourning Dove</i>		0.80	0.60						0.70
Yellow-bellied Sapsucker		0.10	0.30						0.20
Downy Woodpecker		0.20	0.50						0.35
Northern Flicker (Yellow-shafted Flicker)		0.20	0.00						0.10
Eastern Wood-Pewee	RC	0.50	0.80						0.65
Eastern Phoebe		0.10	0.00						0.05
Great Crested Flycatcher		0.50	0.50						0.50
<i>Red-eyed Vireo</i>		0.60	0.70						0.65
<i>Blue Jay</i>		0.50	0.60						0.55
American Crow		0.60	0.40						0.50
<i>Black-capped Chickadee</i>		1.00	0.70						0.85
Tufted Titmouse		0.30	0.40						0.35
Red-breasted Nuthatch		0.00	0.10						0.05
White-breasted Nuthatch		0.20	0.10						0.15
Brown Creeper		0.10	0.30						0.20
Winter Wren		0.10	0.00						0.05
Veery	RC	0.20	0.30						0.25
Hermit Thrush		0.20	0.40						0.30
Wood Thrush	RC UCC	0.80	0.30						0.55
<i>American Robin</i>		1.40	0.50						0.95
Cedar Waxwing	UCS	0.40	0.00						0.20
Blue-winged Warbler	RC RS UCS	0.00	0.10						0.05
Golden-winged Warbler	RC UCC	0.10	0.00						0.05
Chestnut-sided Warbler		0.10	0.00						0.05

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Middle Ravine

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.20						0.10
American Redstart		0.10	0.00						0.05
Ovenbird		1.90	1.30						1.60
Common Yellowthroat		0.80	0.80						0.80
Scarlet Tanager		0.40	0.40						0.40
Eastern Towhee	RC	0.60	0.50						0.55
Chipping Sparrow		0.30	0.00						0.15
Field Sparrow	CBSD RC	0.20	0.20						0.20
Song Sparrow	UCS	0.40	0.30						0.35
Northern Cardinal		0.10	0.40						0.25
Rose-breasted Grosbeak		0.10	0.20						0.15
Red-winged Blackbird		0.20	0.40						0.30
Brown-headed Cowbird		0.10	0.20						0.15
Baltimore Oriole	RC RS UCS	0.10	0.00						0.05
American Goldfinch	UCS	1.20	1.20						1.20
<i>Points Surveyed:</i>									
		10	10						
<i>Ave # Birds Per Point Count Station:</i>									
		15.50	13.80						14.65
<i>Species Richness:</i>									
		36	31						40
<i>Shannon Diversity:</i>									
		3.20	3.24						

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Canada Goose			0.10	0.00	0.00	0.00	0.00	0.00	0.03
Mourning Dove			0.10	0.00	0.00	0.30			0.13
Black-billed Cuckoo	CBSD RC RS UCC UCS		0.10	0.00	0.00	0.00			0.03
Yellow-billed Cuckoo	CBSD		0.10	0.00	0.00	0.20			0.03
Red-bellied Woodpecker			0.00	0.10	0.20				0.10
<i>Yellow-bellied Sapsucker</i>			<i>0.20</i>	<i>0.60</i>	<i>1.60</i>				<i>0.80</i>
Downy Woodpecker			0.30	0.00	0.50				0.27
Hairy Woodpecker			0.00	0.00	0.10				0.03
Northern Flicker (Yellow-shafted Flicker)			0.00	0.10	0.00				0.03
Pileated Woodpecker			0.10	0.10	0.20				0.13
Eastern Wood-Pewee	RC		1.20	1.20	0.90				1.10
Acadian Flycatcher			0.10	0.00	0.00				0.03
Least Flycatcher	RC		0.20	0.00	0.00				0.07
Eastern Phoebe			0.30	0.00	0.10				0.13
<i>Great Crested Flycatcher</i>			<i>0.90</i>	<i>0.60</i>	<i>0.40</i>				<i>0.63</i>
Yellow-throated Vireo			0.00	0.00	0.10				0.03
<i>Red-eyed Vireo</i>			<i>1.20</i>	<i>0.50</i>	<i>1.10</i>				<i>0.93</i>
Blue Jay			0.30	0.30	0.40				0.33
American Crow			0.50	0.40	0.60				0.50
<i>Black-capped Chickadee</i>			<i>1.20</i>	<i>0.80</i>	<i>0.70</i>				<i>0.90</i>
Tufted Titmouse			0.40	0.10	0.20				0.23
Red-breasted Nuthatch			0.10	0.00	0.10				0.07
White-breasted Nuthatch			0.10	0.20	0.40				0.23
Brown Creeper			0.40	0.30	0.40				0.37
House Wren			0.00	0.00	0.10				0.03

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Blue-gray Gnatcatcher		0.10	0.00	0.00	0.00	0.00			0.03
Veery	RC	0.20	0.60	1.20					0.67
Hermit Thrush		0.00	0.70	0.30					0.33
Wood Thrush	RC UCC	0.60	0.00	0.40					0.33
American Robin		0.60	0.20	0.20					0.33
Gray Catbird		0.40	0.20	0.30					0.30
Cedar Waxwing	UCS	0.00	0.70	0.20					0.30
Blue-winged Warbler	RC RS UCS	0.00	0.00	0.10					0.03
Yellow Warbler		0.00	0.00	0.40					0.13
Chestnut-sided Warbler		0.40	0.10	0.10					0.20
<i>Ovenbird</i>		1.70	0.90	1.40					1.33
Northern Waterthrush		0.10	0.00	0.00					0.03
Louisiana Waterthrush		0.20	0.00	0.00					0.07
<i>Common Yellowthroat</i>		0.90	0.50	0.70					0.70
<i>Scarlet Tanager</i>		0.60	0.40	0.80					0.60
Eastern Towhee	RC	0.10	0.10	0.40					0.20
Chipping Sparrow		0.20	0.10	0.20					0.17
Song Sparrow	UCS	0.10	0.00	0.30					0.13
Northern Cardinal		0.10	0.40	0.40					0.30
Rose-breasted Grosbeak		0.20	0.00	0.00					0.07
Indigo Bunting		0.20	0.00	0.00					0.07
Red-winged Blackbird		0.00	0.00	0.10					0.03
Common Grackle		0.00	0.00	0.20					0.07
Baltimore Oriole	RC RS UCS	0.00	0.00	0.20					0.07
American Goldfinch	UCS	0.60	0.40	0.70					0.57

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
<i>Relative Abundance (birds per point count station)</i>									
<i>Ave # Birds Per Point Count Station:</i>				10	10	10	10		14.27
<i>Species Richness:</i>			15.20	38	26	39			50
<i>Shannon Diversity:</i>			3.25	3.01	3.36				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Bemis Heights

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>							<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	
Mourning Dove			0.33	1.00	0.17	0.50	0.50	0.50	
Ruby-throated Hummingbird			0.00	0.17	0.00	0.00	0.00	0.04	
Red-bellied Woodpecker			0.00	0.17	0.17	0.00	0.00	0.08	
Yellow-bellied Sapsucker			0.17	0.50	0.67	0.00	0.00	0.33	
Downy Woodpecker			0.00	0.33	0.00	1.00	0.00	0.33	
Pileated Woodpecker			0.17	0.33	0.33	0.00	0.00	0.21	
Eastern Wood-Pewee	RC		0.50	0.67	0.50	0.00	0.00	0.42	
Alder Flycatcher			0.17	0.00	0.00	0.00	0.00	0.04	
Eastern Phoebe			0.17	0.00	0.00	0.00	0.00	0.04	
Great Crested Flycatcher			0.00	0.17	0.17	0.00	0.00	0.08	
Red-eyed Vireo			0.83	0.17	0.50	0.00	0.00	0.38	
Blue Jay			0.83	1.00	0.67	0.50	0.50	0.75	
American Crow			0.17	0.17	0.50	1.00	1.00	0.46	
Black-capped Chickadee			0.83	0.33	0.33	0.50	0.50	0.50	
Tufted Titmouse			1.17	0.00	0.00	0.00	0.00	0.29	
White-breasted Nuthatch			0.17	0.33	1.00	0.00	0.00	0.38	
Blue-gray Gnatcatcher			0.33	0.00	0.00	0.00	0.00	0.08	
Veery	RC		0.67	0.83	0.33	0.50	0.50	0.58	
Hermit Thrush			0.00	0.17	0.33	0.00	0.00	0.13	
Wood Thrush	RC UCC		1.83	1.17	1.67	0.50	0.50	1.29	
American Robin			0.67	0.83	1.00	1.50	1.50	1.00	
Gray Catbird			0.00	0.17	0.33	1.00	1.00	0.38	
Cedar Waxwing	UCS		0.33	0.00	0.00	0.00	0.00	0.08	
Blue-winged Warbler	RC RS UCS		0.17	0.00	0.00	0.00	0.00	0.04	
Yellow Warbler			0.00	0.00	0.17	0.00	0.00	0.04	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Bemis Heights

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Chestnut-sided Warbler			0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Black-and-white Warbler			0.33	0.00	0.00	0.17	0.00	0.00	0.00	0.13
Ovenbird			1.33	1.33	1.67	1.67	0.00	0.00	0.00	1.08
Louisiana Waterthrush			0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Common Yellowthroat			1.33	0.33	0.00	0.00	0.50	0.50	0.50	0.54
Scarlet Tanager			0.83	0.50	0.17	0.00	0.00	0.00	0.00	0.38
Eastern Towhee	RC		0.33	0.17	0.33	0.33	1.00	1.00	1.00	0.46
Chipping Sparrow			0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Field Sparrow	CBSD RC		0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.13
Northern Cardinal			0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.04
Rose-breasted Grosbeak			0.00	0.33	0.00	0.00	0.50	0.50	0.50	0.21
Red-winged Blackbird			0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.25
Brown-headed Cowbird			0.17	0.33	0.67	0.67	0.00	0.00	0.00	0.29
Baltimore Oriole	RC RS UCS		0.00	0.17	0.17	0.17	0.00	0.00	0.00	0.08
American Goldfinch	UCS		0.67	0.17	0.17	0.00	0.00	0.00	0.00	0.21
		<i>Points Surveyed:</i>	6	6	6	6	6	2		
		<i>Ave # Birds Per Point Count Station:</i>	15.00	12.00	12.00	12.00	10.50			12.38
		<i>Species Richness:</i>	28	27	23	14				40
		<i>Shannon Diversity:</i>	3.03	3.03	2.85	2.56				

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species; UCS = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Canada Goose		0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.07
Wild Turkey		0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03
Turkey Vulture		0.00	0.00	0.20	0.00	0.00	0.20	0.00	0.07
Red-tailed Hawk		0.00	0.00	0.00	0.20	0.00	0.00	0.40	0.10
American Kestrel		0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.10
Mourning Dove		0.60	0.60	0.00	0.00	0.80	0.40	0.40	0.47
Black-billed Cuckoo		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.03
Red-bellied Woodpecker		1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.20
Yellow-bellied Sapsucker		0.40	0.20	0.40	0.20	0.20	0.20	0.00	0.23
Downy Woodpecker		0.00	0.20	0.00	0.00	0.00	0.00	0.20	0.07
Hairy Woodpecker		0.00	0.00	0.00	0.00	0.60	0.20	0.00	0.13
Northern Flicker (Yellow-shafted Flicker)		0.60	0.00	0.00	0.00	0.80	0.40	1.00	0.47
Pileated Woodpecker		0.20	0.00	0.00	0.00	0.00	0.00	0.20	0.07
Eastern Wood-Pewee		0.40	0.40	0.00	0.00	0.80	0.00	0.20	0.30
Alder Flycatcher		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.03
Least Flycatcher		0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.07
Eastern Phoebe		0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.07
Great Crested Flycatcher		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
<i>Eastern Kingbird</i>		0.60	0.60	0.40	0.40	1.60	0.80	1.00	0.83
Warbling Vireo		0.20	0.20	0.00	0.00	0.00	0.40	0.00	0.13
Red-eyed Vireo		0.00	0.00	0.00	0.40	0.00	0.20	0.20	0.13
Blue Jay		0.40	0.20	0.20	0.00	0.20	0.20	0.00	0.17
American Crow		0.20	0.20	0.20	0.20	0.00	1.00	0.00	0.27
Common Raven		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
<i>Tree Swallow</i>		0.60	1.00	0.40	0.40	1.60	2.00	1.60	1.20

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Northern Rough-winged Swallow		0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.10
Black-capped Chickadee		1.00	0.00	0.00	0.00	0.20	0.00	0.00	0.20
Tufted Titmouse		0.60	0.00	0.00	0.00	0.20	0.00	0.00	0.13
White-breasted Nuthatch		0.40	0.00	0.00	0.00	0.00	0.00	0.20	0.10
House Wren		0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.07
Blue-gray Gnatcatcher		0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.03
<i>Eastern Bluebird</i>		0.60	0.00	0.00	0.00	2.00	1.00	2.00	0.93
Veery		0.20	0.00	0.00	0.00	0.20	0.00	0.00	0.07
Wood Thrush		0.80	0.00	0.00	0.20	0.00	0.20	0.60	0.30
American Robin		0.80	0.80	0.20	0.40	0.40	0.40	0.00	0.47
Gray Catbird		0.60	0.20	0.20	0.20	0.20	0.40	0.00	0.27
Brown Thrasher		0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03
<i>Cedar Waxwing</i>		0.60	0.60	0.20	0.20	0.00	1.00	1.40	0.63
Blue-winged Warbler		0.00	0.60	0.60	0.40	0.00	0.00	0.00	0.17
Yellow Warbler		0.00	0.20	0.20	0.60	0.20	0.80	0.00	0.30
Chestnut-sided Warbler		0.00	0.00	0.00	0.00	0.40	0.00	0.20	0.10
Prairie Warbler		0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17
Black-and-white Warbler		0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.03
American Redstart		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Ovenbird		0.20	0.00	0.00	0.00	0.40	0.20	0.20	0.17
<i>Common Yellowthroat</i>		0.60	1.00	1.00	1.20	1.60	1.80	2.60	1.47
Scarlet Tanager		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.03
Eastern Towhee		0.00	0.00	0.00	0.00	0.00	1.00	0.40	0.23
<i>Chipping Sparrow</i>		1.20	0.80	0.80	0.80	0.20	0.40	1.20	0.77
<i>Field Sparrow</i>		1.40	2.00	1.80	1.80	2.80	2.40	3.20	2.27

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>	
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>					
Vesper Sparrow		0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Savannah Sparrow		0.00		0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Song Sparrow		1.40		1.00	0.20	0.60	0.80	0.80	0.40	0.73			0.73
Northern Cardinal		0.20		0.00	0.00	0.00	0.60	0.60	0.00	0.13			0.13
Rose-breasted Grosbeak		0.20		0.20	0.20	0.00	0.00	0.00	0.00	0.10			0.10
Indigo Bunting		0.00		0.20	0.00	0.00	0.00	0.00	0.00	0.03			0.03
Red-winged Blackbird		2.80		2.40	1.20	2.40	3.20	7.60	3.27				3.27
Eastern Meadowlark		0.20		0.40	0.60	0.00	0.20	0.00	0.23				0.23
Common Grackle		0.40		0.00	0.00	0.00	0.20	0.00	0.10				0.10
Brown-headed Cowbird		0.00		0.00	0.00	0.00	0.20	0.00	0.03				0.03
Orchard Oriole		0.60		0.00	0.20	0.00	0.00	0.00	0.13				0.13
Baltimore Oriole		0.20		0.40	0.40	1.20	0.60	0.00	0.47				0.47
American Goldfinch		1.40		1.80	0.60	0.80	1.20	1.60	1.23				1.23
<i>Points Surveyed:</i>		5	5	5	5	5	5	5	5	5	5	5	
<i>Ave # Birds Per Point Count Station:</i>		22.60	18.20	11.60	21.00	23.40	29.20	21.00					21.00
<i>Species Richness:</i>		37	31	24	26	32	27	63					63
<i>Shannon Diversity:</i>		3.34	3.09	2.92	2.89	3.10	2.69						

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Canada Goose		0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.10	0.06
Great Blue Heron		0.30	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Turkey Vulture		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.01
Cooper's Hawk		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
Red-tailed Hawk		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
American Kestrel		0.30	0.00	0.00	0.10	0.10	0.20	0.20	0.30	0.14
American Woodcock		0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.03
Mourning Dove		0.30	0.40	0.50	0.30	0.90	0.80	0.80	0.90	0.59
Black-billed Cuckoo		0.40	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.07
Yellow-billed Cuckoo		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Ruby-throated Hummingbird		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Red-bellied Woodpecker		0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.04
Yellow-bellied Sapsucker		0.00	0.00	0.00	0.10	0.20	0.10	0.20	0.00	0.06
Downy Woodpecker		0.00	0.00	0.10	0.00	0.00	0.00	0.20	0.00	0.04
Hairy Woodpecker		0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.01
Northern Flicker (Yellow-shafted Flicker)		0.20	0.10	0.20	0.00	0.30	0.20	0.20	0.30	0.19
Pileated Woodpecker		0.00	0.00	0.00	0.30	0.10	0.00	0.00	0.20	0.09
Eastern Wood-Pewee		0.20	0.20	0.30	0.00	0.40	0.30	0.30	0.50	0.27
Alder Flycatcher		0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Willow Flycatcher		0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.03
Eastern Phoebe		0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01
Great Crested Flycatcher		0.40	0.60	0.40	0.10	0.10	0.10	0.10	0.00	0.24
Eastern Kingbird		0.30	0.20	0.30	0.70	0.80	1.00	1.00	0.50	0.54
Yellow-throated Vireo		0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.03
Warbling Vireo		0.10	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.03

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Red-eyed Vireo		0.40	0.40	0.10	0.00	0.20	0.00	0.10	0.17
Blue Jay		0.40	0.30	0.20	0.50	0.30	0.50	0.20	0.34
American Crow		1.60	0.90	0.90	1.50	1.20	0.70	1.80	1.23
Common Raven		0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.03
Tree Swallow		0.40	0.80	0.30	0.00	1.00	0.80	0.10	0.49
Black-capped Chickadee		0.40	0.40	0.00	0.90	0.40	0.20	0.60	0.41
Tufted Titmouse		0.70	0.30	0.10	0.00	0.10	0.10	0.00	0.19
White-breasted Nuthatch		0.10	0.10	0.00	0.30	0.00	0.00	0.00	0.07
House Wren		0.30	0.00	0.10	0.20	0.20	0.00	0.00	0.11
Eastern Bluebird		0.30	0.00	0.10	0.00	0.00	0.20	0.30	0.13
Hermit Thrush		0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01
Wood Thrush		0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.03
American Robin		0.00	0.40	0.70	0.50	0.80	1.80	0.80	0.71
Gray Catbird		0.00	0.10	0.20	0.00	0.70	0.10	0.00	0.16
Northern Mockingbird		0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.01
European Starling		0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Cedar Waxwing		0.10	0.80	0.00	0.00	0.20	0.50	0.70	0.33
Blue-winged Warbler		0.40	0.40	0.10	0.10	0.30	0.20	0.00	0.21
Golden-winged Warbler		0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.01
Yellow Warbler		0.40	0.20	0.30	0.10	0.20	0.00	0.00	0.17
Chestnut-sided Warbler		0.20	0.10	0.50	0.00	0.00	0.00	0.00	0.11
Prairie Warbler		0.00	0.30	0.30	0.00	0.90	0.00	0.20	0.24
Ovenbird		0.50	0.40	0.40	0.10	0.00	0.00	0.40	0.26
Common Yellowthroat		1.10	0.80	0.80	1.60	3.10	1.90	2.60	1.70
Scarlet Tanager		0.20	0.00	0.00	0.00	0.00	0.10	0.00	0.04

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;

UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Eastern Towhee		0.20	0.00	0.40	0.40	1.00	0.60	1.90	0.64	
Chipping Sparrow		0.40	0.70	0.60	0.80	0.80	0.50	0.90	0.67	
Field Sparrow		1.40	0.90	1.60	1.50	2.40	1.50	2.00	1.61	
Vesper Sparrow		0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.01	
Song Sparrow		2.30	2.00	1.10	1.70	1.70	1.80	2.80	1.91	
Northern Cardinal		0.50	0.20	0.30	0.20	0.00	0.00	0.00	0.17	
Indigo Bunting		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
Bobolink		0.30	1.20	1.10	0.90	4.00	4.10	0.70	1.76	
Red-winged Blackbird		0.70	1.20	2.10	2.60	4.50	4.50	6.90	3.21	
Eastern Meadowlark		0.90	0.30	0.70	1.20	1.00	0.40	0.50	0.71	
Common Grackle		0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.01	
Baltimore Oriole		1.00	0.40	0.20	0.40	0.30	0.30	0.00	0.37	
Purple Finch		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.01	
American Goldfinch		0.50	1.10	0.90	1.10	1.90	1.60	1.10	1.17	
Points Surveyed:		10	10	10	10	10	10	10		
Ave # Birds Per Point Count Station:		19.10	16.90	16.60	18.50	30.60	25.70	27.60	22.14	
Species Richness:		43	36	38	29	35	32	28	64	
Shannon Diversity:		3.39	3.24	3.22	2.93	2.98	2.84	2.71		

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
Canada Goose		0.20	0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.08
Northern Bobwhite		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Great Blue Heron		0.00	0.00	0.10	0.10	0.10	0.00	0.10	0.10	0.05
Turkey Vulture		0.00	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.05
Northern Harrier		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Sharp-shinned Hawk		0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.02
Red-tailed Hawk		0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00	0.02
American Kestrel		0.10	0.20	0.10	0.30	0.10	0.10	0.00	0.00	0.13
American Woodcock		0.00	0.00	0.10	0.20	0.20	0.60	0.00	0.00	0.15
Mourning Dove		0.00	0.50	0.20	0.30	0.20	0.20	0.00	0.00	0.20
Red-bellied Woodpecker		0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Downy Woodpecker		0.00	0.00	0.00	0.00	0.20	0.20	0.00	0.00	0.03
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.00	0.10	0.10	0.10	0.00	0.00	0.03
Pileated Woodpecker		0.10	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.03
Eastern Wood-Pewee		0.00	0.20	0.10	0.10	0.10	0.00	0.20	0.20	0.10
Alder Flycatcher		0.00	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.02
Willow Flycatcher		0.20	0.70	0.00	0.00	0.10	0.10	0.20	0.20	0.20
Least Flycatcher		0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.02
Eastern Phoebe		0.00	0.00	0.00	0.00	0.10	0.10	0.20	0.20	0.07
Great Crested Flycatcher		0.00	0.00	0.10	0.20	0.20	0.00	0.10	0.10	0.07
Eastern Kingbird		0.60	0.20	0.30	1.20	0.30	0.30	0.60	0.60	0.53
Warbling Vireo		0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10	0.02
Red-eyed Vireo		0.00	0.00	0.10	0.00	0.10	0.10	0.00	0.00	0.03
Blue Jay		0.20	0.20	0.00	0.00	0.30	0.30	0.20	0.20	0.15
<i>American Crow</i>		<i>0.50</i>	<i>0.90</i>	<i>2.30</i>	<i>0.90</i>	<i>1.20</i>	<i>1.20</i>	<i>0.80</i>	<i>1.10</i>	<i>1.10</i>

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>										<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>				
<i>Tree Swallow</i>		0.00	0.20	0.00	0.00	0.90	1.00	1.40			0.58	
<i>Barn Swallow</i>		0.00	0.00	0.00	0.00	0.00	0.10	0.00			0.02	
<i>Black-capped Chickadee</i>		0.10	0.00	0.00	0.10	0.10	0.50	0.00			0.13	
<i>Tufted Titmouse</i>		0.30	0.00	0.00	0.00	0.10	0.00	0.00			0.07	
<i>White-breasted Nuthatch</i>		0.10	0.00	0.00	0.00	0.10	0.20	0.00			0.07	
<i>House Wren</i>		0.50	0.00	0.00	0.00	0.50	0.00	0.00			0.17	
<i>Blue-gray Gnatcatcher</i>		0.00	0.00	0.00	0.00	0.00	0.10	0.00			0.02	
<i>Eastern Bluebird</i>		0.20	0.00	0.00	0.00	0.00	0.40	0.00			0.10	
<i>American Robin</i>		0.70	0.60	0.10	0.10	0.30	0.30	0.10			0.35	
<i>Gray Catbird</i>		0.20	0.10	0.10	0.30	0.10	0.60	0.10			0.23	
<i>Northern Mockingbird</i>		0.00	0.00	0.00	0.00	0.40	0.30	0.00			0.12	
<i>Brown Thrasher</i>		0.20	0.00	0.00	0.00	0.00	0.00	0.00			0.03	
<i>European Starling</i>		0.80	0.00	0.00	0.70	0.30	0.10	0.00			0.32	
<i>Cedar Waxwing</i>		0.50	0.60	0.10	0.10	1.00	0.90	1.70			0.80	
<i>Blue-winged Warbler</i>		0.10	0.40	0.40	0.00	0.00	0.40	0.10			0.17	
<i>Yellow Warbler</i>		0.40	0.40	0.40	0.10	0.20	0.50	0.30			0.32	
<i>Chestnut-sided Warbler</i>		0.00	0.00	0.00	0.00	0.40	0.00	0.00			0.07	
<i>Prairie Warbler</i>		0.20	0.00	0.00	0.00	0.10	0.00	0.10			0.07	
<i>American Redstart</i>		0.10	0.00	0.00	0.00	0.00	0.00	0.00			0.02	
<i>Common Yellowthroat</i>		0.70	1.00	1.00	1.50	1.20	1.10	1.40			1.15	
<i>Scarlet Tanager</i>		0.30	0.00	0.00	0.00	0.00	0.00	0.00			0.05	
<i>Eastern Towhee</i>		0.30	0.20	0.20	0.30	0.00	0.20	0.10			0.18	
<i>Chipping Sparrow</i>		0.00	0.10	0.10	0.00	0.10	0.00	0.10			0.05	
<i>Field Sparrow</i>		0.60	0.60	0.60	0.70	1.40	0.60	0.20			0.68	
<i>Savannah Sparrow</i>		0.20	0.00	0.00	0.20	0.00	0.30	0.00			0.12	

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>								<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>		
<i>Song Sparrow</i>		1.60	1.30	2.50	1.60	1.80	2.00	1.80	1.80	
<i>Northern Cardinal</i>		0.10	0.40	0.00	0.00	0.20	0.20	0.15	0.15	
<i>Rose-breasted Grosbeak</i>		0.10	0.10	0.00	0.00	0.00	0.00	0.03	0.03	
<i>Bobolink</i>		3.40	2.20	6.10	8.90	20.70	9.40	8.45	8.45	
<i>Red-winged Blackbird</i>		2.20	5.60	5.20	6.80	8.30	9.40	6.25	6.25	
<i>Eastern Meadowlark</i>		0.60	1.30	2.80	2.30	2.90	3.20	2.18	2.18	
<i>Common Grackle</i>		0.10	0.00	0.10	0.00	0.00	0.00	0.03	0.03	
<i>Baltimore Oriole</i>		0.00	0.40	0.00	0.00	0.00	0.00	0.07	0.07	
<i>American Goldfinch</i>		0.40	0.80	1.20	1.60	1.10	0.80	0.98	0.98	
<i>Points Surveyed:</i>		10	10	10	10	10	10	10	10	
<i>Ave # Birds Per Point Count Station:</i>		17.20	19.30	25.50	32.30	46.20	33.30	28.97	28.97	
<i>Species Richness:</i>		37	26	26	35	37	28	59	59	
<i>Shannon Diversity:</i>		3.03	2.65	2.36	2.55	2.18	2.20			

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>Mean</i>
Green Heron		0.13						0.13	0.13
Red-bellied Woodpecker		0.25						0.25	0.25
Yellow-bellied Sapsucker		0.75						0.75	0.75
Downy Woodpecker		0.63						0.63	0.63
Eastern Wood-Pewee	RC	0.63						0.63	0.63
Willow Flycatcher	UCS	0.13						0.13	0.13
Yellow-throated Vireo		0.13						0.13	0.13
Blue-headed Vireo		0.13						0.13	0.13
Blue Jay		0.25						0.25	0.25
American Crow		1.38						1.38	1.38
Black-capped Chickadee		0.75						0.75	0.75
Tufted Titmouse		0.13						0.13	0.13
White-breasted Nuthatch		0.38						0.38	0.38
House Wren		0.13						0.13	0.13
Veery	RC	0.63						0.63	0.63
Hermit Thrush		0.13						0.13	0.13
Wood Thrush	RC UCC	0.13						0.13	0.13
American Robin		0.38						0.38	0.38
Gray Catbird		0.38						0.38	0.38
Blue-winged Warbler	RC RS UCS	0.13						0.13	0.13
Ovenbird		1.63						1.63	1.63
Common Yellowthroat		0.50						0.50	0.50
Scarlet Tanager		0.38						0.38	0.38
Eastern Towhee	RC	0.75						0.75	0.75
Northern Cardinal		0.63						0.63	0.63

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Northwest

<i>Common Name</i>	<i>PIF Codes</i>	<i>Relative Abundance (birds per point count station)</i>					<i>Mean</i>
		<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	
Rose-breasted Grosbeak					0.13		0.13
Indigo Bunting					0.13		0.13
Common Grackle					0.13		0.13
<i>Points Surveyed:</i>							8
<i>Ave # Birds Per Point Count Station:</i>							11.75
<i>Species Richness:</i>							28
<i>Shannon Diversity:</i>							2.99

CBSD = Common Bird in Steep Decline; RC = Regional Concern Species; RS = Regional Stewardship Species;
 UCC = USA/Canada Concern Species; UCS = USA/Canada Stewardship Species

Appendix C—Forest Avian Ecological Integrity Assessment by Site

This appendix presents results of the Forest Avian Ecological Integrity Assessment for each forest site, combining data from 2006 through 2012. Assessments for parks with only one site are excluded from this appendix since they are included in the main report. Please refer to the Introduction for some important caveats pertaining to the assessment.

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 30 ACAD Schoodic

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	30%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	10%	Caution
Low Canopy Forager	33%	Good
Omnivore	25%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	35%	Caution
Forest-ground Nester	23%	Good
Interior Forest Obligate	48%	Good
Shrub Nester	20%	Caution

Acadia NP - 31 ACAD Giant Slide Trail

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	41%	Sig Concern
Single Brooded	62%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	10%	Good
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	21%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	17%	Caution
Interior Forest Obligate	52%	Good
Shrub Nester	17%	Good

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 32 ACAD Witch Hole Pond

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	25%	Good
Single Brooded	64%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	14%	Good
Low Canopy Forager	22%	Good
Omnivore	31%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	39%	Good
Forest-ground Nester	17%	Caution
Interior Forest Obligate	39%	Good
Shrub Nester	17%	Good

Acadia NP - 33 ACAD Seal Cove Center

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	44%	Sig Concern
Single Brooded	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	9%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	25%	Good
Omnivore	22%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	44%	Good
Forest-ground Nester	13%	Caution
Interior Forest Obligate	53%	Good
Shrub Nester	16%	Good

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 34 ACAD Seal Cove East

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	36%	Caution
Single Brooded	52%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	9%	Good
High Canopy Forager	11%	Caution
Low Canopy Forager	23%	Good
Omnivore	32%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	36%	Good
Forest-ground Nester	9%	Caution
Interior Forest Obligate	41%	Good
Shrub Nester	25%	Sig Concern

Acadia NP - 35 ACAD Seal Cove West

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	38%	Caution
Single Brooded	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	13%	Good
High Canopy Forager	13%	Good
Low Canopy Forager	19%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	16%	Caution
Interior Forest Obligate	47%	Good
Shrub Nester	16%	Good

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Acadia NP - 36 ACAD Youngs Mtn

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	33%	Caution
Single Brooded	73%	Good

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	20%	Good
Ground Gleaner	13%	Good
High Canopy Forager	13%	Good
Low Canopy Forager	20%	Caution
Omnivore	13%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	33%	Caution
Forest-ground Nester	20%	Good
Interior Forest Obligate	47%	Good
Shrub Nester	20%	Caution

Marsh-Billings-Rockefeller NHP - 10 MABI East

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	33%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	20%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	10%	Caution
Low Canopy Forager	15%	Caution
Omnivore	35%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	15%	Caution
Interior Forest Obligate	45%	Good
Shrub Nester	20%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Marsh-Billings-Rockefeller NHP - 11 MABI Northwest

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	33%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	12%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	19%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	40%	Good
Forest-ground Nester	14%	Caution
Interior Forest Obligate	42%	Good
Shrub Nester	16%	Good

Marsh-Billings-Rockefeller NHP - 12 MABI South

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	30%	Caution
Single Brooded	62%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	21%	Caution
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	38%	Good
Forest-ground Nester	13%	Caution
Interior Forest Obligate	36%	Good
Shrub Nester	21%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Minute Man NHP - 13 MIMA Hartwell Tavern

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	5%	Caution
Nest Predator / Brood Parasite	7%	Good
Resident	37%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	5%	Sig Concern
Low Canopy Forager	19%	Caution
Omnivore	40%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	21%	Sig Concern
Forest-ground Nester	7%	Caution
Interior Forest Obligate	19%	Caution
Shrub Nester	33%	Sig Concern

Minute Man NHP - 14 MIMA Meriam's Corner

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	6%	Good
Resident	32%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	4%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	18%	Caution
Omnivore	38%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	4%	Sig Concern
Interior Forest Obligate	14%	Caution
Shrub Nester	26%	Sig Concern

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Minute Man NHP - 15 MIMA The Bluff

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	5%	Caution
Nest Predator / Brood Parasite	11%	Caution
Resident	39%	Caution
Single Brooded	42%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	5%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	16%	Caution
Omnivore	45%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	29%	Sig Concern
Forest-ground Nester	3%	Sig Concern
Interior Forest Obligate	11%	Caution
Shrub Nester	26%	Sig Concern

Morristown NHP - 16 MORR Mt. Kemble

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	33%	Caution
Single Brooded	46%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	21%	Caution
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	13%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	23%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Morristown NHP - 17 MORR Primrose Brook

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	32%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	18%	Caution
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	24%	Caution

Morristown NHP - 18 MORR Soldier's Huts

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	30%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	9%	Good
High Canopy Forager	12%	Caution
Low Canopy Forager	21%	Caution
Omnivore	30%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	33%	Caution
Forest-ground Nester	19%	Good
Interior Forest Obligate	37%	Good
Shrub Nester	23%	Caution

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Saratoga NHP - 23 SARA Middle Ravine

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	31%	Caution
Single Brooded	54%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	10%	Good
High Canopy Forager	5%	Sig Concern
Low Canopy Forager	23%	Good
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	10%	Caution
Interior Forest Obligate	23%	Caution
Shrub Nester	23%	Caution

Saratoga NHP - 24 SARA Wilkinson Trail

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	4%	Good
Resident	31%	Caution
Single Brooded	51%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	20%	Caution
Omnivore	35%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Sig Concern
Forest-ground Nester	12%	Caution
Interior Forest Obligate	24%	Caution
Shrub Nester	29%	Sig Concern

Appendix C. Forest Avian Ecological Integrity Assessment by Site (continued).

Saratoga NHP - 25 SARA Bemis Heights

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	30%	Caution
Single Brooded	53%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	5%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	18%	Caution
Omnivore	43%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	20%	Caution
Shrub Nester	30%	Sig Concern

Saratoga NHP - 38 SARA Northwest

2006 to 2012

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	30%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Caution
Low Canopy Forager	22%	Good
Omnivore	44%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Sig Concern
Forest-ground Nester	15%	Caution
Interior Forest Obligate	22%	Caution
Shrub Nester	26%	Sig Concern

Appendix D—Grassland Avian Ecological Integrity Assessment by Site

This appendix presents results of the Grassland Avian Ecological Integrity Assessment for each grassland site at SARA, combining data from 2006 through 2012. Please refer to the Introduction for some important caveats pertaining to the assessment and changes to the way that the assessment is calculated for this and future reports.

Saratoga NHP - Burgoyne's Headquarters 2006 to 2012

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	50%	Caution
PIF Shrub-dependent	71%	Caution
Edge Generalist	68%	Caution
Exotic	0%	Good
Grassland Obligate	9%	Caution
Shrub-dependent	23%	Caution

Saratoga NHP - Freeman Farm 2006 to 2012

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	50%	Caution
PIF Shrub-dependent	86%	Good
Edge Generalist	67%	Caution
Exotic	2%	Good
Grassland Obligate	9%	Caution
Shrub-dependent	24%	Caution

Saratoga NHP - Neilson Farm 2006 to 2012

<i>Guild</i>	<i>Percentage</i>	<i>Rating</i>
PIF Grassland Obligate	63%	Caution
PIF Shrub-dependent	86%	Good
Edge Generalist	67%	Caution
Exotic	2%	Good
Grassland Obligate	11%	Good
Shrub-dependent	22%	Caution

The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 962/120356, April 2013

National Park Service
U.S. Department of the Interior



Natural Resource Stewardship and Science

1201 Oakridge Drive, Suite 150
Fort Collins, CO 80525

www.nature.nps.gov

EXPERIENCE YOUR AMERICA™