



Northeast Temperate Network Breeding Landbird Monitoring Report

2009 Annual Report

Natural Resource Report NPS/NETN/NRR—2010/190



ON THE COVER

Great-crested Flycatcher. Photograph by: Steven D. Faccio

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Contents

	Page
Figures.....	iv
Tables.....	vi
Acknowledgments.....	vii
Introduction.....	1
Methods.....	3
Avian Ecological Integrity Scorecards	5
Results by Park	7
Acadia National Park (Maine)	7
Eleanor Roosevelt National Historic Site (New York).....	11
Home of Franklin D. Roosevelt National Historic Site (New York).....	15
Marsh-Billings-Rockefeller National Historical Park (Vermont).....	19
Minute Man National Historical Park (Massachusetts).....	23
Morristown National Historical Park (New Jersey).....	26
Saint-Gaudens National Historic Site (New Hampshire)	30
Saugus Iron Works National Historic Site (Massachusetts).....	34
Saratoga National Historical Park (New York)	38
Vanderbilt Mansion National Historic Site (New York)	42
Weir Farm National Historic Site (Connecticut)	46
Literature Cited.....	50
Appendix A. Park Summaries.....	51
Appendix B. Site Summaries.....	68
Appendix C. Avian Forest Scorecard by Site and Year.....	98
Appendix D. Avian Grassland Scorecard by Site and Year.	134

Figures

	Page
Figure 1. Northeast Temperate Network parks where the breeding bird monitoring protocol is being implemented and their associated Bird Conservation Regions. Roosevelt-Vanderbilt National Historical Sites includes Eleanor Roosevelt, Home of Franklin D. Roosevelt, and Vanderbilt Mansion National Historical sites.....	2
Figure 2. Point count locations at Acadia National Park.....	8
Figure 3. Relative abundance of the 10 most common species detected at Acadia National Park, 2007-2009.....	9
Figure 4. Point count locations at Eleanor Roosevelt National Historic Site.....	12
Figure 5. Relative abundance of the 10 most common species at Eleanor Roosevelt National Historic Site, 2006-2009.....	13
Figure 6. Point count locations at the Home of Franklin D. Roosevelt National Historic Site... ..	16
Figure 7. Relative abundance of the 10 most common species detected at the Home of Franklin D. Roosevelt National Historic Site, 2006-2008.....	17
Figure 8. Point count locations at Marsh-Billings-Rockefeller National Historical Park.....	20
Figure 9. Relative abundance of the 10 most common species detected at Marsh-Billings-Rockefeller National Historical Park, 2006-2009.....	21
Figure 10. Point count locations at Minute Man National Historical Park.....	23
Figure 11. Relative abundance of the 10 most common species detected at Minute Man National Historical Park, 2006-2009.....	24
Figure 12. Point count locations at Morristown National Historical Park, Morristown, NJ.....	27
Figure 13. Relative abundance of the 10 most common species detected at Morristown National Historical Park, 2006-2009.....	28
Figure 14. Point count locations at Saint-Gaudens National Historic Site.....	31
Figure 15. Relative abundance of the 10 most common species detected at Saint-Gaudens National Historic Site, 2007-2009.....	32
Figure 16. Point count locations at Saugus Iron Works National Historic Site.....	35
Figure 17. Relative abundance of the 10 most common species detected at Saugus Iron Works National Historic Site, 2008-2009.....	36
Figure 18. Point count locations at Saratoga National Historical Park.....	39

Figure 19. Relative abundance of the 10 most common species detected at Saratoga National Historical Park, 2006-2009.	40
Figure 20. Point count locations at Vanderbilt Mansion National Historic Site.....	43
Figure 21. Relative abundance of the 10 most common species detected at Vanderbilt Mansion National Historic Site, 2006-2009.	44
Figure 22. Point count locations at Weir Farm National Historic Site.	47
Figure 23. Relative abundance of the eight most common species detected at Weir Farm National Historic Site, 2006 and 2009.	48

Tables

	Page
Table 1. Area of forested habitat (and grassland habitat at SARA), and number of point counts and study sites established at NETN parks.....	3
Table 2. Avian ecological integrity thresholds for 13 response guilds.....	6
Table 3. Avian ecological integrity thresholds for four response guilds	6
Table 4. Avian forest scorecard for Acadia National Park, 2007-2009.....	10
Table 5. Avian forest scorecard for Eleanor Roosevelt National Historic Site, 2006-2009.....	14
Table 6. Avian forest scorecard for the Home of Franklin D. Roosevelt National Historic Site, 2006-2008.....	18
Table 7. Avian forest scorecard for Marsh-Billings-Rockefeller National Historical Park, 2006-2009.....	22
Table 8. Avian forest scorecard for Minute Man National Historical Park, 2006-2009.....	25
Table 9. Avian forest scorecard for Morristown National Historical Park, 2006-2009.....	29
Table 10. Avian forest scorecard for Saint-Gaudens National Historic Site, 2007-2009.....	33
Table 11. Avian forest scorecard for Saugus Iron Works National Historic Site, 2008-2009.....	37
Table 12. Avian forest scorecard for Saratoga National Historical Park, 2006-2009.....	41
Table 13. Avian grassland scorecard for Saratoga National Historical Park, 2006-2009.....	41
Table 14. Avian forest scorecard for Vanderbilt Mansion National Historical Site, 2006-2009.....	45
Table 15. Avian forest scorecard for Weir Farm National Historic Site, 2006 and 2009.....	49

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Introduction

The Northeast Temperate Network (NETN) of the National Park Service is tasked with monitoring a suite of representative indicators, called vital signs, of natural resource condition for 12 parks in seven northeastern states and the Appalachian National Scenic Trail. Breeding birds were chosen as one of the NETN vital signs because they are a reliable indicator of ecosystem integrity and they are a high profile taxonomic group. Birds are also 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).

The Northeast Temperate Network and the Vermont Center for Ecostudies (VCE) began monitoring breeding landbirds in most network parks in 2006, using volunteer birders to conduct point count surveys. On a broad scale, all 11 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 2009. As we accumulate more years of data, we plan to expand this report to incorporate more interpretation of the results. In addition, readers should treat the index of biotic integrity (IBI) results as provisional. There are two reasons for this: 1) the IBI 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, this year the IBI results presented for each park were produced by combining data from all survey years at a given park (up to four years of data). In the future, we plan to work with park managers to produce a parallel IBI based on park management goals.

NETN and VCE are currently working to improve quality control procedures for this project, and this effort includes a thorough review of existing data. The results presented here may change slightly in future reports if data errors are detected and subsequently corrected.

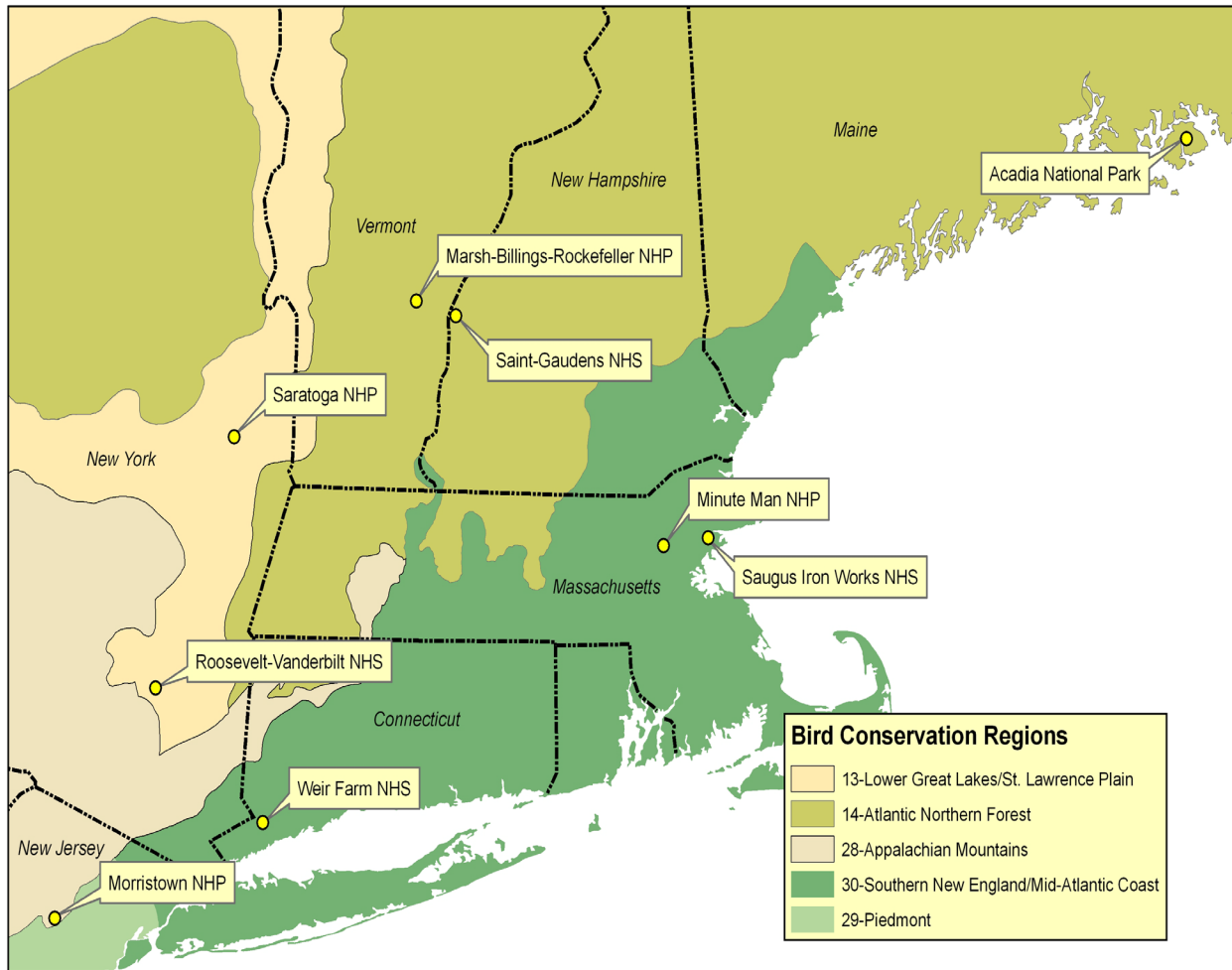


Figure 1. Northeast Temperate Network parks where the breeding bird monitoring protocol is being implemented and their associated Bird Conservation Regions. Roosevelt-Vanderbilt National Historical Sites includes Eleanor Roosevelt, Home of Franklin D. Roosevelt, and Vanderbilt Mansion National Historical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

Methods

Depending on size and habitat, each park has one or more study sites, or groups of point count locations in close proximity and similar habitat. Sites contain 3-12 point count locations (Table 1), with each location separated by approximately 250m. All study sites were forested, except for three sites at Saratoga National Historical Park (NHP) which were in grasslands. Volunteer birders visit each point at least once per year between late May and June; parks with fewer than 10 point count locations are visited multiple times. Volunteers record the species of each individual they detect, the time during the count when each individual is first detected, and the distance band within which each individual was detected (0-10m, 10-25m, 25-50m, and >50m). The data are recorded on field cards and input into the USGS Point Count Database, which was first used for archiving data in 2007. Data from 2006 surveys were incorporated into the USGS Point Count Database during 2009, and results from that year have been included in this report.

Table 1. Area of forested habitat (and grassland habitat at SARA), and number of point counts and study sites established at NETN parks. For ACAD, numbers in parenthesis indicated the target number of points and sites.

NETN Park	Forested Habitat (ha)	Number of Point Counts Established	Number of Study Sites Established
Acadia NP	12,876	44 (120)	6 (12-15)
Marsh-Billings-Rockefeller NHP	197	25	3
Minute Man NHP	194	27	3
Morristown NHP	465	30	3
Roosevelt-Vanderbilt NHP	192	30	3
Saint-Gaudens NHS	43	5	1
Saratoga NHP - Forest	860	30	3
- Grassland	325	25	3
- Total	1,185	55	6
Saugus Iron Works	--	3	1
Weir Farm NHS	21	5	1

Avian Ecological Integrity Scorecards

Included in this summary is an assessment of the biotic integrity of the forest breeding bird community at each park, and the grassland breeding bird community at Saratoga NHP, 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). Such an index of biotic integrity (IBI) will help elucidate changes in a broader, landscape context and indicate in which direction breeding bird habitat at the park may be moving along a disturbance gradient from “highly disturbed” or “urban”, to “pristine” or “natural”.

The forest guild-based avian ecological integrity scorecard consists of 13 guilds in eight guild categories, and the grassland scorecard consists of four guilds, with each guild being broadly categorized as “specialist” or “generalist”. A specialist can be a species with a narrow range of habitat tolerances, or one that exhibits a low intrinsic rate of population growth. Specialist guilds may be thought of as those indicative of a high-integrity habitat condition, while generalist guilds are those indicative of a low-integrity condition.

To calculate the scorecards, species 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 Table 2 and Table 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 actions.

For forest species, the thresholds 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 are derived from Browder et al. (2002) and Coppedge et al. (2006). This is a first attempt at applying this index; 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 IBI results based on only one year of data may not be accurate. We have attempted to rectify this problem by presenting an IBI based on all available data (up to 4 years) for each park. Where 3 or 4 years of data were used, it is likely that the IBI results provide an accurate picture of the ecological health of the forest bird community. We recognize that the scorecard is based on ecological criteria, and that park management goals may not seek to attain “ecological integrity”. A management scorecard could be developed by park staff and NETN scientists that would reflect progress towards avian and ecological management goals for individual parks.

For more information about the avian ecological integrity scorecards, as well as project methodologies, sampling scheme, etc, see the Breeding Landbird Monitoring Protocol (Faccio et al. 2009), available at the NPS Northeast Temperate Network website at <http://science.nature.nps.gov/im/units/NETN/monitor/>.

Table 2. 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	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. Avian ecological integrity thresholds for four response guilds (based on Browder et al. 2002, and Coppedge et al. 2006). Percentages are proportional species richness.

Response Guild Metric	Ratings (% Species Richness)		
	Good	Caution	Significant Concern
Edge generalist	<20%	20 - 50%	>50%
Shrub-dependant	<10%	10 - 25%	>25%
Grassland obligate	>10%	5 - 10%	<5%
Exotic	0%	0.1 - 3%	>3%

Results by Park

Acadia National Park (Maine)

A total of 51 point count locations in seven study sites were established in 2007 at Acadia National Park (ACAD) in Maine (Figure 2). Of these, five sites on Mt. Desert Island (MDI) and one on the Schoodic Peninsula have been surveyed at least once since 2007. On MDI, point counts were conducted at three sites, Giant Slide Trail (n = 10 points), Seal Cove East (n = 7 points), and Seal Cove Center (n = 6 points) during 2007-2009, and at two sites, Witch Hole Pond (n = 9 points) and Youngs Mountain (n = 7 points) in 2009. The Schoodic Peninsula site (n = 6 points) was only surveyed in 2007, and Seal Cove West (6 points) has not yet been surveyed.

During 2009 surveys, a total of 525 individual birds were detected, while 262 were detected in 2007 and 333 in 2008 (including repeat surveys at two sites in 2008 and 2009). Fifty-four total species have been recorded over the three years of monitoring, including three (Pine Warbler, Yellow-bellied Flycatcher, and Yellow-Bellied Sapsucker) which were detected only on the second survey. Average abundance increased from 9.36 birds per point in 2008 to 10.69 birds per point in 2009 (excluding the repeat surveys, which could bias the abundance estimate). Four species of regional conservation concern were detected during the surveys: Boreal Chickadee, Wood Thrush, Blackpoll Warbler, and Eastern Towhee. Appendices A and B contain the species and relative abundances found throughout the park and at each site during the first survey of each year, and other summary statistics. Among the 10 most abundant species detected at all sites combined, 2009 levels of three species (Hermit Thrush, Black-capped Chickadee, and Red-breasted Nuthatch) were above 2008 levels, while the other seven species declined between 2008 and 2009 (Figure 3).

The park-wide avian forest scorecard 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”, indicating that the forest bird community appears to be doing well (Table 4). The scorecard has also been calculated for each study site, and these results are in Appendix C.

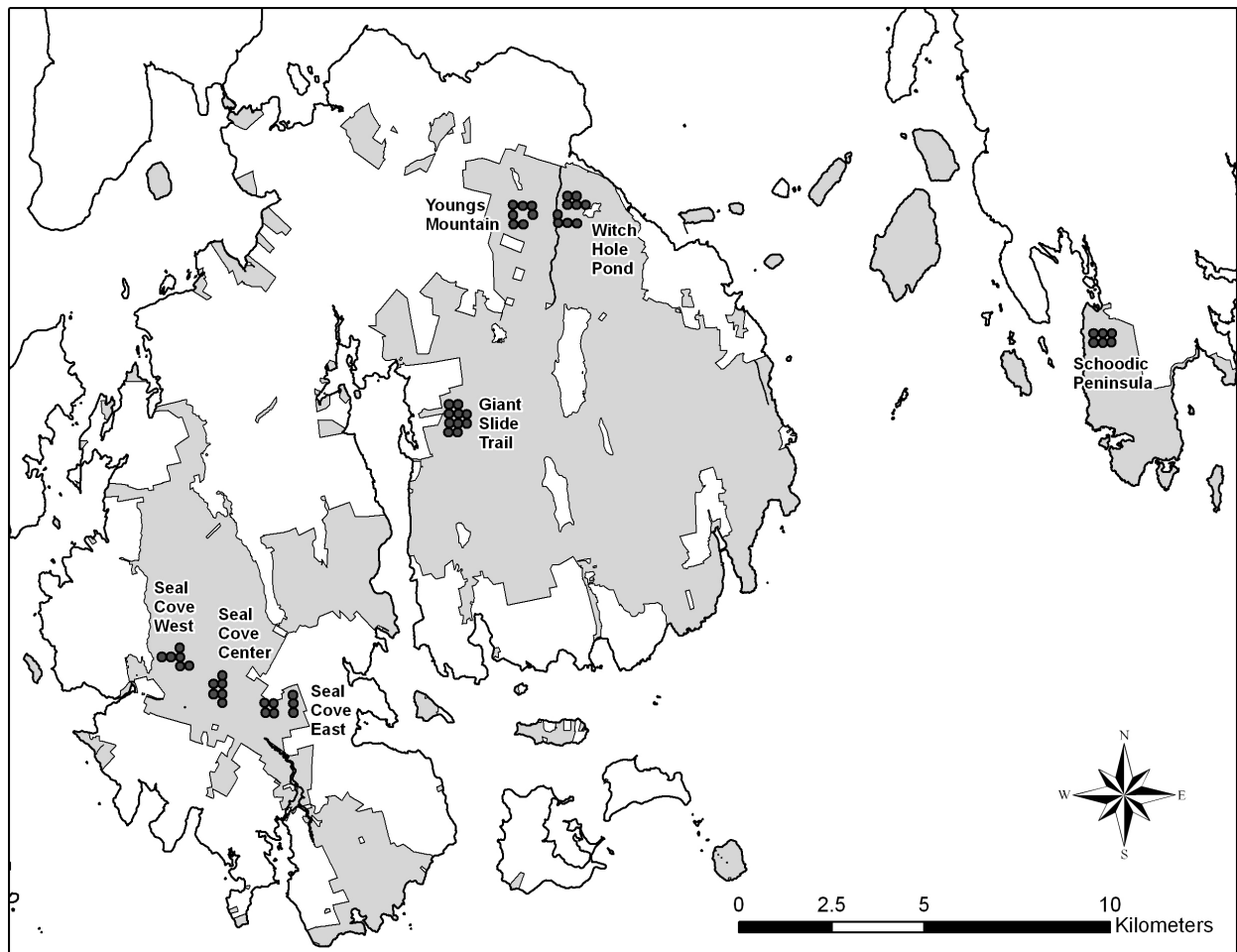


Figure 2. Point count locations at Acadia National Park.

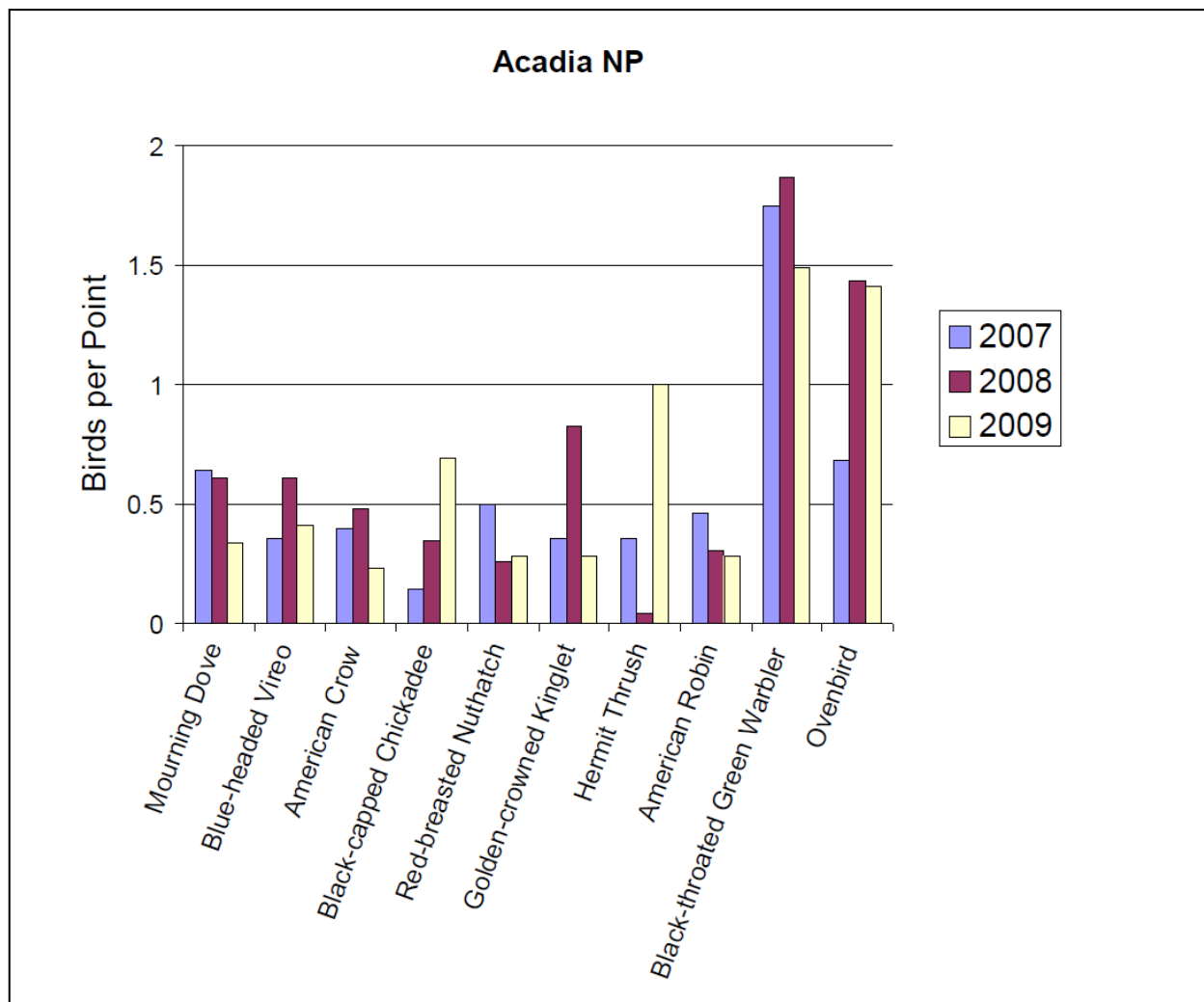


Figure 3. Relative abundance of the 10 most common species detected at Acadia National Park, 2007-2009.

Table 4. Avian forest scorecard for Acadia National Park, 2007-2009.

Acadia NP		2007 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	6%	Good
	Resident	28%	Good
	Single Brooded	56%	Caution
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	13%	Good
	Ground Gleaner	7%	Caution
	High Canopy Forager	7%	Caution
	Low Canopy Forager	22%	Good
	Omnivore	30%	Good
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	30%	Caution
	Forest-ground Nester	15%	Caution
	Interior Forest Obligate	39%	Good
	Shrub Nester	24%	Caution

Eleanor Roosevelt National Historic Site (New York)

The Roosevelt-Vanderbilt National Historic Sites (ROVA) consist of three separate park units at which study sites were established in 2006 and surveyed annually. The study site at Eleanor Roosevelt NHS (ELRO) originally consisted of six point count locations, but five additional sampling points were added for the 2007 field season, increasing the total to 11 point count locations (Figure 4).

During 2009, a total of 93 individuals of 25 species were detected, compared to 82 individuals of 23 species in 2008, and 113 individuals of 28 species in 2007. Sixty-three individuals of 19 species were detected at the six point count locations surveyed in 2006. In total, 39 species were recorded in all four years, and there was an average abundance of 9.17 birds per point. In 2009, both relative abundance (8.45 birds per point) and species richness increased from 2008, with several species being detected for the first time in the count's 4-year history (Canada Goose, Wood Duck, Red-shouldered Hawk, Eastern Bluebird, Louisiana Waterthrush). A total of four species of conservation concern were detected during surveys at ELRO: Eastern Wood-Pewee, Wood Thrush, Worm-Eating Warbler, and Baltimore Oriole. 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 were the most commonly detected species across all years (Figure 5).

The park-wide avian forest scorecard for all years combined at ELRO resulted in three categories ranked as "Good", seven ranked as "Caution", and three ranked as "Significant Concern" (Table 5). Among the categories ranked as "Significant Concern" were "single brooded", a guild that represents long-distance Neotropical migrants that only have time to raise one brood of chicks, and "low canopy foragers", which specialize in feeding in the forest sub-canopy. A low proportion of single-brooded species may be indicative of the park's location within a fragmented landscape, while a lack of low-canopy foragers may reflect poor structural diversity within the forest, perhaps due to a deer over-browse problem.

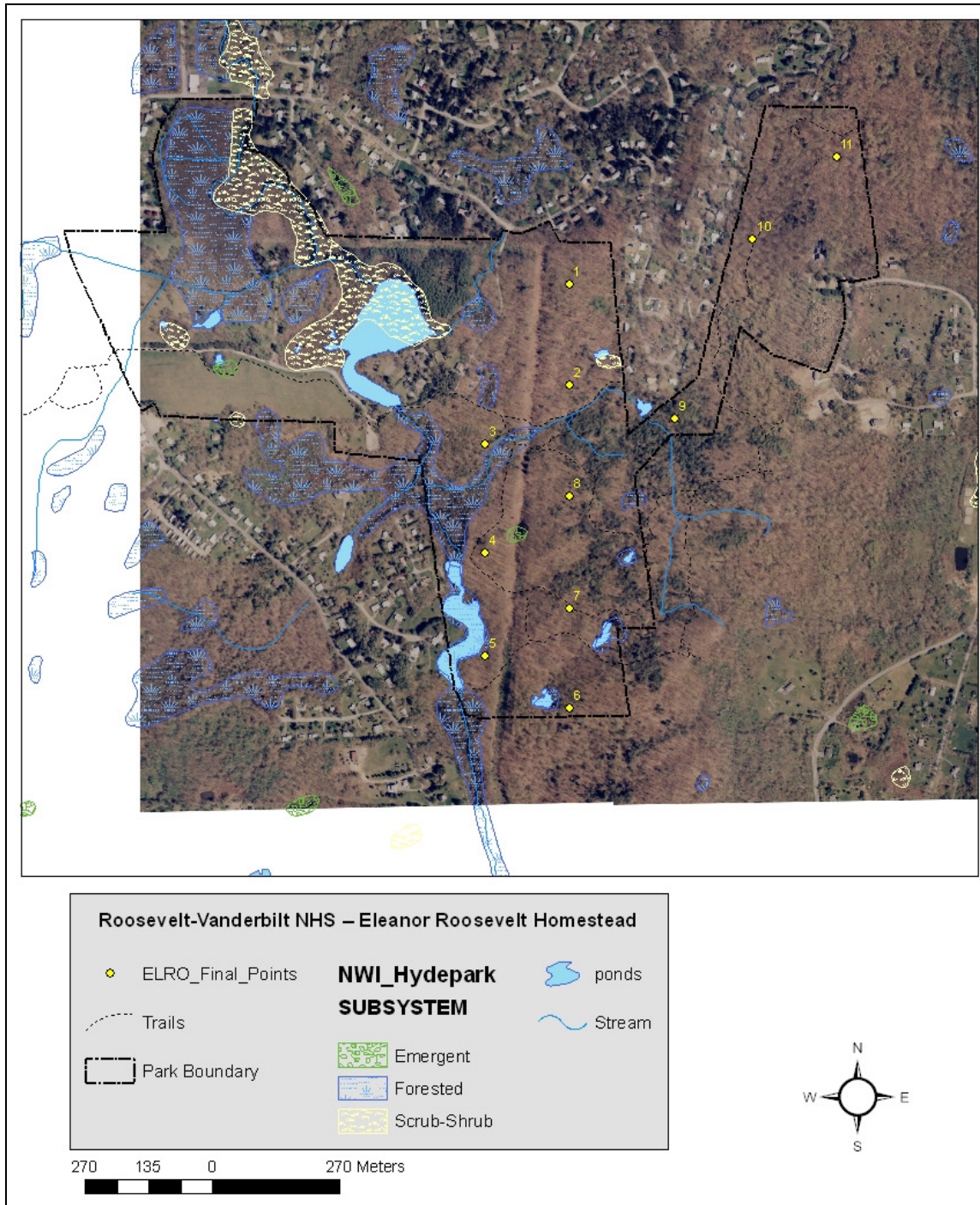


Figure 4. Point count locations at Eleanor Roosevelt National Historic Site.

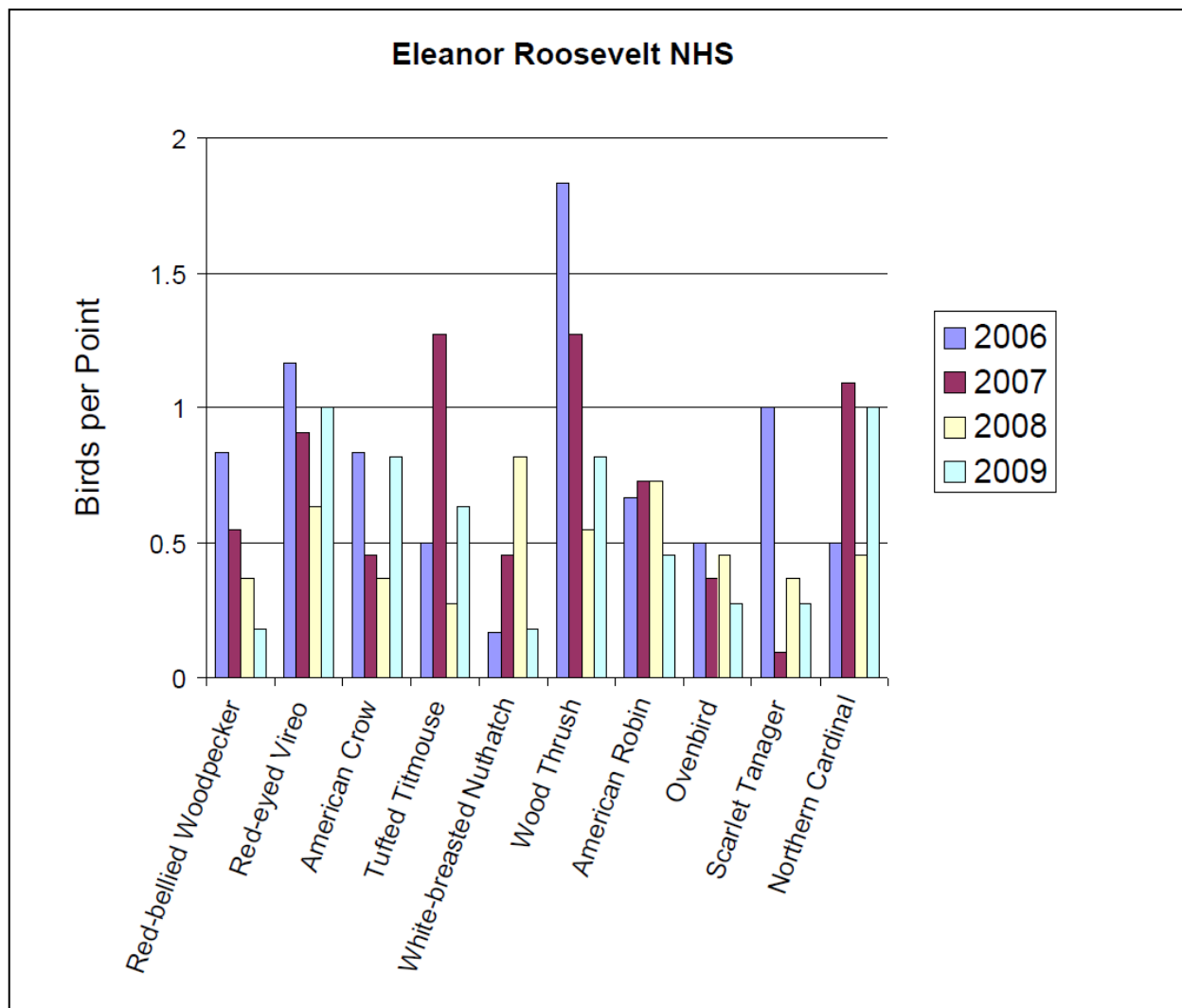


Figure 5. Relative abundance of the 10 most common species at Eleanor Roosevelt National Historic Site, 2006-2009.

Table 5. Avian forest scorecard for Eleanor Roosevelt National Historic Site, 2006-2009.

Eleanor Roosevelt NHS		2006 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	5%	Good
	Resident	33%	Caution
	Single Brooded	44%	Sig Concern
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	15%	Good
	Ground Gleaner	8%	Caution
	High Canopy Forager	8%	Caution
	Low Canopy Forager	8%	Sig Concern
	Omnivore	38%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	23%	Sig Concern
	Forest-ground Nester	10%	Caution
	Interior Forest Obligate	23%	Caution
	Shrub Nester	21%	Caution

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

The Roosevelt-Vanderbilt National Historic Sites (ROVA) consist of three separate park units at which study sites were established in 2006 and surveyed annually. Twelve point count locations were established at the Home of Franklin D. Roosevelt National Historic Site (HOFR) (Figure 6) and surveyed in all years except 2009.

A total of 83 individual birds were detected in 2008, 101 in 2007, and 94 in 2006. In total, 40 species were recorded, and there was an average abundance of 7.72 birds per point. Both relative abundance and species richness declined between 2007 and 2008, despite some new species being encountered in 2008: Mute Swan, Yellow-Throated Vireo, and Carolina Wren. Three species of conservation concern were detected during the three survey years: Eastern Wood-Pewee, Wood Thrush, and Baltimore Oriole. A list of species, their relative abundances, and other summary statistics are provided in Appendix A. Tufted Titmouse, Red-Eyed Vireo, and Wood Thrush were the most commonly detected species (Figure 7).

The park-wide avian forest scorecard for all years combined at HOFR resulted in three categories ranked as “Good” and 10 ranked as “Caution” (Table 6). The two categories that were closest to “Significant Concern” were “single brooded”, a guild that represents long-distance Neotropical migrants that only have time to raise one brood of chicks, and “low canopy foragers”, which specialize in feeding in the forest sub-canopy. A low proportion of single-brooded species may be indicative of the park’s location within a fragmented landscape, while a lack of low-canopy foragers may reflect poor structural diversity within the forest, perhaps due to a deer over-browse problem. Interestingly, the IBI result for HOFR were quite similar to that of adjacent ELRO.



Figure 6. Point count locations at the Home of Franklin D. Roosevelt National Historic Site.

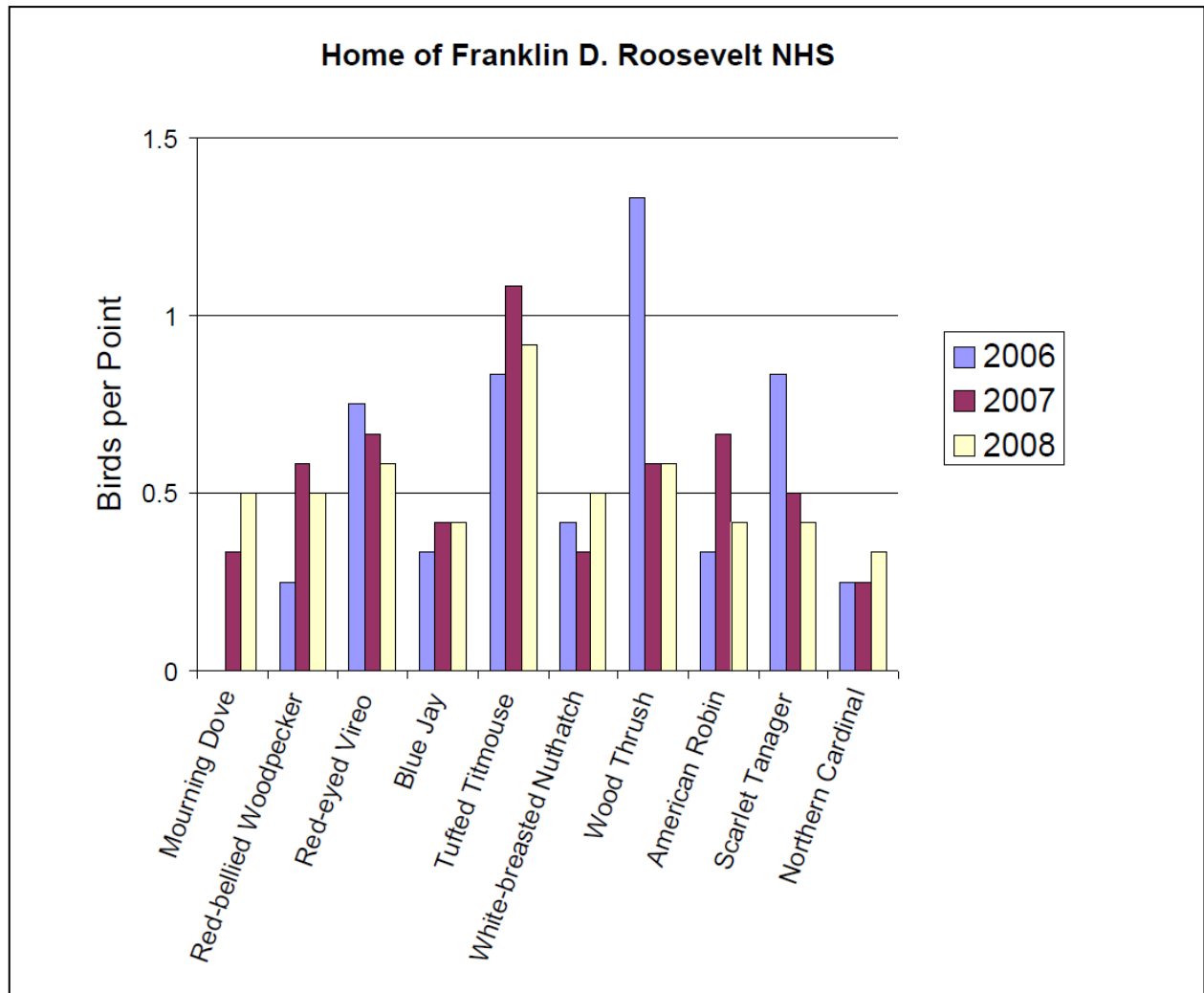


Figure 7. Relative abundance of the 10 most common species detected at the Home of Franklin D. Roosevelt National Historic Site, 2006-2008.

Table 6. Avian forest scorecard for the Home of Franklin D. Roosevelt National Historic Site, 2006-2008.

Home of Franklin D. Roosevelt NHS		2006 to 2008	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	10%	Caution
	Resident	38%	Caution
	Single Brooded	50%	Caution
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	15%	Good
	Ground Gleaner	8%	Caution
	High Canopy Forager	10%	Caution
	Low Canopy Forager	15%	Caution
	Omnivore	30%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	30%	Caution
	Forest-ground Nester	8%	Caution
	Interior Forest Obligate	20%	Caution
	Shrub Nester	20%	Caution

Marsh-Billings-Rockefeller National Historical Park (Vermont)

Three study sites were established at the Marsh Billings-Rockefeller National Historical Park (MABI) and surveyed annually since 2006. Two of these sites (MABI Northwest and MABI East) consist of 10 point count locations each, and one site (MABI South) consists of five point count locations (Figure 8). In 2007, MABI South was surveyed twice, while in 2008, only five of the 10 point counts at MABI Northwest were completed due to inclement weather, although those five points were surveyed twice.

Including repeat surveys, a total of 336 individuals of 35 species were detected in 2009, while 351 individuals of 38 species were detected in 2008, 407 individuals of 48 species were detected in 2007, and 368 of 42 species were detected in 2006. In total, 55 species were recorded in all four years, with an average abundance of 15.31 birds per point (not including repeat surveys, which could bias the abundance estimate). In 2009, relative abundance (13.44 birds per point) was up slightly from 2008, while species richness decreased, even though two new species were detected (Chimney Swift and Mourning Warbler). Two species of regional conservation concern, Wood Thrush and Bobolink, were detected during the four survey years. A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B. Ovenbird and Red-eyed Vireo were the most abundant species detected (Figure 9).

The park-wide avian forest scorecard for all years combined at MABI resulted in five categories ranked as “Good”, eight ranked as “Caution”, and none ranked as “Significant Concern” (Table 7). It should be noted that three of four Structural Response Guilds that were ranked as “Caution” (shrub nester, interior forest obligate, and canopy nester) were just one percentage point away from a “Good” rating, suggesting that the forest bird community is doing well at Marsh-Billings-Rockefeller National Historical Park. The scorecard has also been calculated for each site, individually, and these results are provided in Appendix C.

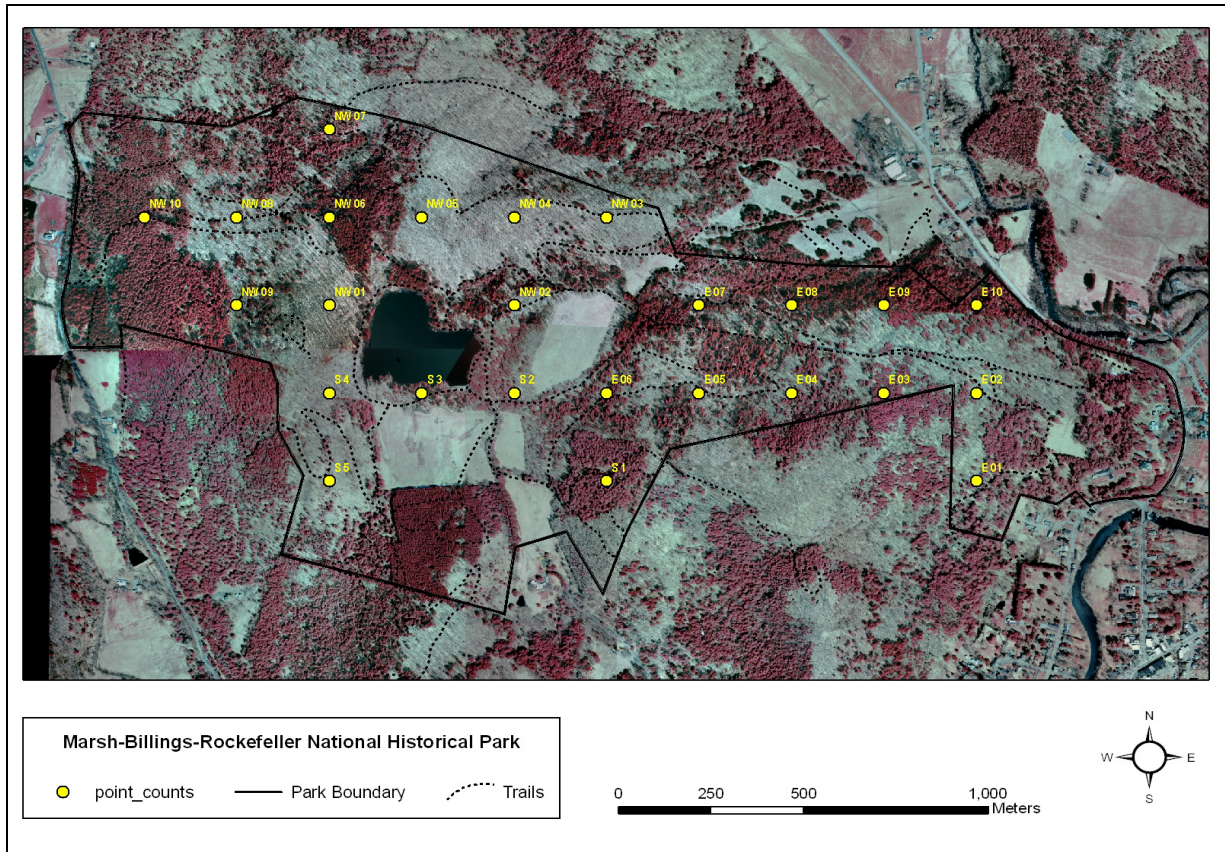


Figure 8. Point count locations at Marsh-Billings-Rockefeller National Historical Park.

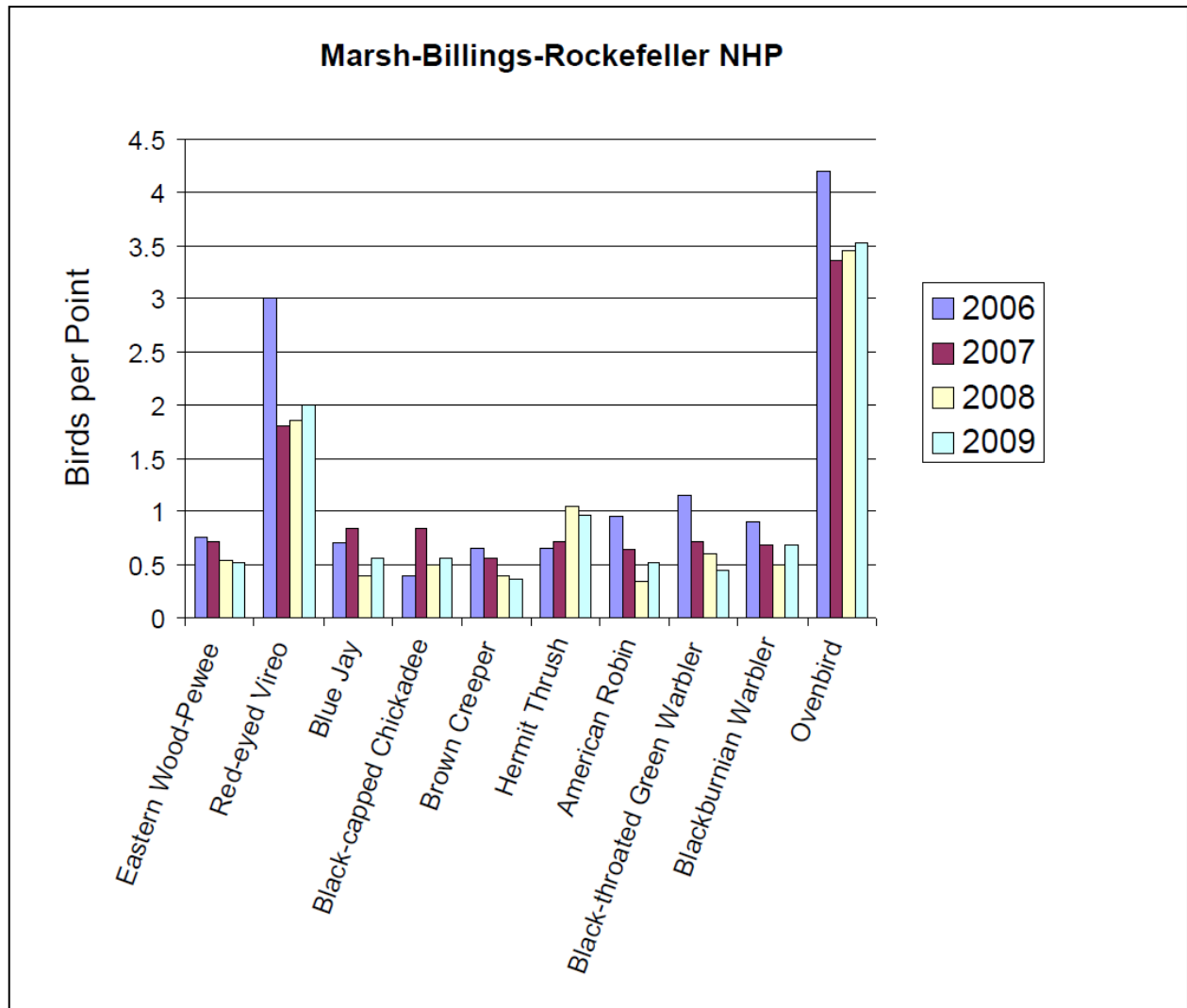


Figure 9. Relative abundance of the 10 most common species detected at Marsh-Billings-Rockefeller National Historical Park, 2006-2009.

Table 7. Avian forest scorecard for Marsh-Billings-Rockefeller National Historical Park, 2006-2009.

Marsh-Billings-Rockefeller NHP		2006 to 2009	
Integrity Element:	<i>Compositional</i>		
	Response Guild	Percentage	Rating
	Exotic	0%	Good
	Nest Predator / Brood Parasite	7%	Good
	Resident	27%	Good
	Single Brooded	58%	Caution
Integrity Element:	<i>Functional</i>		
	Response Guild	Percentage	Rating
	Bark Prober	15%	Good
	Ground Gleaner	9%	Good
	High Canopy Forager	7%	Caution
	Low Canopy Forager	16%	Caution
	Omnivore	31%	Caution
Integrity Element:	<i>Structural</i>		
	Response Guild	Percentage	Rating
	Canopy Nester	35%	Caution
	Forest-ground Nester	13%	Caution
	Interior Forest Obligate	35%	Caution
	Shrub Nester	18%	Caution

Minute Man National Historical Park (Massachusetts)

Three study sites were established at the Minute Man National Historical Park (MIMA), located in Lexington and Concord, MA, and have been surveyed annually since 2006. Two of these sites (The Bluff and Miriam’s Corner) consist of eight point count locations each, and one site (Hartwell Tavern) consists of seven point count locations (Figure 10). The Bluff was surveyed twice in all years except 2006.

Including repeat surveys, a total of 471 individual birds were detected in 2009, compared to 347 in 2008, 384 in 2007, and 286 in 2006 (when The Bluff was surveyed only once). A total of 56 species were recorded during the four survey years, with an average abundance of 13.13 birds per point (excluding the repeat surveys, which could bias the abundance estimate). In 2009, both total abundance (15.78 birds per point) and species richness (47) increased over 2008, thanks to six new species being detected (Great Blue Heron, Red-tailed Hawk, Alder Flycatcher, Barn Swallow, Blue-gray Gnatcatcher, and Eastern Bluebird). A total of 10 species of regional conservation concern were detected during the four survey years, 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. Tufted Titmouse, American Robin, and Blue Jay were the most abundant species detected (Figure 11).

The park-wide avian forest scorecard 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). This result is not unexpected and is likely due to the urbanized and highly fragmented landscape of the park and surrounding area. The scorecard has also been calculated for each site, and these results are in Appendix C.

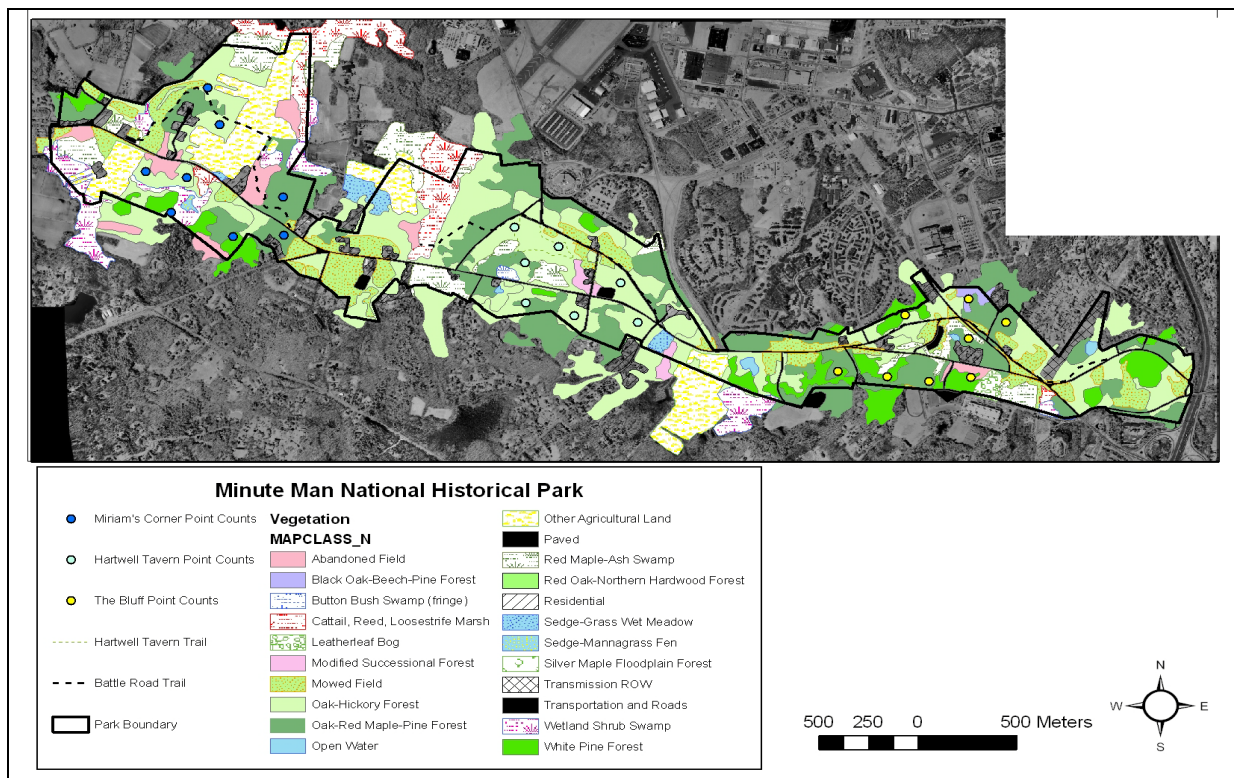


Figure 10. Point count locations at Minute Man National Historical Park.

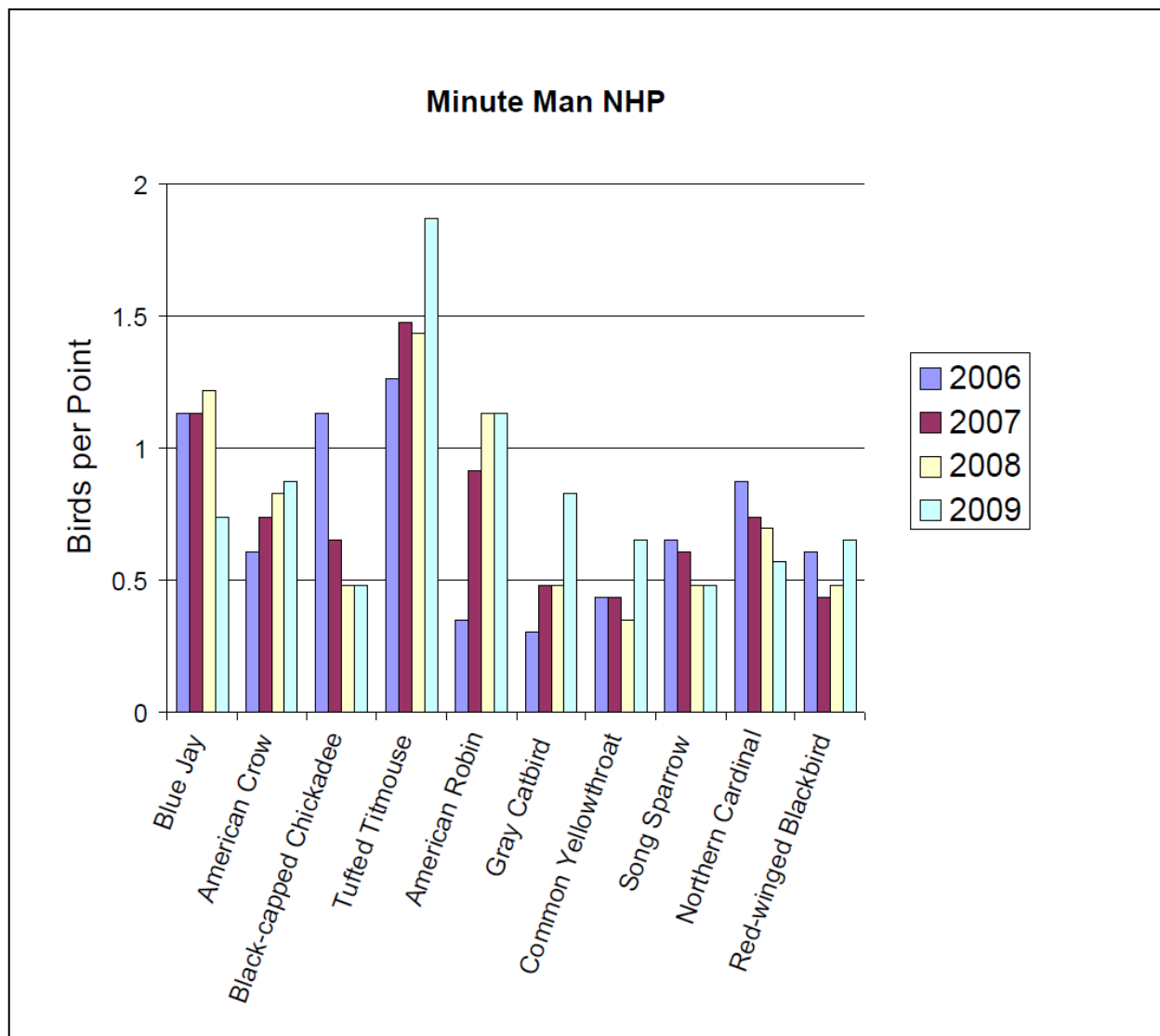


Figure 11. Relative abundance of the 10 most common species detected at Minute Man National Historical Park, 2006-2009.

Table 8. Avian forest scorecard for Minute Man National Historical Park, 2006-2009.

Minute Man NHP		2006 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	4%	Caution
	Nest Predator / Brood Parasite	5%	Good
	Resident	29%	Caution
	Single Brooded	43%	Sig Concern
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	9%	Caution
	Ground Gleaner	5%	Caution
	High Canopy Forager	7%	Caution
	Low Canopy Forager	16%	Caution
	Omnivore	34%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	23%	Sig Concern
	Forest-ground Nester	5%	Caution
	Interior Forest Obligate	14%	Caution
	Shrub Nester	25%	Sig Concern

Morristown National Historical Park (New Jersey)

Three study sites were established at the Morristown National Historical Park (MORR), two of which (Primrose Brook and Soldier's Huts) were surveyed in 2006 and 2007, and two (Primrose Brook and Mt. Kemble) that were surveyed in 2008 and 2009. Primrose Brook and Mt. Kemble consist of 10 point count locations each, while Soldier's Huts consists of nine point count locations (Figure 12). Primrose Brook and Mt. Kemble were both surveyed twice in 2008 and 2009.

Including repeat surveys, a total of 414 individual birds were detected in 2009, while 442 were detected in 2008, 261 were detected in 2007, and 199 were detected in 2006. A total of 49 species were recorded during the four survey years, including American Goldfinches detected on the repeat surveys of Mt. Kemble in 2008 and 2009, and there was an average abundance of 11.73 birds per point (excluding the repeat surveys, which could bias the abundance estimate). A total of nine species of regional conservation concern were detected during the four survey years, including three species (Eastern Wood-Pewee, Wood Thrush, and Eastern Towhee) that were detected in all four years. In addition, Eastern Wood-Pewee and Wood Thrush were among the ten 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 avian forest scorecard for all years combined at MORR resulted in three categories ranked as "Good", eight ranked as "Caution", and two ranked as "Significant Concern" (Table 9). The "Significant Concern" metrics were for shrub nesters and canopy nesters (both within the structural guild), and other structural guilds rated "Caution". In addition, guilds within the functional category were dominated by "Caution" ranks. This could be related to the low structural diversity throughout much of the park; the legacy of a high deer population has resulted in very limited forest regeneration. The scorecard has also been calculated for each site, and these results are provided in Appendix C.

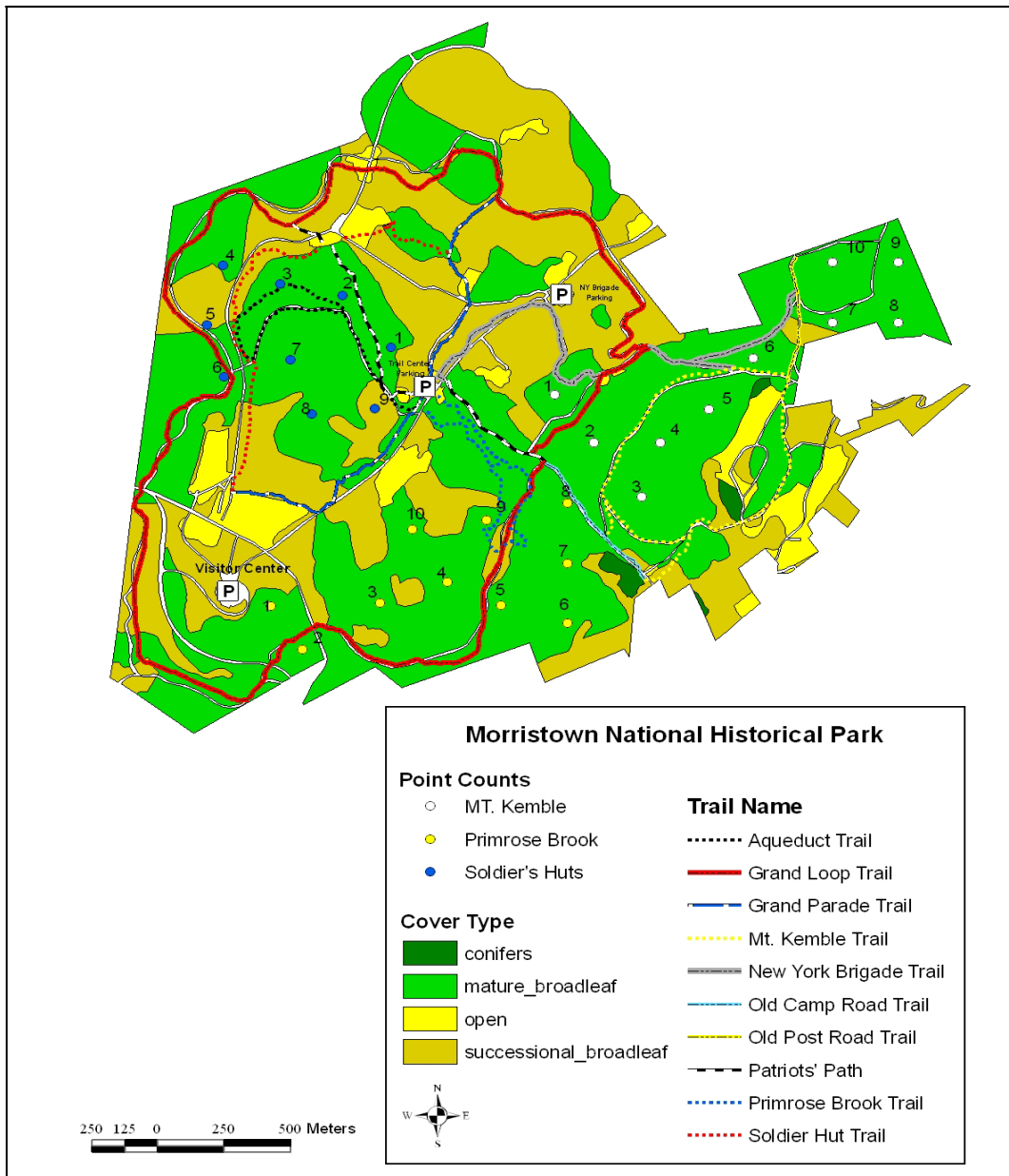


Figure 12. Point count locations at Morristown National Historical Park, Morristown, NJ.

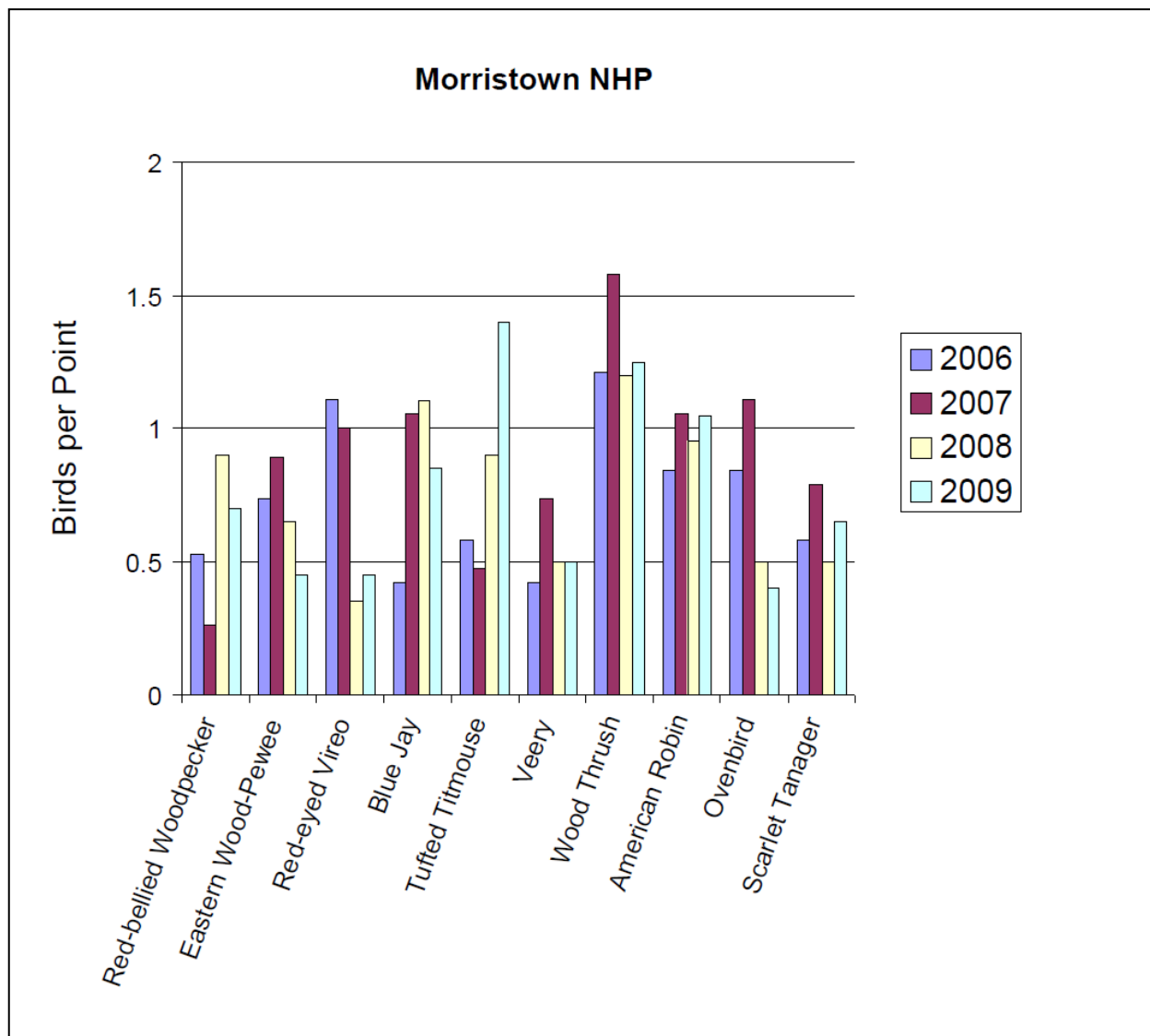


Figure 13. Relative abundance of the 10 most common species detected at Morristown National Historical Park, 2006-2009.

Table 9. Avian forest scorecard for Morristown National Historical Park, 2006-2009.

Morristown NHP		2006 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	6%	Good
	Resident	29%	Caution
	Single Brooded	51%	Caution
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	12%	Good
	Ground Gleaner	8%	Caution
	High Canopy Forager	8%	Caution
	Low Canopy Forager	18%	Caution
	Omnivore	33%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	22%	Sig Concern
	Forest-ground Nester	16%	Caution
	Interior Forest Obligate	31%	Caution
	Shrub Nester	24%	Sig Concern

Saint-Gaudens National Historic Site (New Hampshire)

Eight point count locations (Figure 14) were established at Saint-Gaudens National Historic Site (SAGA), and surveyed annually since 2007. The park was surveyed twice in 2008 and 2009.

Including repeat surveys, a total of 211 individual birds were detected in 2009, compared to 181 in 2008, and 80 in 2007 (when only one survey was conducted). A total of 48 species were recorded during the three survey years, including four species that were only detected during follow-up surveys in 2008 or 2009 (Solitary Sandpiper, Yellow-throated Vireo, Cedar Waxwing, and Yellow-rumped Warbler). There was an average abundance of 11.25 birds per point (excluding the second survey, which could bias the abundance estimate). In 2009, both relative abundance and species richness during the first count (Appendix A) decreased from the previous year, despite the detection of six new species (Mourning Dove, Great Crested Flycatcher, Red-breasted Nuthatch, White-breasted Nuthatch, Winter Wren, and Northern Waterthrush). Three species of regional conservation concern were detected during the surveys: Belted Kingfisher, Willow Flycatcher, and Wood Thrush. A list of species, their relative abundances, and other summary statistics from the first survey of each point are provided in Appendix A. The most commonly detected species were Ovenbird and Red-eyed Vireo (Figure 15).

The park-wide avian forest scorecard for all years combined at SAGA resulted in six categories ranked as “Good”, and seven ranked as “Caution” (Table 10). Overall, composition metrics were generally “Good”, while function and structural guilds were largely “Caution”. While the predominance of “Caution” ratings for structure and function might warrant further exploration, this ranking may be partially due to incomplete characterization of the park’s avian community.

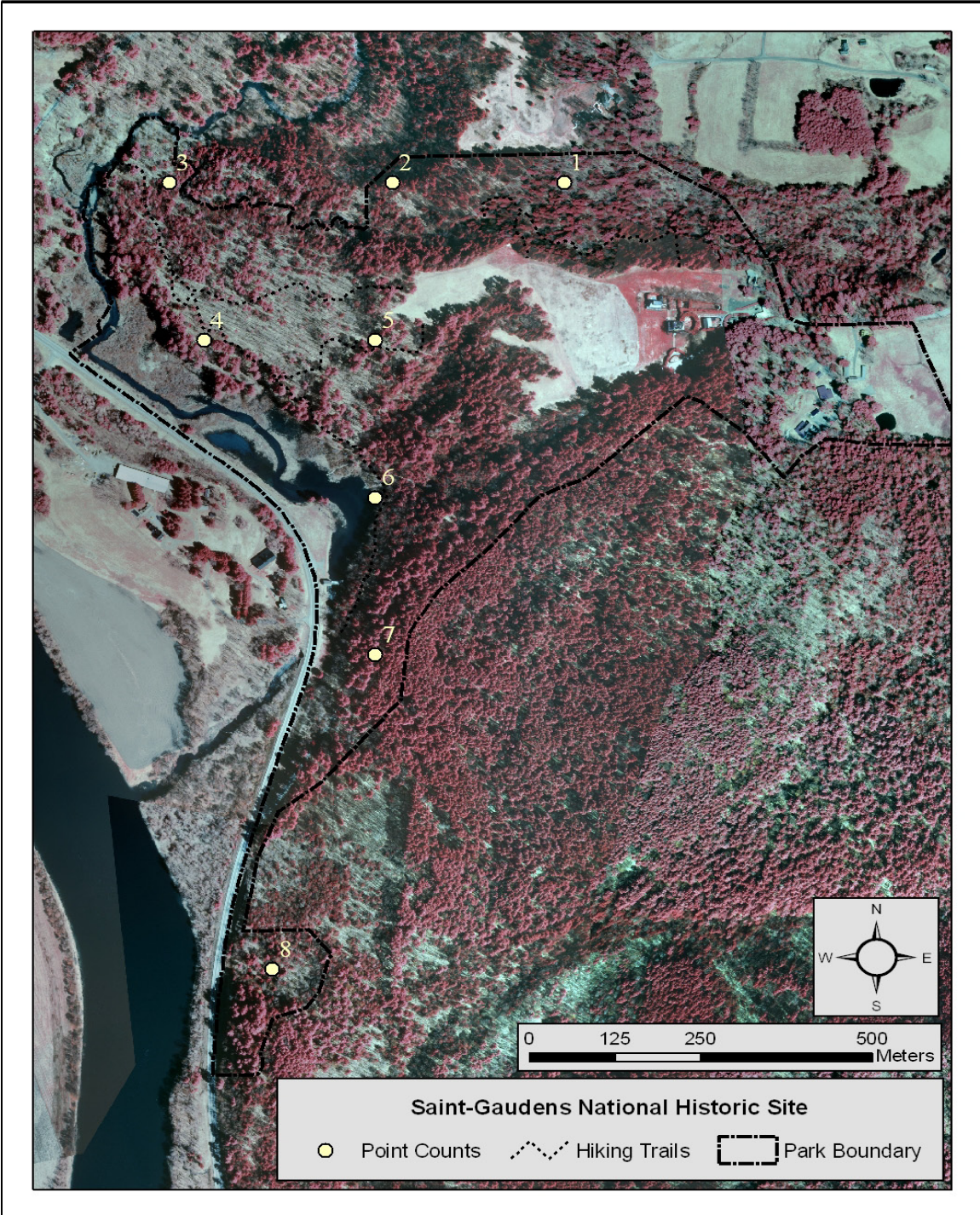


Figure 14. Point count locations at Saint-Gaudens National Historic Site.

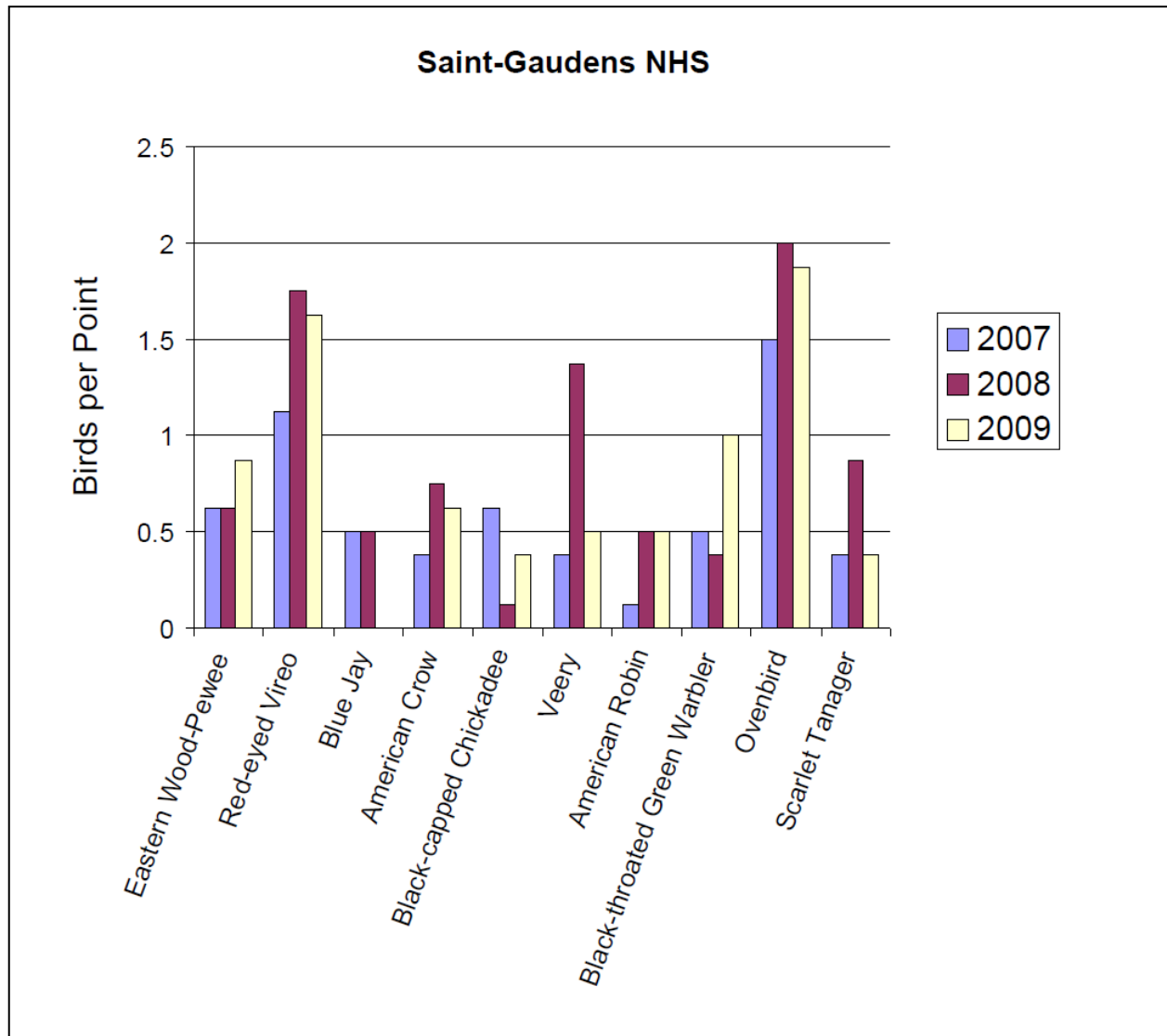


Figure 15. Relative abundance of the 10 most common species detected at Saint-Gaudens National Historic Site, 2007-2009.

Table 10. Avian forest scorecard for Saint-Gaudens National Historic Site, 2007-2009.

Saint-Gaudens NHS		2006 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	6%	Good
	Resident	23%	Good
	Single Brooded	60%	Caution
<i>Integrity Element:</i>	<i>Functional</i>		
	<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	19%	Caution
	Omnivore	29%	Good
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	31%	Caution
	Forest-ground Nester	15%	Caution
	Interior Forest Obligate	35%	Good
	Shrub Nester	23%	Caution

Saugus Iron Works National Historic Site (Massachusetts)

Three point count locations were established in 2008 at Saugus Iron Works National Historic Site (SAIR) in Saugus, MA (Figure 16). A single survey of these three point count locations was conducted during June 2008, and three surveys were conducted in 2009. Due to the limited number of point count locations at SAIR, multiple surveys were encouraged to increase sample size.

Including repeat surveys, a total of 151 individual birds of 32 species were recorded in 2009, compared to just 35 individuals of 21 species during the single survey in 2008. A total of 35 species have been detected at the park during the two years, including nine that were observed only during the repeat surveys in 2009 (Canada Goose, Great-Blue Heron, Great Egret, Greater Black-backed Gull, Killdeer, Black-capped Chickadee, Brown-headed Cowbird, Carolina Wren, and House Wren). There was a mean abundance of 14.33 birds per point (excluding repeat surveys, which could bias the abundance estimate). In 2009, relative abundance increased from the previous year, while species richness of the first survey declined, despite the detection of five new species (Black-crowned Night Heron, Chimney Swift, Eastern Phoebe, Red-eyed Vireo, and American Goldfinch). Two species of conservation concern (Chimney Swift and Baltimore Oriole) and three non-native species (Rock Pigeon, European Starling, and House Sparrow) were 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, European Starling, and Red-winged Blackbird were the most commonly detected species (Figure 17).

The park-wide avian forest scorecard for both years combined at SAIR resulted in five categories ranked as “Caution” and eight ranked as “Significant Concern” (Table 11). These results are not surprising considering the heavily urbanized location of this small park and the fact that the scorecard was developed to assess the breeding bird community of interior forests.



Saugus Iron Works National Historic Site

● Bird Monitoring Point Count Locations

0 125 Meters



Figure 16. Point count locations at Saugus Iron Works National Historic Site.

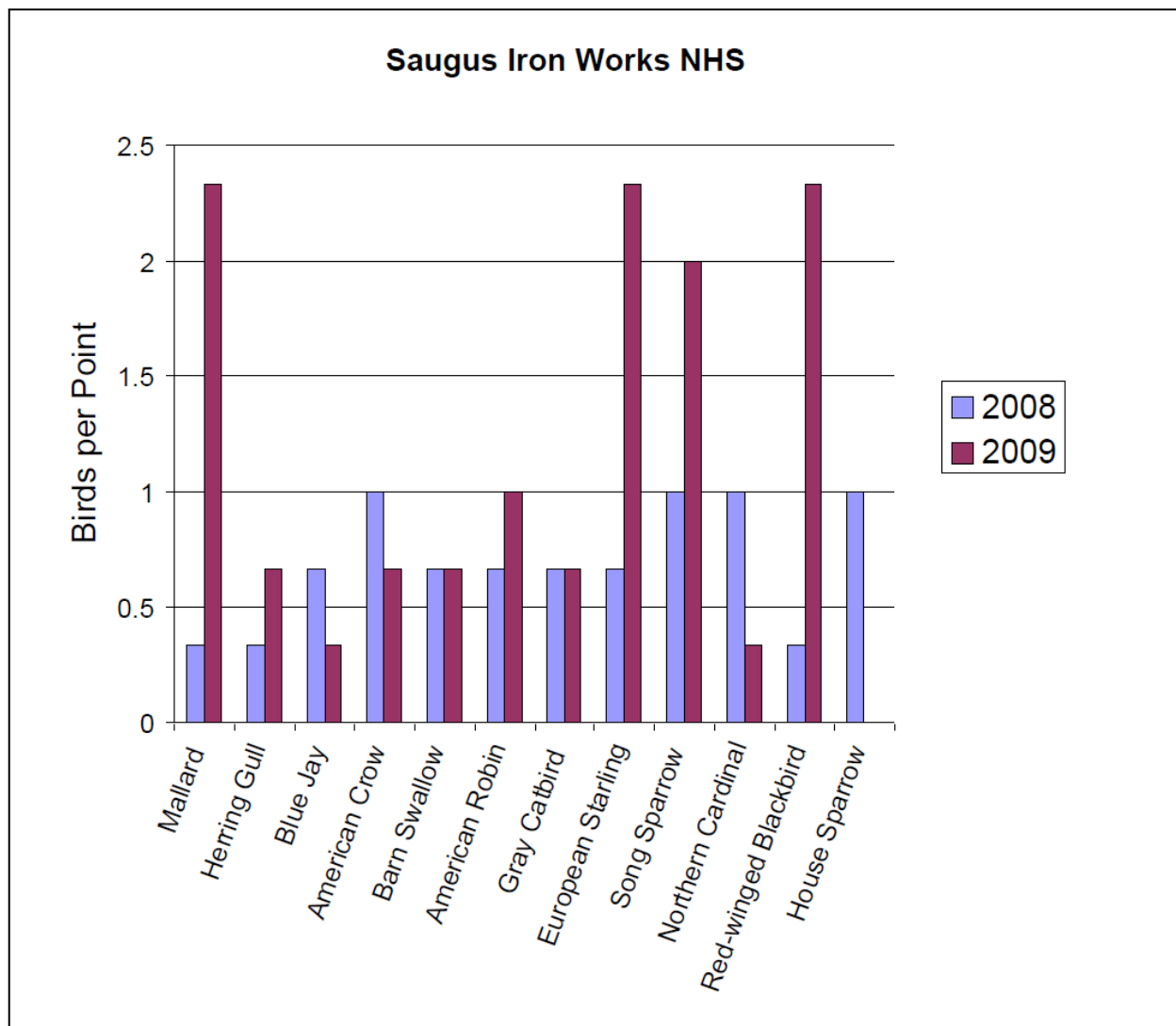


Figure 17. Relative abundance of the 10 most common species detected at Saugus Iron Works National Historic Site, 2008-2009.

Table 11. Avian forest scorecard for Saugus Iron Works National Historic Site, 2008-2009.

Saugus Iron Works NHS		2008 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	9%	Sig Concern
	Nest Predator / Brood Parasite	11%	Caution
	Resident	34%	Caution
	Single Brooded	23%	Sig Concern
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	3%	Sig Concern
	Ground Gleaner	3%	Sig Concern
	High Canopy Forager	3%	Sig Concern
	Low Canopy Forager	14%	Caution
	Omnivore	37%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	11%	Sig Concern
	Forest-ground Nester	0%	Sig Concern
	Interior Forest Obligate	0%	Sig Concern
	Shrub Nester	20%	Caution

Saratoga National Historical Park (New York)

A total of six study sites consisting of 51 point count locations were established in 2006 and 2007 at the Saratoga National Historical Park (SARA). Three of these sites (25 points) are in grassland habitat, and three (26 points) are in forested habitat (Figure 18). Point count surveys were initiated in 2006 when 35 points were sampled (three grassland sites, one forest). In 2007, 20 point count locations at two sites (Middle Ravine and Freeman Farm Grassland) were surveyed; in 2008 all sites were sampled; and in 2009, 41 point count locations at five sites were surveyed (two forest, three grassland).

During the four survey years a total of 2,338 individual birds of 82 species have been detected at SARA, with a mean abundance of 15.85 birds per point. During 2009, relative abundance remained the same, while species richness declined from 64 in 2008 to 57, despite three new species being detected (Turkey Vulture, American Woodcock, and Northern Mockingbird). Eight species of conservation concern were recorded during the surveys: Black-Billed Cuckoo, Eastern Wood-Pewee, Wood Thrush, Blue-winged Warbler, Golden-winged Warbler, Eastern Towhee, Field Sparrow, and Baltimore Oriole. A list of species, their relative abundances, and other summary statistics are provided in Appendices A and B. Red-winged Blackbird, Song Sparrow, and Ovenbird were among the most commonly detected species (Figure 19).

The park-wide avian forest scorecard for all years combined at SARA resulted in four categories ranked as “Good”, five ranked as “Caution”, and four ranked as “Significant Concern” (Table 12). With the exception of single-brooded (which earned a “Significant Concern” rating), compositional metrics were rated “Good”, while structural and functional metrics were dominated by “Caution” or “Significant Concern”. These results indicate 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. The forest scorecard has also been calculated for each forest site, and these results are in Appendix C.

The avian grassland scorecard consisted of four “Caution” ratings (Table 13). This community is 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 avian diversity. The grassland scorecard has also been calculated for each grassland site, and these results are in Appendix D.

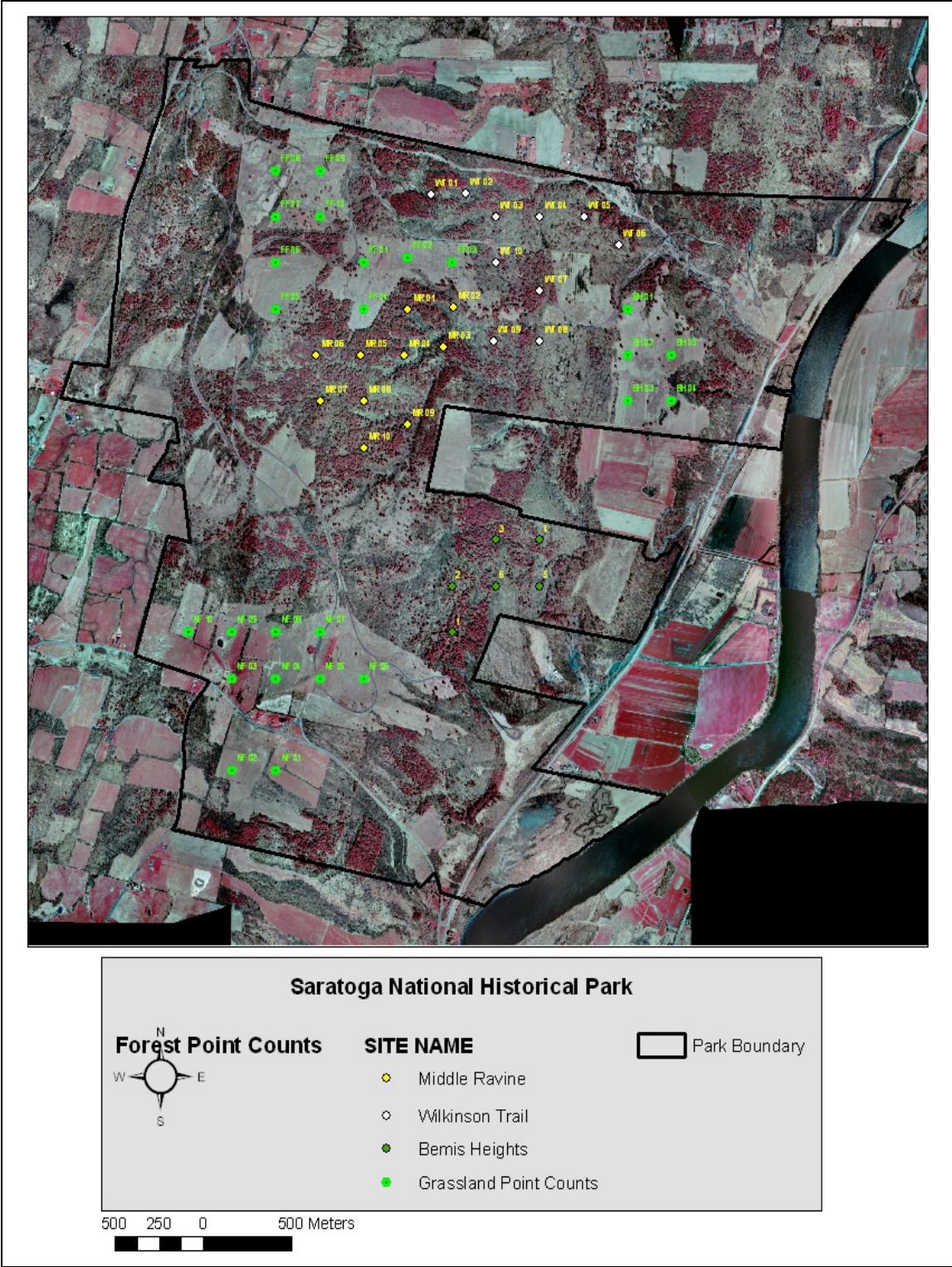


Figure 18. Point count locations at Saratoga National Historical Park.

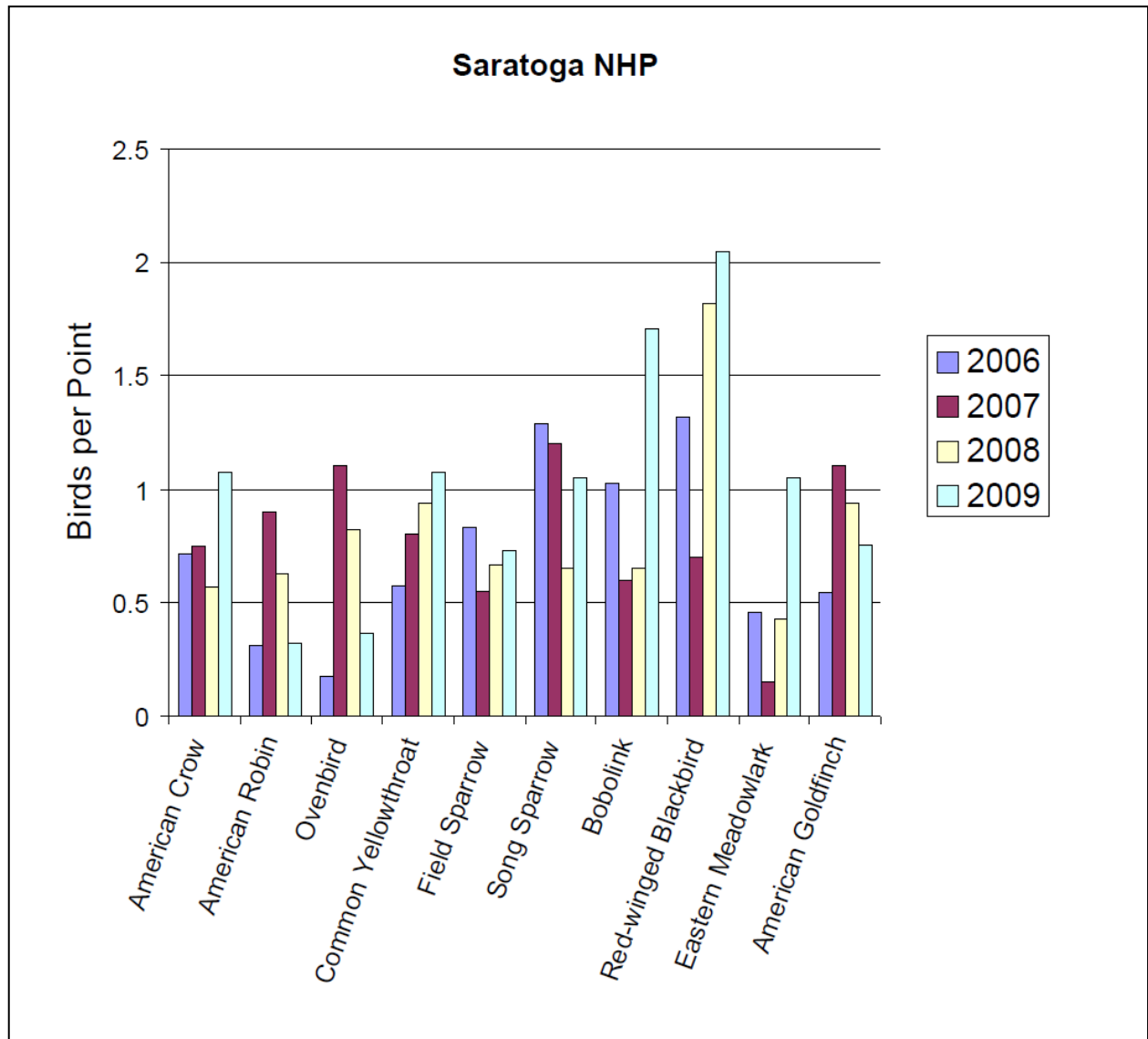


Figure 19. Relative abundance of the 10 most common species detected at Saratoga National Historical Park, 2006-2009.

Table 12. Avian forest scorecard for Saratoga National Historical Park, 2006-2009.

Saratoga NHP		2006 to 2009	
Integrity Element:	<i>Compositional</i>		
	Response Guild	Percentage	Rating
	Exotic	0%	Good
	Nest Predator / Brood Parasite	5%	Good
	Resident	26%	Good
	Single Brooded	49%	Sig Concern
Integrity Element:	<i>Functional</i>		
	Response Guild	Percentage	Rating
	Bark Prober	14%	Good
	Ground Gleaner	7%	Caution
	High Canopy Forager	5%	Sig Concern
	Low Canopy Forager	18%	Caution
	Omnivore	35%	Caution
Integrity Element:	<i>Structural</i>		
	Response Guild	Percentage	Rating
	Canopy Nester	25%	Sig Concern
	Forest-ground Nester	12%	Caution
	Interior Forest Obligate	26%	Caution
	Shrub Nester	25%	Sig Concern

Table 13. Avian grassland scorecard for Saratoga National Historical Park, 2006-2009.

Saratoga NHP		2006 to 2009	
	Response Guild	Proportion	Rating
	Edge Generalist	25%	Caution
	Exotic	1%	Caution
	Grassland Obligate	5%	Caution
	Shrub-dependent	14%	Caution

Vanderbilt Mansion National Historic Site (New York)

The Roosevelt-Vanderbilt National Historic Sites (ROVA) consist of three separate park units at which study sites were established and surveyed annually since 2006. Seven point count locations were established at the Vanderbilt Mansion National Historic Site (VAMA) (Figure 20).

Fifty-five individual birds were detected in 2009, compared to 43 birds in 2008, 63 in 2007, and 58 in 2006. In total, 30 species were recorded, and there was an average abundance of 7.82 birds per point. In 2009, relative abundance increased over 2008, while species richness declined. Four species of conservation concern, Black-billed Cuckoo, Eastern Wood-Pewee, Wood Thrush, and Worm-Eating Warbler, were detected during the four survey years. A list of species, their relative abundances, and other summary statistics are provided in Appendix A. Red-Eyed Vireo, Wood Thrush, and Northern Cardinal were the most commonly detected species (Figure 21).

The park-wide avian forest scorecard for all years combined at VAMA resulted in three categories ranked as “Good”, six ranked as “Caution”, and four ranked as “Significant Concern” (Table 14). Guilds within the structural category earned no “Good” rankings, while “Significant Concern” ratings for metrics measuring abundance of canopy and single-brooded species is indicative of the park’s location within a fragmented landscape.

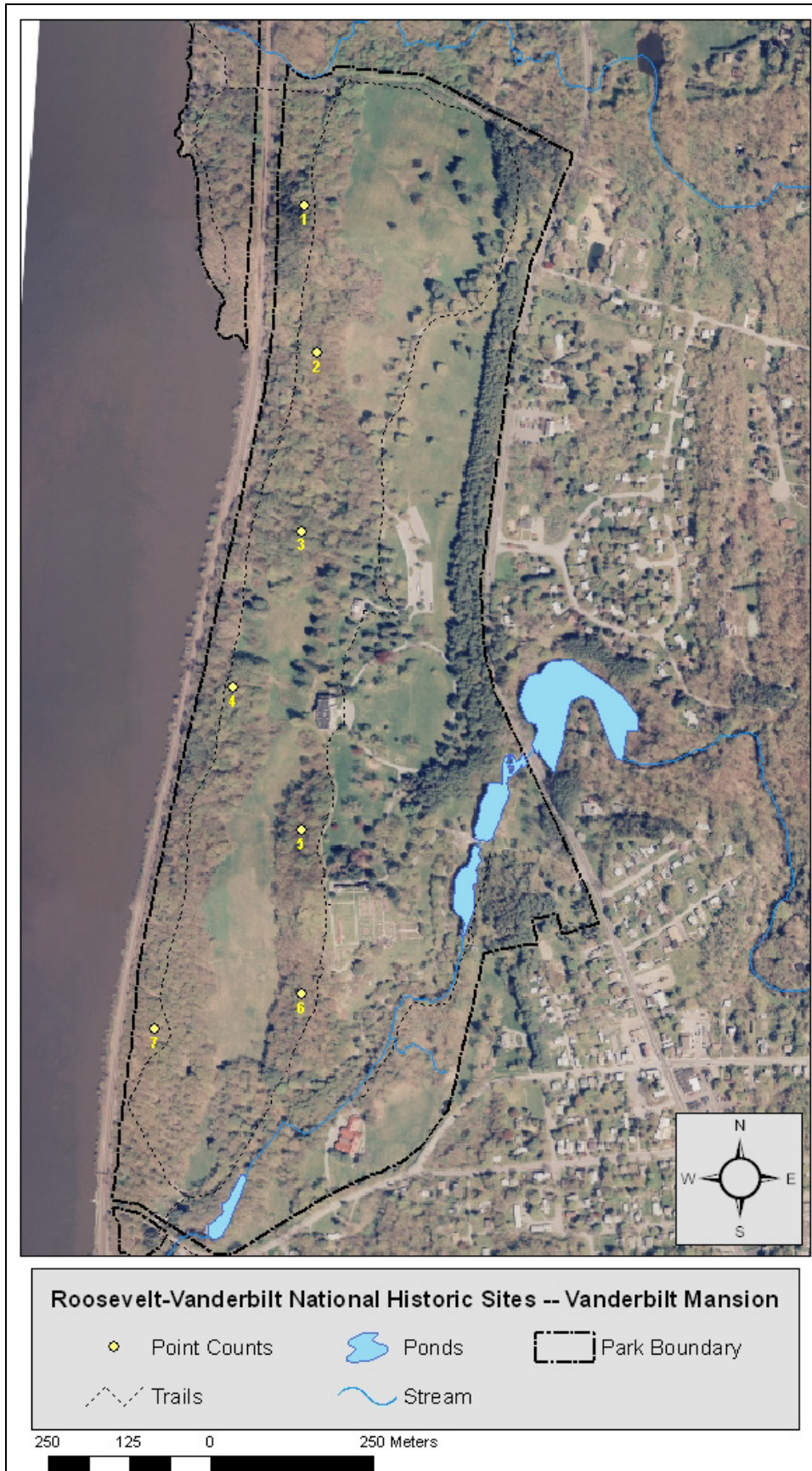


Figure 20. Point count locations at Vanderbilt Mansion National Historic Site.

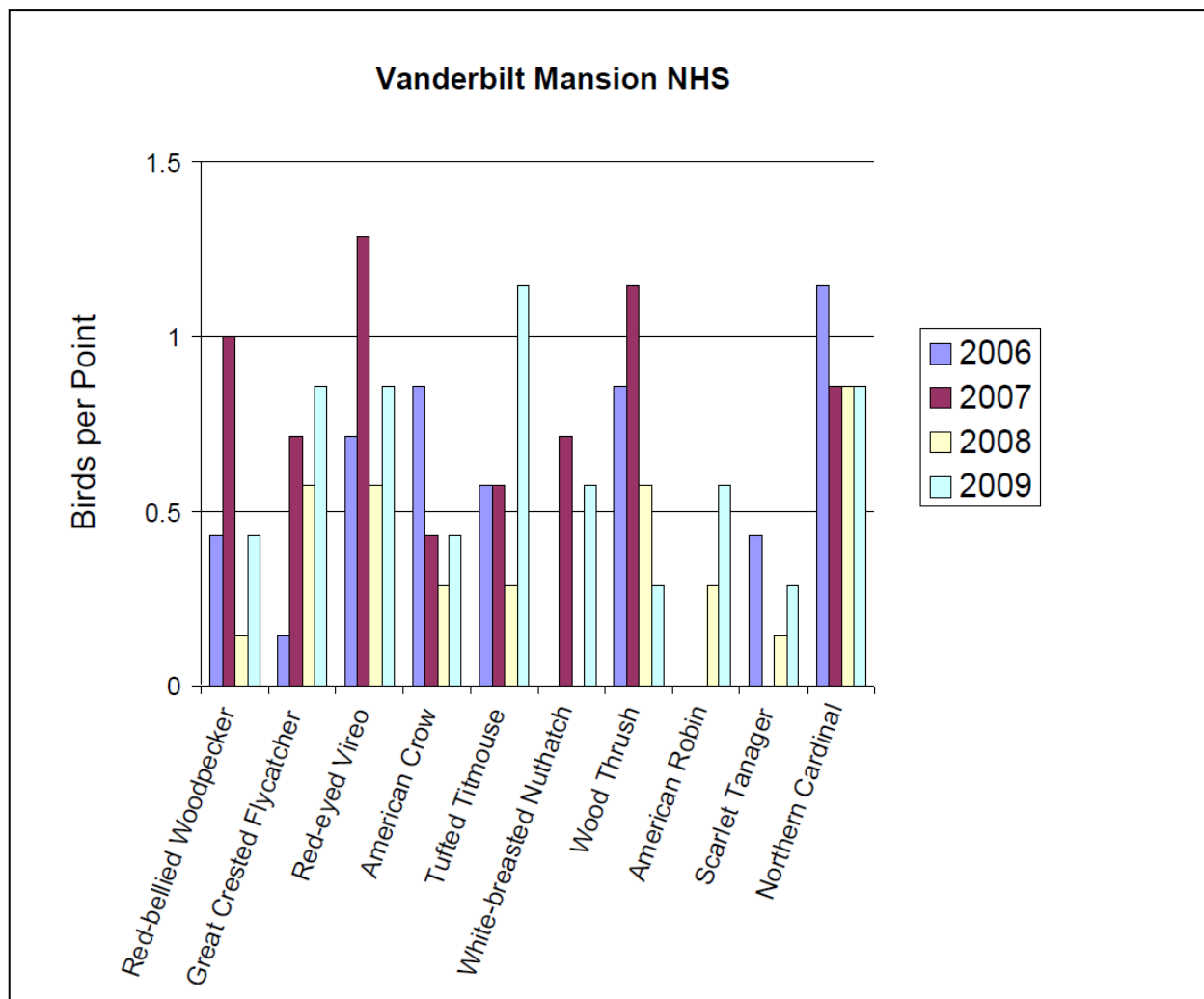


Figure 21. Relative abundance of the 10 most common species detected at Vanderbilt Mansion National Historic Site, 2006-2009.

Table 14. Avian forest scorecard for Vanderbilt Mansion National Historical Site, 2006-2009.

Vanderbilt Mansion NHS		2006 to 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	10%	Caution
	Resident	40%	Caution
	Single Brooded	40%	Sig Concern
<i>Integrity Element:</i>	<i>Functional</i>		
	<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	20%	Caution
	Omnivore	30%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	27%	Sig Concern
	Forest-ground Nester	7%	Caution
	Interior Forest Obligate	23%	Caution
	Shrub Nester	27%	Sig Concern

Weir Farm National Historic Site (Connecticut)

Five point count locations were established at Weir Farm National Historic Site in 2006 (Figure 22). A volunteer conducted two surveys in June 2006, but was unable to continue in subsequent years. In 2009, a new observer completed two surveys at the park.

Including repeat surveys, 61 individual birds of 21 species were detected in 2009, compared to 91 individuals of 21 species in 2006. In total, 33 species were recorded, including four that were only observed during repeat surveys (American Goldfinch, Black-throated Green Warbler, Louisiana Waterthrush, and Chipping Sparrow). Excluding repeat surveys (which could bias the abundance estimate), there was an average abundance of 6.20 birds per point. In 2009, relative abundance during the first survey remained the same, while species richness increased by one. It should be noted that the observation of a Blackpoll Warbler during the first survey in 2009 probably represented a late migrant, as the species' breeding range does not extend into southern CT. Four species of conservation concern, Eastern Wood-Pewee, Wood Thrush, Scarlet Tanager, and Baltimore Oriole, were detected during the two survey years. A list of species, their relative abundances, and other summary statistics are provided in Appendix A. Tufted Titmouse, American Crow, and Northern Cardinal were the most commonly detected species (Figure 23).

The park-wide avian forest scorecard for all years combined at WEFA resulted in three categories ranked as "Good", eight ranked as "Caution", and two ranked as "Significant Concern" (Table 15). Guilds within the structural category earned no "Good" rankings, while "Significant Concern" ratings reflected low abundance of canopy species, and high abundance of shrub nesting species, indicative of the park's location within a suburban, fragmented landscape.

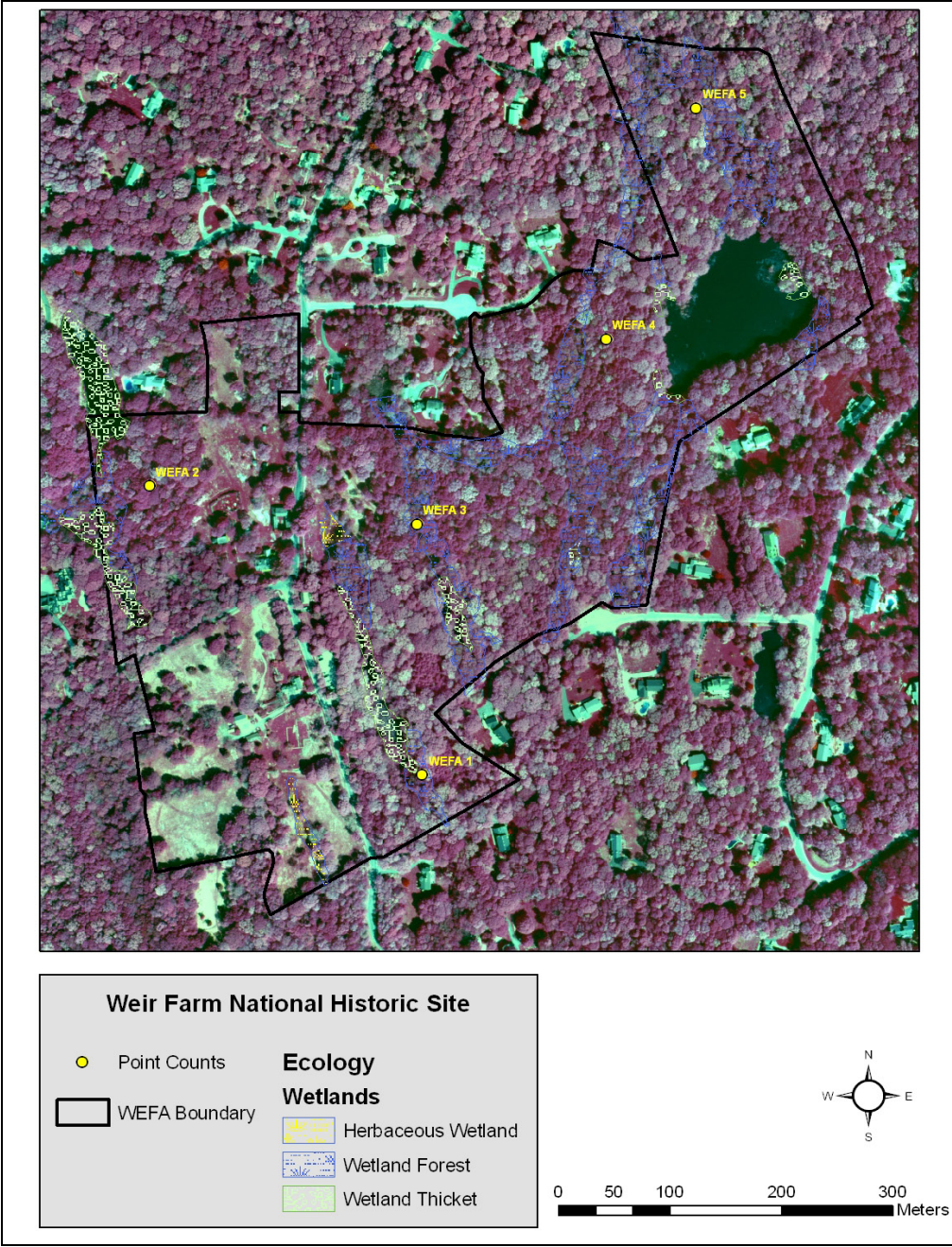


Figure 22. Point count locations at Weir Farm National Historic Site.

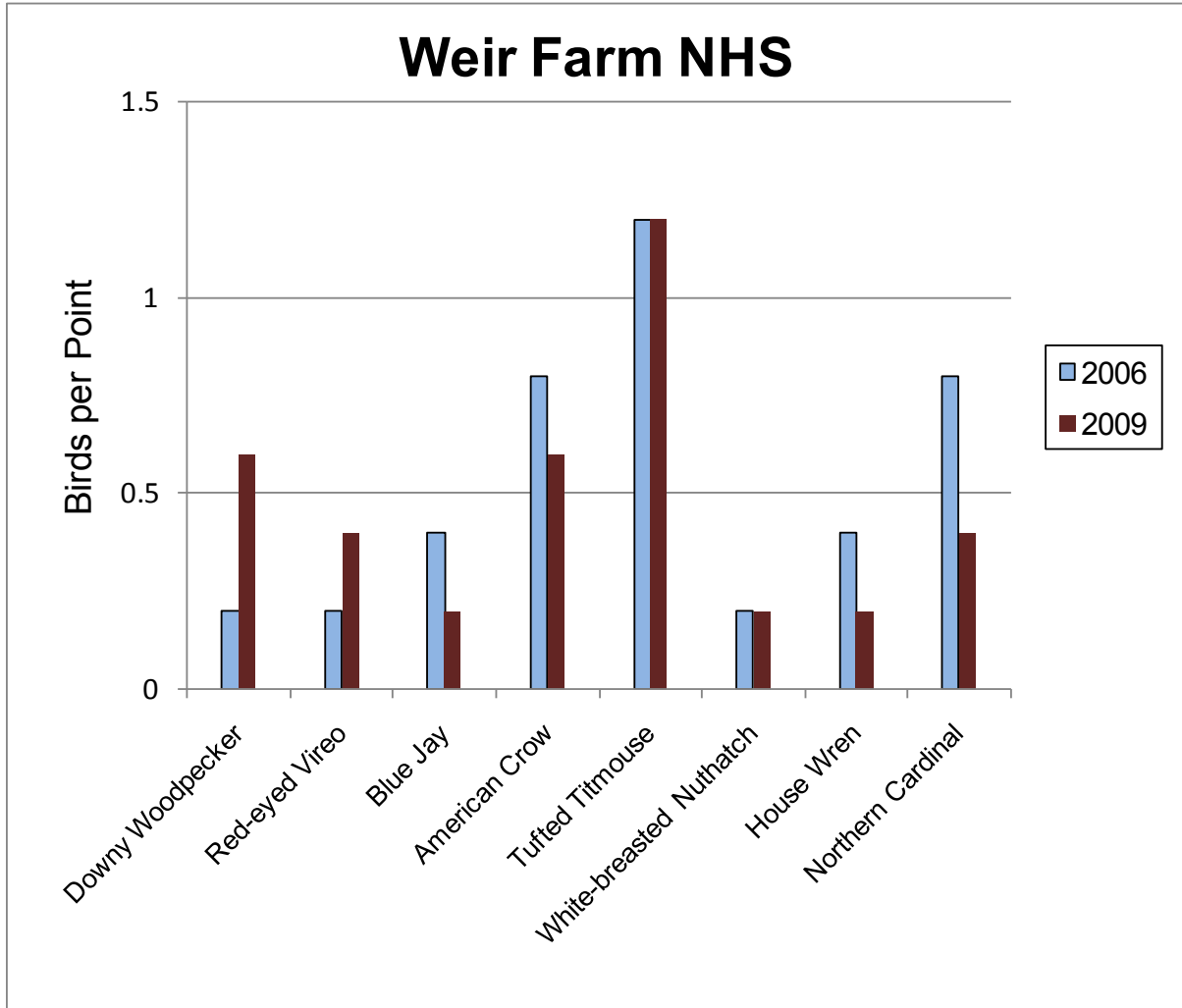


Figure 23. Relative abundance of the eight most common species detected at Weir Farm National Historic Site, 2006 and 2009.

Table 15. Avian forest scorecard for Weir Farm National Historic Site, 2006 and 2009.

Weir Farm NHS		2006 and 2009	
<i>Integrity Element:</i>	<i>Compositional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Exotic	0%	Good
	Nest Predator / Brood Parasite	6%	Good
	Resident	30%	Caution
	Single Brooded	52%	Caution
<i>Integrity Element:</i>	<i>Functional</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Bark Prober	9%	Caution
	Ground Gleaner	6%	Caution
	High Canopy Forager	15%	Good
	Low Canopy Forager	18%	Caution
	Omnivore	36%	Caution
<i>Integrity Element:</i>	<i>Structural</i>		
	<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
	Canopy Nester	27%	Sig Concern
	Forest-ground Nester	6%	Caution
	Interior Forest Obligate	21%	Caution
	Shrub Nester	27%	Sig Concern

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Appendix A. Park Summaries.

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

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

Appendix A. Park Summaries (continued).

Acadia NP

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Common Loon		0.00	0.04	0.03	0.02
Herring Gull		0.04	0.00	0.00	0.01
<i>Mourning Dove</i>		<i>0.64</i>	<i>0.61</i>	<i>0.33</i>	<i>0.53</i>
Downy Woodpecker		0.00	0.00	0.05	0.02
Hairy Woodpecker		0.21	0.00	0.10	0.11
Northern Flicker (Yellow-shafted Flicker)		0.00	0.00	0.03	0.01
Pileated Woodpecker		0.18	0.09	0.03	0.10
Eastern Wood-Pewee		0.00	0.00	0.15	0.05
Alder Flycatcher		0.04	0.00	0.00	0.01
Least Flycatcher		0.14	0.09	0.15	0.13
Eastern Phoebe		0.00	0.00	0.05	0.02
Great Crested Flycatcher		0.04	0.00	0.21	0.08
<i>Blue-headed Vireo</i>		<i>0.36</i>	<i>0.61</i>	<i>0.41</i>	<i>0.46</i>
Red-eyed Vireo		0.00	0.04	0.38	0.14
Blue Jay		0.18	0.17	0.51	0.29
<i>American Crow</i>		<i>0.39</i>	<i>0.48</i>	<i>0.23</i>	<i>0.37</i>
Common Raven		0.32	0.09	0.23	0.21
<i>Black-capped Chickadee</i>		<i>0.14</i>	<i>0.35</i>	<i>0.69</i>	<i>0.39</i>
Boreal Chickadee		0.21	0.00	0.00	0.07
<i>Red-breasted Nuthatch</i>		<i>0.50</i>	<i>0.26</i>	<i>0.28</i>	<i>0.35</i>
Brown Creeper		0.07	0.35	0.15	0.19
Winter Wren		0.25	0.22	0.03	0.16
<i>Golden-crowned Kinglet</i>		<i>0.36</i>	<i>0.83</i>	<i>0.28</i>	<i>0.49</i>
Ruby-crowned Kinglet		0.07	0.00	0.00	0.02
Veery		0.00	0.00	0.03	0.01
Swainson's Thrush		0.14	0.04	0.03	0.07
<i>Hermit Thrush</i>		<i>0.36</i>	<i>0.04</i>	<i>1.00</i>	<i>0.47</i>
Wood Thrush		0.04	0.00	0.00	0.01
<i>American Robin</i>		<i>0.46</i>	<i>0.30</i>	<i>0.28</i>	<i>0.35</i>
Brown Thrasher		0.04	0.00	0.00	0.01
Cedar Waxwing		0.11	0.04	0.10	0.08
Nashville Warbler		0.00	0.00	0.03	0.01
Northern Parula		0.04	0.00	0.00	0.01
Chestnut-sided Warbler		0.07	0.00	0.00	0.02
Magnolia Warbler		0.14	0.17	0.00	0.11
Black-throated Blue Warbler		0.07	0.30	0.31	0.23
Yellow-rumped Warbler (Myrtle Warbler)		0.11	0.30	0.59	0.33
<i>Black-throated Green Warbler</i>		<i>1.75</i>	<i>1.87</i>	<i>1.49</i>	<i>1.70</i>
Blackburnian Warbler		0.29	0.39	0.18	0.29
Blackpoll Warbler		0.00	0.04	0.00	0.01
Black-and-white Warbler		0.14	0.04	0.28	0.16
<i>Ovenbird</i>		<i>0.68</i>	<i>1.43</i>	<i>1.41</i>	<i>1.17</i>
Common Yellowthroat		0.00	0.04	0.00	0.01
Eastern Towhee		0.04	0.00	0.00	0.01
Swamp Sparrow		0.00	0.00	0.05	0.02
Dark-eyed Junco (Slate-colored Junco)		0.21	0.17	0.33	0.24

Appendix A. Park Summaries (continued).

Red-winged Blackbird	0.04	0.09	0.03	0.05
Common Grackle	0.04	0.00	0.00	0.01
Purple Finch	0.18	0.13	0.13	0.15
Pine Siskin	0.29	0.65	0.05	0.33
American Goldfinch	0.00	0.00	0.05	0.02
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<i>Points Surveyed:</i>	28	23	39	
<i>Ave # Birds Per Point:</i>	9.36	10.30	10.69	10.12
<i>Species Richness:</i>	39	31	38	51
<i>Shannon Diversity:</i>	3.17	2.89	3.07	
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Appendix A. Park Summaries (continued).

Eleanor Roosevelt NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.00	0.00	0.00	0.09	0.02
Wood Duck	0.00	0.00	0.00	0.09	0.02
Cooper's Hawk	0.00	0.09	0.00	0.00	0.02
Red-shouldered Hawk	0.00	0.00	0.00	0.18	0.05
Mourning Dove	0.00	0.27	0.00	0.27	0.14
Yellow-billed Cuckoo	0.17	0.00	0.00	0.00	0.04
Barred Owl	0.00	0.09	0.00	0.00	0.02
Ruby-throated Hummingbird	0.00	0.00	0.09	0.00	0.02
<i>Red-bellied Woodpecker</i>	<i>0.83</i>	<i>0.55</i>	<i>0.36</i>	<i>0.18</i>	<i>0.48</i>
Downy Woodpecker	0.33	0.00	0.18	0.45	0.24
Hairy Woodpecker	0.33	0.18	0.36	0.00	0.22
Northern Flicker (Yellow-shafted Flicker)	0.00	0.00	0.18	0.00	0.05
Pileated Woodpecker	0.17	0.09	0.27	0.00	0.13
Eastern Wood-Pewee	0.00	0.27	0.09	0.36	0.18
Great Crested Flycatcher	0.00	0.09	0.09	0.27	0.11
Yellow-throated Vireo	0.17	0.00	0.00	0.00	0.04
<i>Red-eyed Vireo</i>	<i>1.17</i>	<i>0.91</i>	<i>0.64</i>	<i>1.00</i>	<i>0.93</i>
Blue Jay	0.33	0.27	0.27	0.27	0.29
<i>American Crow</i>	<i>0.83</i>	<i>0.45</i>	<i>0.36</i>	<i>0.82</i>	<i>0.62</i>
Black-capped Chickadee	0.00	0.00	0.09	0.09	0.05
<i>Tufted Titmouse</i>	<i>0.50</i>	<i>1.27</i>	<i>0.27</i>	<i>0.64</i>	<i>0.67</i>
<i>White-breasted Nuthatch</i>	<i>0.17</i>	<i>0.45</i>	<i>0.82</i>	<i>0.18</i>	<i>0.41</i>
Brown Creeper	0.00	0.09	0.00	0.00	0.02
Eastern Bluebird	0.00	0.00	0.00	0.09	0.02
Veery	0.50	0.27	0.27	0.09	0.28
Wood Thrush	1.83	1.27	0.55	0.82	1.12
<i>American Robin</i>	<i>0.67</i>	<i>0.73</i>	<i>0.73</i>	<i>0.45</i>	<i>0.64</i>
Gray Catbird	0.17	0.36	0.36	0.18	0.27
Worm-eating Warbler	0.33	0.09	0.00	0.18	0.15
<i>Ovenbird</i>	<i>0.50</i>	<i>0.36</i>	<i>0.45</i>	<i>0.27</i>	<i>0.40</i>
Louisiana Waterthrush	0.00	0.00	0.00	0.09	0.02
<i>Scarlet Tanager</i>	<i>1.00</i>	<i>0.09</i>	<i>0.36</i>	<i>0.27</i>	<i>0.43</i>
Song Sparrow	0.00	0.09	0.00	0.00	0.02
<i>Northern Cardinal</i>	<i>0.50</i>	<i>1.09</i>	<i>0.45</i>	<i>1.00</i>	<i>0.76</i>
Rose-breasted Grosbeak	0.00	0.36	0.00	0.00	0.09
Red-winged Blackbird	0.00	0.18	0.00	0.09	0.07
Common Grackle	0.00	0.09	0.00	0.00	0.02
Baltimore Oriole	0.00	0.09	0.09	0.00	0.05
American Goldfinch	0.00	0.09	0.09	0.00	0.05
<i>Points Surveyed:</i>	6	11	11	11	
<i>Ave # Birds Per Point:</i>	10.50	10.27	7.45	8.45	9.17
<i>Species Richness:</i>	19	28	23	25	39
<i>Shannon Diversity:</i>	2.70	2.93	2.94	2.91	

Appendix A. Park Summaries (continued).

Home of Franklin D. Roosevelt NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Canada Goose	0.00	0.08	0.00		0.03
Mute Swan	0.00	0.00	0.08		0.03
Wild Turkey	0.08	0.08	0.00		0.06
Red-tailed Hawk	0.00	0.08	0.00		0.03
<i>Mourning Dove</i>	<i>0.00</i>	<i>0.33</i>	<i>0.50</i>		<i>0.28</i>
Yellow-billed Cuckoo	0.00	0.08	0.00		0.03
<i>Red-bellied Woodpecker</i>	<i>0.25</i>	<i>0.58</i>	<i>0.50</i>		<i>0.44</i>
Downy Woodpecker	0.17	0.17	0.17		0.17
Hairy Woodpecker	0.08	0.00	0.00		0.03
Northern Flicker (Yellow-shafted Flicker)	0.25	0.00	0.25		0.17
Pileated Woodpecker	0.00	0.25	0.08		0.11
Eastern Wood-Pewee	0.17	0.17	0.17		0.17
Least Flycatcher	0.00	0.08	0.00		0.03
Great Crested Flycatcher	0.25	0.33	0.00		0.19
Yellow-throated Vireo	0.00	0.00	0.08		0.03
Blue-headed Vireo	0.00	0.08	0.00		0.03
<i>Red-eyed Vireo</i>	<i>0.75</i>	<i>0.67</i>	<i>0.58</i>		<i>0.67</i>
<i>Blue Jay</i>	<i>0.33</i>	<i>0.42</i>	<i>0.42</i>		<i>0.39</i>
American Crow	0.33	0.00	0.25		0.19
Fish Crow	0.08	0.08	0.08		0.08
Black-capped Chickadee	0.25	0.33	0.17		0.25
<i>Tufted Titmouse</i>	<i>0.83</i>	<i>1.08</i>	<i>0.92</i>		<i>0.94</i>
<i>White-breasted Nuthatch</i>	<i>0.42</i>	<i>0.33</i>	<i>0.50</i>		<i>0.42</i>
Brown Creeper	0.08	0.00	0.08		0.06
Carolina Wren	0.00	0.00	0.17		0.06
Blue-gray Gnatcatcher	0.00	0.08	0.00		0.03
Wood Thrush	1.33	0.58	0.58		0.83
<i>American Robin</i>	<i>0.33</i>	<i>0.67</i>	<i>0.42</i>		<i>0.47</i>
Ovenbird	0.08	0.00	0.08		0.06
Louisiana Waterthrush	0.25	0.25	0.08		0.19
Mourning Warbler	0.08	0.00	0.00		0.03
Common Yellowthroat	0.08	0.00	0.00		0.03
<i>Scarlet Tanager</i>	<i>0.83</i>	<i>0.50</i>	<i>0.42</i>		<i>0.58</i>
<i>Northern Cardinal</i>	<i>0.25</i>	<i>0.25</i>	<i>0.33</i>		<i>0.28</i>
Rose-breasted Grosbeak	0.00	0.17	0.00		0.06
Red-winged Blackbird	0.08	0.25	0.00		0.11
Common Grackle	0.17	0.00	0.00		0.06
Brown-headed Cowbird	0.00	0.17	0.00		0.06
Baltimore Oriole	0.00	0.17	0.00		0.06
American Goldfinch	0.00	0.08	0.00		0.03
<i>Points Surveyed:</i>	12	12	12		
<i>Ave # Birds Per Point:</i>	7.83	8.42	6.92		7.72
<i>Species Richness:</i>	25	29	23		40
<i>Shannon Diversity:</i>	2.85	3.08	2.88		

Appendix A. Park Summaries (continued).

Marsh-Billings-Rockefeller NHP

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Wild Turkey	0.00	0.00	0.05	0.00	0.01
Broad-winged Hawk	0.05	0.00	0.00	0.00	0.01
Mourning Dove	0.15	0.16	0.15	0.16	0.16
Barred Owl	0.00	0.28	0.00	0.04	0.08
Chimney Swift	0.00	0.00	0.00	0.04	0.01
Yellow-bellied Sapsucker	0.15	0.32	0.20	0.20	0.22
Downy Woodpecker	0.20	0.12	0.00	0.08	0.10
Hairy Woodpecker	0.20	0.20	0.20	0.00	0.15
Northern Flicker (Yellow-shafted Flicker)	0.10	0.04	0.00	0.00	0.04
Pileated Woodpecker	0.10	0.04	0.00	0.08	0.06
<i>Eastern Wood-Pewee</i>	<i>0.75</i>	<i>0.72</i>	<i>0.55</i>	<i>0.52</i>	<i>0.64</i>
Least Flycatcher	0.05	0.12	0.05	0.00	0.06
Great Crested Flycatcher	0.10	0.04	0.25	0.08	0.12
Eastern Kingbird	0.00	0.04	0.00	0.00	0.01
Blue-headed Vireo	0.40	0.20	0.20	0.12	0.23
<i>Red-eyed Vireo</i>	<i>3.00</i>	<i>1.80</i>	<i>1.85</i>	<i>2.00</i>	<i>2.16</i>
<i>Blue Jay</i>	<i>0.70</i>	<i>0.84</i>	<i>0.40</i>	<i>0.56</i>	<i>0.63</i>
American Crow	0.25	0.36	0.15	0.20	0.24
Common Raven	0.10	0.00	0.05	0.00	0.04
<i>Black-capped Chickadee</i>	<i>0.40</i>	<i>0.84</i>	<i>0.50</i>	<i>0.56</i>	<i>0.58</i>
Tufted Titmouse	0.05	0.04	0.05	0.04	0.05
Red-breasted Nuthatch	0.05	0.08	0.00	0.04	0.04
White-breasted Nuthatch	0.40	0.32	0.10	0.36	0.30
<i>Brown Creeper</i>	<i>0.65</i>	<i>0.56</i>	<i>0.40</i>	<i>0.36</i>	<i>0.49</i>
Winter Wren	0.05	0.04	0.20	0.04	0.08
Golden-crowned Kinglet	0.05	0.04	0.05	0.00	0.04
Veery	0.15	0.12	0.10	0.00	0.09
<i>Hermit Thrush</i>	<i>0.65</i>	<i>0.72</i>	<i>1.05</i>	<i>0.96</i>	<i>0.85</i>
Wood Thrush	0.50	0.24	0.35	0.16	0.31
<i>American Robin</i>	<i>0.95</i>	<i>0.64</i>	<i>0.35</i>	<i>0.52</i>	<i>0.62</i>
Cedar Waxwing	0.00	0.04	0.05	0.00	0.02
Chestnut-sided Warbler	0.00	0.00	0.05	0.00	0.01
Black-throated Blue Warbler	0.20	0.24	0.15	0.28	0.22
Yellow-rumped Warbler (Myrtle Warbler)	0.10	0.08	0.05	0.08	0.08
<i>Black-throated Green Warbler</i>	<i>1.15</i>	<i>0.72</i>	<i>0.60</i>	<i>0.44</i>	<i>0.73</i>
<i>Blackburnian Warbler</i>	<i>0.90</i>	<i>0.68</i>	<i>0.50</i>	<i>0.68</i>	<i>0.69</i>
Pine Warbler	0.00	0.04	0.10	0.16	0.08
Black-and-white Warbler	0.15	0.08	0.00	0.00	0.06
American Redstart	0.05	0.04	0.00	0.04	0.03
<i>Ovenbird</i>	<i>4.20</i>	<i>3.36</i>	<i>3.45</i>	<i>3.52</i>	<i>3.63</i>
Louisiana Waterthrush	0.00	0.08	0.00	0.00	0.02
Mourning Warbler	0.00	0.00	0.00	0.04	0.01
Common Yellowthroat	0.10	0.12	0.20	0.08	0.13
Scarlet Tanager	0.30	0.56	0.25	0.56	0.42
Chipping Sparrow	0.15	0.04	0.00	0.04	0.06
Dark-eyed Junco (Slate-colored Junco)	0.30	0.44	0.05	0.16	0.24

Appendix A. Park Summaries (continued).

Rose-breasted Grosbeak	0.40	0.12	0.05	0.20	0.19
Indigo Bunting	0.00	0.20	0.10	0.00	0.08
Bobolink	0.05	0.04	0.00	0.00	0.02
Red-winged Blackbird	0.05	0.28	0.15	0.00	0.12
Common Grackle	0.00	0.04	0.00	0.00	0.01
Brown-headed Cowbird	0.05	0.08	0.05	0.04	0.06
Baltimore Oriole	0.05	0.00	0.00	0.00	0.01
Purple Finch	0.00	0.04	0.00	0.00	0.01
American Goldfinch	0.00	0.04	0.05	0.00	0.02
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<i>Points Surveyed:</i>	20	25	20	25	
<i>Ave # Birds Per Point:</i>	18.40	16.28	13.10	13.44	15.31
<i>Species Richness:</i>	42	48	38	35	55
<i>Shannon Diversity:</i>	2.91	3.12	2.84	2.76	
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Appendix A. Park Summaries (continued).

Minute Man NHP

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.00	0.04	0.00	0.00	0.01
Wild Turkey	0.09	0.00	0.00	0.00	0.02
Great Blue Heron	0.00	0.00	0.00	0.09	0.02
Red-tailed Hawk	0.00	0.00	0.00	0.13	0.03
Killdeer	0.04	0.00	0.00	0.00	0.01
Mourning Dove	0.09	0.00	0.09	0.00	0.04
Black-billed Cuckoo	0.00	0.00	0.04	0.00	0.01
Chimney Swift	0.00	0.09	0.00	0.00	0.02
Red-bellied Woodpecker	0.00	0.09	0.13	0.17	0.10
Downy Woodpecker	0.26	0.52	0.30	0.52	0.40
Hairy Woodpecker	0.04	0.17	0.00	0.04	0.07
Northern Flicker (Yellow-shafted Flicker)	0.09	0.00	0.13	0.09	0.08
Eastern Wood-Pewee	0.35	0.26	0.13	0.30	0.26
Alder Flycatcher	0.00	0.00	0.00	0.04	0.01
Eastern Phoebe	0.04	0.00	0.04	0.04	0.03
Great Crested Flycatcher	0.09	0.00	0.22	0.13	0.11
Eastern Kingbird	0.04	0.00	0.00	0.00	0.01
Warbling Vireo	0.04	0.00	0.04	0.13	0.05
Red-eyed Vireo	0.00	0.09	0.35	0.09	0.13
<i>Blue Jay</i>	<i>1.13</i>	<i>1.13</i>	<i>1.22</i>	<i>0.74</i>	<i>1.05</i>
<i>American Crow</i>	<i>0.61</i>	<i>0.74</i>	<i>0.83</i>	<i>0.87</i>	<i>0.76</i>
Barn Swallow	0.00	0.00	0.00	0.04	0.01
<i>Black-capped Chickadee</i>	<i>1.13</i>	<i>0.65</i>	<i>0.48</i>	<i>0.48</i>	<i>0.68</i>
<i>Tufted Titmouse</i>	<i>1.26</i>	<i>1.48</i>	<i>1.43</i>	<i>1.87</i>	<i>1.51</i>
White-breasted Nuthatch	0.43	0.39	0.13	0.65	0.40
Carolina Wren	0.13	0.17	0.00	0.04	0.09
House Wren	0.04	0.04	0.00	0.09	0.04
Blue-gray Gnatcatcher	0.00	0.00	0.00	0.04	0.01
Eastern Bluebird	0.00	0.00	0.00	0.04	0.01
Veery	0.04	0.13	0.00	0.00	0.04
Hermit Thrush	0.04	0.00	0.00	0.00	0.01
Wood Thrush	0.30	0.30	0.35	0.35	0.33
<i>American Robin</i>	<i>0.35</i>	<i>0.91</i>	<i>1.13</i>	<i>1.13</i>	<i>0.88</i>
<i>Gray Catbird</i>	<i>0.30</i>	<i>0.48</i>	<i>0.48</i>	<i>0.83</i>	<i>0.52</i>
Northern Mockingbird	0.00	0.09	0.00	0.09	0.04
Cedar Waxwing	0.09	0.04	0.00	0.26	0.10
Blue-winged Warbler	0.13	0.00	0.00	0.09	0.05
Yellow Warbler	0.04	0.00	0.13	0.09	0.07
Pine Warbler	0.26	0.30	0.39	0.74	0.42
American Redstart	0.00	0.04	0.00	0.04	0.02
Ovenbird	0.39	0.52	0.30	0.48	0.42
<i>Common Yellowthroat</i>	<i>0.43</i>	<i>0.43</i>	<i>0.35</i>	<i>0.65</i>	<i>0.47</i>
Scarlet Tanager	0.26	0.09	0.22	0.65	0.30
Chipping Sparrow	0.04	0.00	0.17	0.13	0.09
<i>Song Sparrow</i>	<i>0.65</i>	<i>0.61</i>	<i>0.48</i>	<i>0.48</i>	<i>0.55</i>
Swamp Sparrow	0.00	0.00	0.04	0.04	0.02

Appendix A. Park Summaries (continued).

<i>Northern Cardinal</i>	0.87	0.74	0.70	0.57	0.72
Rose-breasted Grosbeak	0.17	0.17	0.13	0.39	0.22
Indigo Bunting	0.04	0.13	0.13	0.04	0.09
<i>Red-winged Blackbird</i>	0.61	0.43	0.48	0.65	0.54
Common Grackle	0.35	0.13	0.09	0.52	0.27
Brown-headed Cowbird	0.17	0.48	0.13	0.30	0.27
Baltimore Oriole	0.13	0.13	0.00	0.26	0.13
House Finch	0.13	0.09	0.04	0.09	0.09
American Goldfinch	0.65	0.48	0.22	0.22	0.39
House Sparrow	0.04	0.13	0.04	0.04	0.07
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<i>Points Surveyed:</i>	23	23	23	23	
<i>Ave # Birds Per Point:</i>	12.43	12.74	11.57	15.78	13.13
<i>Species Richness:</i>	42	36	35	47	56
<i>Shannon Diversity:</i>	3.25	3.20	3.12	3.37	
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Appendix A. Park Summaries (continued).

Morristown NHP

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Wild Turkey	0.00	0.11	0.00	0.00	0.03
Turkey Vulture	0.05	0.00	0.00	0.00	0.01
Red-tailed Hawk	0.05	0.05	0.10	0.05	0.06
Mourning Dove	0.05	0.05	0.15	0.05	0.08
Yellow-billed Cuckoo	0.00	0.21	0.05	0.25	0.13
Great Horned Owl	0.00	0.00	0.10	0.15	0.06
<i>Red-bellied Woodpecker</i>	<i>0.53</i>	<i>0.26</i>	<i>0.90</i>	<i>0.70</i>	<i>0.60</i>
Downy Woodpecker	0.11	0.11	0.30	0.35	0.22
Hairy Woodpecker	0.00	0.00	0.25	0.20	0.11
Northern Flicker (Yellow-shafted Flicker)	0.21	0.53	0.25	0.25	0.31
Pileated Woodpecker	0.11	0.11	0.10	0.20	0.13
<i>Eastern Wood-Pewee</i>	<i>0.74</i>	<i>0.89</i>	<i>0.65</i>	<i>0.45</i>	<i>0.68</i>
Eastern Phoebe	0.00	0.05	0.05	0.00	0.03
Great Crested Flycatcher	0.05	0.05	0.20	0.10	0.10
Yellow-throated Vireo	0.05	0.11	0.05	0.00	0.05
<i>Red-eyed Vireo</i>	<i>1.11</i>	<i>1.00</i>	<i>0.35</i>	<i>0.45</i>	<i>0.73</i>
<i>Blue Jay</i>	<i>0.42</i>	<i>1.05</i>	<i>1.10</i>	<i>0.85</i>	<i>0.86</i>
American Crow	0.05	0.47	0.40	0.35	0.32
Black-capped Chickadee	0.05	0.05	0.05	0.00	0.04
<i>Tufted Titmouse</i>	<i>0.58</i>	<i>0.47</i>	<i>0.90</i>	<i>1.40</i>	<i>0.84</i>
White-breasted Nuthatch	0.16	0.26	0.60	0.40	0.36
Carolina Wren	0.00	0.11	0.00	0.00	0.03
House Wren	0.00	0.00	0.05	0.00	0.01
Blue-gray Gnatcatcher	0.00	0.00	0.00	0.10	0.03
Eastern Bluebird	0.00	0.00	0.15	0.00	0.04
<i>Veery</i>	<i>0.42</i>	<i>0.74</i>	<i>0.50</i>	<i>0.50</i>	<i>0.54</i>
Swainson's Thrush	0.05	0.00	0.00	0.05	0.03
Wood Thrush	1.21	1.58	1.20	1.25	1.31
<i>American Robin</i>	<i>0.84</i>	<i>1.05</i>	<i>0.95</i>	<i>1.05</i>	<i>0.97</i>
Gray Catbird	0.05	0.11	0.10	0.10	0.09
Cedar Waxwing	0.05	0.00	0.00	0.00	0.01
Blackpoll Warbler	0.26	0.00	0.00	0.00	0.07
Black-and-white Warbler	0.05	0.00	0.00	0.00	0.01
American Redstart	0.16	0.32	0.00	0.10	0.14
Worm-eating Warbler	0.00	0.21	0.20	0.05	0.12
<i>Ovenbird</i>	<i>0.84</i>	<i>1.11</i>	<i>0.50</i>	<i>0.40</i>	<i>0.71</i>
Louisiana Waterthrush	0.16	0.11	0.00	0.00	0.07
Kentucky Warbler	0.00	0.05	0.00	0.00	0.01
Hooded Warbler	0.16	0.21	0.00	0.00	0.09
Canada Warbler	0.05	0.00	0.00	0.00	0.01
<i>Scarlet Tanager</i>	<i>0.58</i>	<i>0.79</i>	<i>0.50</i>	<i>0.65</i>	<i>0.63</i>
Eastern Towhee	0.47	0.53	0.05	0.30	0.34
Chipping Sparrow	0.00	0.05	0.00	0.00	0.01
Northern Cardinal	0.16	0.47	0.10	0.40	0.28
Rose-breasted Grosbeak	0.05	0.21	0.10	0.05	0.10
Indigo Bunting	0.00	0.00	0.10	0.00	0.03

Appendix A. Park Summaries (continued).

Brown-headed Cowbird	0.11	0.16	0.00	0.05	0.08
Baltimore Oriole	0.47	0.11	0.30	0.10	0.24
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<i>Points Surveyed:</i>	19	19	20	20	
<i>Ave # Birds Per Point:</i>	10.47	13.74	11.35	11.35	11.73
<i>Species Richness:</i>	35	36	33	31	48
<i>Shannon Diversity:</i>	3.06	3.13	3.08	3.03	
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Appendix A. Park Summaries (continued).

Saint-Gaudens NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Mourning Dove		0.00	0.00	0.13	0.04
Belted Kingfisher		0.00	0.13	0.00	0.04
Yellow-bellied Sapsucker		0.25	0.00	0.00	0.08
Hairy Woodpecker		0.13	0.00	0.38	0.17
Northern Flicker (Yellow-shafted Flicker)		0.00	0.13	0.00	0.04
Pileated Woodpecker		0.38	0.00	0.25	0.21
<i>Eastern Wood-Pewee</i>		<i>0.63</i>	<i>0.63</i>	<i>0.88</i>	<i>0.71</i>
Willow Flycatcher		0.13	0.00	0.00	0.04
Least Flycatcher		0.13	0.25	0.00	0.13
Eastern Phoebe		0.00	0.13	0.00	0.04
Great Crested Flycatcher		0.00	0.00	0.13	0.04
Blue-headed Vireo		0.13	0.13	0.13	0.13
<i>Red-eyed Vireo</i>		<i>1.13</i>	<i>1.75</i>	<i>1.63</i>	<i>1.50</i>
<i>Blue Jay</i>		<i>0.50</i>	<i>0.50</i>	<i>0.00</i>	<i>0.33</i>
<i>American Crow</i>		<i>0.38</i>	<i>0.75</i>	<i>0.63</i>	<i>0.58</i>
<i>Black-capped Chickadee</i>		<i>0.63</i>	<i>0.13</i>	<i>0.38</i>	<i>0.38</i>
Tufted Titmouse		0.13	0.00	0.00	0.04
Red-breasted Nuthatch		0.00	0.00	0.25	0.08
White-breasted Nuthatch		0.00	0.00	0.25	0.08
Winter Wren		0.00	0.00	0.25	0.08
<i>Veery</i>		<i>0.38</i>	<i>1.38</i>	<i>0.50</i>	<i>0.75</i>
Hermit Thrush		0.00	0.13	0.25	0.13
Wood Thrush		0.38	0.25	0.13	0.25
<i>American Robin</i>		<i>0.13</i>	<i>0.50</i>	<i>0.50</i>	<i>0.38</i>
Gray Catbird		0.25	0.13	0.13	0.17
Yellow Warbler		0.13	0.00	0.25	0.13
Chestnut-sided Warbler		0.25	0.13	0.00	0.13
Magnolia Warbler		0.00	0.13	0.00	0.04
<i>Black-throated Green Warbler</i>		<i>0.50</i>	<i>0.38</i>	<i>1.00</i>	<i>0.63</i>
Pine Warbler		0.00	0.25	0.00	0.08
Black-and-white Warbler		0.25	0.13	0.00	0.13
American Redstart		0.25	0.00	0.25	0.17
<i>Ovenbird</i>		<i>1.50</i>	<i>2.00</i>	<i>1.88</i>	<i>1.79</i>
Northern Waterthrush		0.00	0.00	0.13	0.04
Louisiana Waterthrush		0.25	0.13	0.00	0.13
Common Yellowthroat		0.25	0.25	0.13	0.21
<i>Scarlet Tanager</i>		<i>0.38</i>	<i>0.88</i>	<i>0.38</i>	<i>0.54</i>
Song Sparrow		0.00	0.13	0.25	0.13
White-throated Sparrow		0.00	0.13	0.00	0.04
Rose-breasted Grosbeak		0.00	0.13	0.00	0.04
Red-winged Blackbird		0.25	0.25	0.38	0.29
Brown-headed Cowbird		0.25	0.00	0.00	0.08
Baltimore Oriole		0.13	0.13	0.00	0.08
American Goldfinch		0.00	0.25	0.25	0.17

Appendix A. Park Summaries (continued).

<i>Points Surveyed:</i>	8	8	8	
<i>Ave # Birds Per Point:</i>	10.00	12.13	11.63	11.25
<i>Species Richness:</i>	28	30	27	44
<i>Shannon Diversity:</i>	3.06	2.90	2.93	

Saugus Iron Works NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
<i>Mallard</i>			0.33	2.33	1.33
Black-crowned Night-Heron			0.00	0.33	0.17
<i>Herring Gull</i>			0.33	0.67	0.50
Rock Pigeon			0.33	0.33	0.33
Mourning Dove			0.33	0.00	0.17
Chimney Swift			0.00	0.67	0.33
Belted Kingfisher			0.33	0.00	0.17
Downy Woodpecker			0.67	0.00	0.33
Northern Flicker (Yellow-shafted Flicker)			0.33	0.00	0.17
Eastern Phoebe			0.00	0.67	0.33
Red-eyed Vireo			0.00	0.33	0.17
<i>Blue Jay</i>			0.67	0.33	0.50
<i>American Crow</i>			1.00	0.67	0.83
<i>Barn Swallow</i>			0.67	0.67	0.67
Tufted Titmouse			0.33	0.00	0.17
<i>American Robin</i>			0.67	1.00	0.83
<i>Gray Catbird</i>			0.67	0.67	0.67
<i>European Starling</i>			0.67	2.33	1.50
Common Yellowthroat			0.33	0.33	0.33
<i>Song Sparrow</i>			1.00	2.00	1.50
<i>Northern Cardinal</i>			1.00	0.33	0.67
<i>Red-winged Blackbird</i>			0.33	2.33	1.33
Common Grackle			0.33	0.33	0.33
Baltimore Oriole			0.33	0.33	0.33
American Goldfinch			0.00	0.33	0.17
<i>House Sparrow</i>			1.00	0.00	0.50
<i>Points Surveyed:</i>			3	3	
<i>Ave # Birds Per Point:</i>			11.67	17.00	14.33
<i>Species Richness:</i>			21	20	26
<i>Shannon Diversity:</i>			2.94	2.69	

Appendix A. Park Summaries (continued).

Saratoga NHP

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.20	0.05	0.08	0.00	0.08
Northern Bobwhite	0.03	0.00	0.00	0.00	0.01
Great Blue Heron	0.09	0.05	0.00	0.02	0.04
Turkey Vulture	0.00	0.00	0.00	0.02	0.01
Northern Harrier	0.03	0.00	0.00	0.00	0.01
Red-tailed Hawk	0.06	0.00	0.00	0.00	0.01
American Kestrel	0.11	0.00	0.04	0.05	0.05
American Woodcock	0.00	0.00	0.00	0.02	0.01
Mourning Dove	0.20	0.55	0.43	0.27	0.36
Black-billed Cuckoo	0.11	0.00	0.04	0.02	0.04
Yellow-billed Cuckoo	0.03	0.00	0.02	0.00	0.01
Ruby-throated Hummingbird	0.03	0.00	0.00	0.02	0.01
Red-bellied Woodpecker	0.20	0.00	0.04	0.05	0.07
Yellow-bellied Sapsucker	0.06	0.05	0.14	0.29	0.13
Downy Woodpecker	0.03	0.10	0.20	0.05	0.09
Hairy Woodpecker	0.06	0.00	0.00	0.00	0.01
Northern Flicker (Yellow-shafted Flicker)	0.14	0.15	0.04	0.02	0.09
Pileated Woodpecker	0.09	0.00	0.04	0.15	0.07
Eastern Wood-Pewee	0.11	0.30	0.59	0.41	0.35
Acadian Flycatcher	0.00	0.00	0.02	0.00	0.00
Alder Flycatcher	0.00	0.05	0.08	0.00	0.03
Willow Flycatcher	0.06	0.00	0.16	0.00	0.05
Least Flycatcher	0.00	0.00	0.08	0.02	0.03
Eastern Phoebe	0.00	0.05	0.08	0.02	0.04
Great Crested Flycatcher	0.14	0.55	0.35	0.22	0.32
Eastern Kingbird	0.46	0.10	0.16	0.29	0.25
Yellow-throated Vireo	0.00	0.05	0.02	0.00	0.02
Warbling Vireo	0.06	0.00	0.02	0.00	0.02
Red-eyed Vireo	0.11	0.50	0.49	0.22	0.33
Blue Jay	0.26	0.40	0.37	0.29	0.33
<i>American Crow</i>	<i>0.71</i>	<i>0.75</i>	<i>0.57</i>	<i>1.07</i>	<i>0.78</i>
Common Raven	0.03	0.00	0.00	0.00	0.01
Tree Swallow	0.29	0.40	0.20	0.05	0.23
Black-capped Chickadee	0.29	0.70	0.47	0.49	0.49
Tufted Titmouse	0.40	0.30	0.31	0.02	0.26
Red-breasted Nuthatch	0.00	0.00	0.04	0.00	0.01
White-breasted Nuthatch	0.11	0.15	0.06	0.17	0.12
Brown Creeper	0.00	0.05	0.14	0.07	0.07
House Wren	0.23	0.00	0.02	0.05	0.07
Winter Wren	0.00	0.05	0.00	0.00	0.01
Blue-gray Gnatcatcher	0.00	0.00	0.06	0.02	0.02
Eastern Bluebird	0.23	0.00	0.02	0.00	0.06
Veery	0.03	0.10	0.18	0.24	0.14
Hermit Thrush	0.00	0.05	0.10	0.20	0.09
Wood Thrush	0.11	0.50	0.39	0.17	0.29
<i>American Robin</i>	<i>0.31</i>	<i>0.90</i>	<i>0.63</i>	<i>0.32</i>	<i>0.54</i>

Appendix A. Park Summaries (continued).

Gray Catbird	0.14	0.05	0.16	0.17	0.13
Northern Mockingbird	0.00	0.00	0.00	0.02	0.01
Brown Thrasher	0.06	0.00	0.00	0.00	0.01
European Starling	0.46	0.00	0.00	0.17	0.16
Cedar Waxwing	0.57	0.60	0.22	0.22	0.40
Blue-winged Warbler	0.23	0.20	0.20	0.07	0.17
Golden-winged Warbler	0.00	0.10	0.00	0.00	0.03
Yellow Warbler	0.20	0.10	0.16	0.12	0.14
Chestnut-sided Warbler	0.06	0.10	0.20	0.02	0.09
Yellow-rumped Warbler (Myrtle Warbler)	0.00	0.00	0.04	0.00	0.01
Prairie Warbler	0.06	0.15	0.06	0.00	0.07
Black-and-white Warbler	0.00	0.00	0.04	0.02	0.02
American Redstart	0.09	0.05	0.00	0.00	0.03
<i>Ovenbird</i>	<i>0.17</i>	<i>1.10</i>	<i>0.82</i>	<i>0.37</i>	<i>0.62</i>
Northern Waterthrush	0.00	0.00	0.02	0.00	0.00
Louisiana Waterthrush	0.00	0.00	0.06	0.00	0.01
<i>Common Yellowthroat</i>	<i>0.57</i>	<i>0.80</i>	<i>0.94</i>	<i>1.07</i>	<i>0.85</i>
Scarlet Tanager	0.14	0.20	0.29	0.17	0.20
Eastern Towhee	0.14	0.30	0.27	0.22	0.23
American Tree Sparrow	0.00	0.00	0.00	0.02	0.01
Chipping Sparrow	0.29	0.45	0.27	0.32	0.33
Field Sparrow	0.83	0.55	0.67	0.73	0.69
Vesper Sparrow	0.00	0.00	0.06	0.00	0.01
Savannah Sparrow	0.06	0.00	0.04	0.05	0.04
<i>Song Sparrow</i>	<i>1.29</i>	<i>1.20</i>	<i>0.65</i>	<i>1.05</i>	<i>1.05</i>
Northern Cardinal	0.26	0.15	0.24	0.17	0.20
Rose-breasted Grosbeak	0.03	0.05	0.12	0.07	0.07
Indigo Bunting	0.03	0.00	0.06	0.00	0.02
<i>Bobolink</i>	<i>1.03</i>	<i>0.60</i>	<i>0.65</i>	<i>1.71</i>	<i>1.00</i>
<i>Red-winged Blackbird</i>	<i>1.31</i>	<i>0.70</i>	<i>1.82</i>	<i>2.05</i>	<i>1.47</i>
<i>Eastern Meadowlark</i>	<i>0.46</i>	<i>0.15</i>	<i>0.43</i>	<i>1.05</i>	<i>0.52</i>
Common Grackle	0.14	0.00	0.00	0.02	0.04
Brown-headed Cowbird	0.00	0.05	0.06	0.05	0.04
Orchard Oriole	0.09	0.00	0.00	0.02	0.03
Baltimore Oriole	0.29	0.25	0.16	0.17	0.22
Purple Finch	0.03	0.00	0.00	0.00	0.01
<i>American Goldfinch</i>	<i>0.54</i>	<i>1.10</i>	<i>0.94</i>	<i>0.76</i>	<i>0.84</i>
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<i>Points Surveyed:</i>	35	20	51	41	
<i>Ave # Birds Per Point:</i>	14.94	15.90	16.27	16.27	15.85
<i>Species Richness:</i>	62	48	64	58	83
<i>Shannon Diversity:</i>	3.62	3.44	3.61	3.33	
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Appendix A. Park Summaries (continued).

Vanderbilt Mansion NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.14	0.29	0.29	0.14	0.21
Mourning Dove	0.00	0.00	0.14	0.14	0.07
Black-billed Cuckoo	0.14	0.00	0.00	0.00	0.04
<i>Red-bellied Woodpecker</i>	<i>0.43</i>	<i>1.00</i>	<i>0.14</i>	<i>0.43</i>	<i>0.50</i>
Downy Woodpecker	0.29	0.14	0.14	0.00	0.14
Hairy Woodpecker	0.00	0.29	0.00	0.29	0.14
Northern Flicker (Yellow-shafted Flicker)	0.57	0.14	0.00	0.00	0.18
Pileated Woodpecker	0.14	0.00	0.14	0.00	0.07
Eastern Wood-Pewee	0.29	0.00	0.00	0.29	0.14
Eastern Phoebe	0.14	0.00	0.29	0.14	0.14
<i>Great Crested Flycatcher</i>	<i>0.14</i>	<i>0.71</i>	<i>0.57</i>	<i>0.86</i>	<i>0.57</i>
<i>Red-eyed Vireo</i>	<i>0.71</i>	<i>1.29</i>	<i>0.57</i>	<i>0.86</i>	<i>0.86</i>
Blue Jay	0.29	0.43	0.00	0.00	0.18
<i>American Crow</i>	<i>0.86</i>	<i>0.43</i>	<i>0.29</i>	<i>0.43</i>	<i>0.50</i>
Fish Crow	0.14	0.00	0.00	0.00	0.04
<i>Tufted Titmouse</i>	<i>0.57</i>	<i>0.57</i>	<i>0.29</i>	<i>1.14</i>	<i>0.64</i>
<i>White-breasted Nuthatch</i>	<i>0.00</i>	<i>0.71</i>	<i>0.00</i>	<i>0.57</i>	<i>0.32</i>
Carolina Wren	0.00	0.00	0.57	0.00	0.14
House Wren	0.00	0.14	0.14	0.00	0.07
Wood Thrush	0.86	1.14	0.57	0.29	0.71
<i>American Robin</i>	<i>0.00</i>	<i>0.00</i>	<i>0.29</i>	<i>0.57</i>	<i>0.21</i>
American Redstart	0.14	0.29	0.00	0.29	0.18
Worm-eating Warbler	0.00	0.29	0.14	0.14	0.14
Ovenbird	0.00	0.14	0.29	0.00	0.11
Common Yellowthroat	0.14	0.00	0.00	0.00	0.04
<i>Scarlet Tanager</i>	<i>0.43</i>	<i>0.00</i>	<i>0.14</i>	<i>0.29</i>	<i>0.21</i>
Chipping Sparrow	0.29	0.14	0.14	0.14	0.18
<i>Northern Cardinal</i>	<i>1.14</i>	<i>0.86</i>	<i>0.86</i>	<i>0.86</i>	<i>0.93</i>
Rose-breasted Grosbeak	0.14	0.00	0.00	0.00	0.04
Indigo Bunting	0.29	0.00	0.14	0.00	0.11
<i>Points Surveyed:</i>	7	7	7	7	
<i>Ave # Birds Per Point:</i>	8.29	9.00	6.14	7.86	7.82
<i>Species Richness:</i>	22	18	20	18	30
<i>Shannon Diversity:</i>	2.84	2.64	2.80	2.67	

Appendix A. Park Summaries (continued).

Weir Farm NHS

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
<i>Red-tailed Hawk</i>	0.00			0.20	0.10
<i>Red-bellied Woodpecker</i>	0.00			0.20	0.10
<i>Downy Woodpecker</i>	0.20			0.60	0.40
<i>Northern Flicker (Yellow-shafted Flicker)</i>	0.20			0.00	0.10
<i>Eastern Wood-Pewee</i>	0.00			0.40	0.20
<i>Eastern Phoebe</i>	0.20			0.00	0.10
<i>Great Crested Flycatcher</i>	0.20			0.00	0.10
<i>Yellow-throated Vireo</i>	0.20			0.00	0.10
<i>Warbling Vireo</i>	0.20			0.00	0.10
<i>Red-eyed Vireo</i>	0.20			0.40	0.30
<i>Blue Jay</i>	0.40			0.20	0.30
<i>American Crow</i>	0.80			0.60	0.70
<i>Black-capped Chickadee</i>	0.00			0.20	0.10
<i>Tufted Titmouse</i>	1.20			1.20	1.20
<i>White-breasted Nuthatch</i>	0.20			0.20	0.20
<i>Carolina Wren</i>	0.20			0.00	0.10
<i>House Wren</i>	0.40			0.20	0.30
<i>Wood Thrush</i>	0.00			0.20	0.10
<i>American Robin</i>	0.00			0.20	0.10
<i>Gray Catbird</i>	0.00			0.20	0.10
<i>Blackpoll Warbler</i>	0.00			0.20	0.10
<i>American Redstart</i>	0.20			0.00	0.10
<i>Ovenbird</i>	0.20			0.00	0.10
<i>Scarlet Tanager</i>	0.00			0.20	0.10
<i>Song Sparrow</i>	0.00			0.20	0.10
<i>Northern Cardinal</i>	0.80			0.40	0.60
<i>Red-winged Blackbird</i>	0.20			0.00	0.10
<i>Common Grackle</i>	0.00			0.20	0.10
<i>Baltimore Oriole</i>	0.20			0.00	0.10
<i>Points Surveyed:</i>	5			5	
<i>Ave # Birds Per Point:</i>	6.20			6.20	6.20
<i>Species Richness:</i>	18			19	29
<i>Shannon Diversity:</i>	2.64			2.74	

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 (average number of birds per point count location) of each species per year. It only includes data for the first survey of each point in a given year, in order to promote more consistent comparisons between years and to avoid artificially inflating abundances due to counting the same individuals in repeat visits. Species in boldface are of regional or continental concern, and species in italics are the 10 most common for each park. There will occasionally be more than 10 italicized species if multiple species have the same abundance.

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

Appendix B. Site Summaries (continued).

Acadia NP

ACAD Schoodic

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
<i>Hairy Woodpecker</i>		0.67			0.67
<i>Least Flycatcher</i>		0.17			0.17
<i>Great Crested Flycatcher</i>		0.17			0.17
<i>American Crow</i>		0.17			0.17
<i>Boreal Chickadee</i>		1.00			1.00
<i>Red-breasted Nuthatch</i>		0.17			0.17
<i>Ruby-crowned Kinglet</i>		0.33			0.33
<i>Hermit Thrush</i>		0.67			0.67
<i>Wood Thrush</i>		0.17			0.17
<i>American Robin</i>		0.33			0.33
<i>Chestnut-sided Warbler</i>		0.33			0.33
<i>Black-throated Blue Warbler</i>		0.33			0.33
<i>Yellow-rumped Warbler (Myrtle Warbler)</i>		0.17			0.17
<i>Black-throated Green Warbler</i>		1.00			1.00
<i>Black-and-white Warbler</i>		0.17			0.17
<i>Eastern Towhee</i>		0.17			0.17
<i>Dark-eyed Junco (Slate-colored Junco)</i>		0.33			0.33
	<i>Points Surveyed:</i>	6			
	<i>Ave # Birds Per Point:</i>	6.33			6.33
	<i>Species Richness:</i>	17			17
	<i>Shannon Diversity:</i>	2.60			

Appendix B. Site Summaries (continued).

Acadia NP

ACAD-Giant Slide Trail

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Common Loon		0.00	0.10	0.00	0.03
Mourning Dove		0.44	0.30	0.30	0.35
Hairy Woodpecker		0.11	0.00	0.00	0.04
Pileated Woodpecker		0.11	0.10	0.10	0.10
Alder Flycatcher		0.11	0.00	0.00	0.04
Least Flycatcher		0.00	0.00	0.20	0.07
<i>Blue-headed Vireo</i>		<i>0.78</i>	<i>0.50</i>	<i>0.60</i>	<i>0.63</i>
Blue Jay		0.44	0.10	0.50	0.35
American Crow		0.33	0.50	0.30	0.38
Common Raven		0.22	0.00	0.10	0.11
<i>Black-capped Chickadee</i>		<i>0.11</i>	<i>0.60</i>	<i>0.90</i>	<i>0.54</i>
<i>Red-breasted Nuthatch</i>		<i>0.67</i>	<i>0.40</i>	<i>0.60</i>	<i>0.56</i>
Brown Creeper		0.11	0.40	0.20	0.24
Winter Wren		0.22	0.10	0.00	0.11
<i>Golden-crowned Kinglet</i>		<i>0.67</i>	<i>1.40</i>	<i>0.70</i>	<i>0.92</i>
<i>Hermit Thrush</i>		<i>0.22</i>	<i>0.10</i>	<i>1.00</i>	<i>0.44</i>
<i>American Robin</i>		<i>0.89</i>	<i>0.70</i>	<i>0.60</i>	<i>0.73</i>
Brown Thrasher		0.11	0.00	0.00	0.04
Cedar Waxwing		0.33	0.10	0.30	0.24
Black-throated Blue Warbler		0.00	0.70	0.50	0.40
Yellow-rumped Warbler (Myrtle Warbler)		0.11	0.30	0.70	0.37
<i>Black-throated Green Warbler</i>		<i>2.78</i>	<i>2.90</i>	<i>2.20</i>	<i>2.63</i>
<i>Blackburnian Warbler</i>		<i>0.33</i>	<i>0.50</i>	<i>0.50</i>	<i>0.44</i>
Black-and-white Warbler		0.33	0.10	0.20	0.21
<i>Ovenbird</i>		<i>1.11</i>	<i>2.30</i>	<i>1.70</i>	<i>1.70</i>
Dark-eyed Junco (Slate-colored Junco)		0.11	0.10	0.50	0.24
Purple Finch		0.11	0.10	0.10	0.10
<i>Pine Siskin</i>		<i>0.56</i>	<i>1.00</i>	<i>0.10</i>	<i>0.55</i>
<i>Points Surveyed:</i>		9	10	10	
<i>Ave # Birds Per Point:</i>		11.33	13.40	12.90	12.54
<i>Species Richness:</i>		25	23	23	28
<i>Shannon Diversity:</i>		2.75	2.59	2.81	

Appendix B. Site Summaries (continued).

Acadia NP

ACAD-Witch Hole Pond

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Mourning Dove				0.89	0.89
Northern Flicker (Yellow-shafted Flicker)				0.11	0.11
Eastern Wood-Pewee				0.44	0.44
Eastern Phoebe				0.11	0.11
Great Crested Flycatcher				0.67	0.67
Blue-headed Vireo				0.33	0.33
Red-eyed Vireo				1.22	1.22
Blue Jay				0.44	0.44
American Crow				0.11	0.11
Black-capped Chickadee				0.89	0.89
Red-breasted Nuthatch				0.22	0.22
Veery				0.11	0.11
Hermit Thrush				0.78	0.78
American Robin				0.33	0.33
Nashville Warbler				0.11	0.11
Yellow-rumped Warbler (Myrtle Warbler)				0.78	0.78
Black-throated Green Warbler				1.89	1.89
Black-and-white Warbler				0.33	0.33
Ovenbird				1.33	1.33
Dark-eyed Junco (Slate-colored Junco)				0.11	0.11
Pine Siskin				0.11	0.11
American Goldfinch				0.22	0.22
				9	
				11.56	11.56
				22	22
				2.73	

Appendix B. Site Summaries (continued).

Acadia NP

ACAD-Seal Cove Center

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Common Loon		0.00	0.00	0.17	0.06
Mourning Dove		1.00	1.33	0.17	0.83
Hairy Woodpecker		0.17	0.00	0.17	0.11
Pileated Woodpecker		0.50	0.00	0.00	0.17
Least Flycatcher		0.50	0.33	0.50	0.44
Blue-headed Vireo		0.33	1.00	0.67	0.67
Blue Jay		0.00	0.17	0.00	0.06
American Crow		0.17	0.00	0.00	0.06
Common Raven		0.50	0.00	1.00	0.50
Black-capped Chickadee		0.33	0.17	0.00	0.17
Red-breasted Nuthatch		0.50	0.17	0.00	0.22
Brown Creeper		0.17	0.00	0.00	0.06
Winter Wren		0.33	0.17	0.00	0.17
Golden-crowned Kinglet		0.17	0.50	0.00	0.22
Swainson's Thrush		0.33	0.00	0.00	0.11
Hermit Thrush		0.50	0.00	0.00	0.17
Magnolia Warbler		0.33	0.17	0.00	0.17
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.00	0.17	0.06
Black-throated Green Warbler		1.33	1.00	1.00	1.11
Blackburnian Warbler		0.17	0.33	0.17	0.22
Ovenbird		0.33	0.50	1.83	0.89
Dark-eyed Junco (Slate-colored Junco)		0.17	0.17	0.33	0.22
Purple Finch		0.50	0.17	0.50	0.39
Pine Siskin		0.00	0.33	0.00	0.11
<i>Points Surveyed:</i>		6	6	6	
<i>Ave # Birds Per Point:</i>		8.33	6.50	6.67	7.17
<i>Species Richness:</i>		20	15	12	24
<i>Shannon Diversity:</i>		2.80	2.41	2.15	

Appendix B. Site Summaries (continued).

Acadia NP

ACAD-Seal Cove East

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Herring Gull		0.14	0.00	0.00	0.05
Mourning Dove		1.14	0.43	0.14	0.57
Downy Woodpecker		0.00	0.00	0.14	0.05
Hairy Woodpecker		0.00	0.00	0.43	0.14
Pileated Woodpecker		0.14	0.14	0.00	0.10
Least Flycatcher		0.00	0.00	0.14	0.05
Eastern Phoebe		0.00	0.00	0.14	0.05
Blue-headed Vireo		0.14	0.43	0.43	0.33
Red-eyed Vireo		0.00	0.14	0.00	0.05
Blue Jay		0.14	0.29	0.00	0.14
American Crow		0.86	0.86	0.71	0.81
Common Raven		0.57	0.29	0.29	0.38
Black-capped Chickadee		0.14	0.14	0.14	0.14
Red-breasted Nuthatch		0.57	0.14	0.43	0.38
Brown Creeper		0.00	0.57	0.43	0.33
Winter Wren		0.43	0.43	0.14	0.33
Golden-crowned Kinglet		0.43	0.29	0.57	0.43
Swainson's Thrush		0.29	0.14	0.00	0.14
Hermit Thrush		0.14	0.00	0.57	0.24
American Robin		0.43	0.00	0.29	0.24
Northern Parula		0.14	0.00	0.00	0.05
Magnolia Warbler		0.29	0.43	0.00	0.24
Black-throated Blue Warbler		0.00	0.00	0.43	0.14
Yellow-rumped Warbler (Myrtle Warbler)		0.14	0.57	0.57	0.43
Black-throated Green Warbler		1.43	1.14	0.71	1.10
Blackburnian Warbler		0.57	0.29	0.14	0.33
Blackpoll Warbler		0.00	0.14	0.00	0.05
Ovenbird		1.00	1.00	1.00	1.00
Common Yellowthroat		0.00	0.14	0.00	0.05
Swamp Sparrow		0.00	0.00	0.29	0.10
Dark-eyed Junco (Slate-colored Junco)		0.29	0.29	0.71	0.43
Red-winged Blackbird		0.14	0.29	0.14	0.19
Common Grackle		0.14	0.00	0.00	0.05
Purple Finch		0.14	0.14	0.14	0.14
Pine Siskin		0.43	0.43	0.00	0.29
<i>Points Surveyed:</i>		7	7	7	
<i>Ave # Birds Per Point:</i>		10.29	9.14	9.14	9.52
<i>Species Richness:</i>		25	24	24	35
<i>Shannon Diversity:</i>		2.92	2.96	2.99	

Appendix B. Site Summaries (continued).

Acadia NP

ACAD - Youngs Mtn

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Downy Woodpecker				0.14	0.14
Eastern Wood-Pewee				0.29	0.29
Great Crested Flycatcher				0.29	0.29
Red-eyed Vireo				0.57	0.57
Blue Jay				1.57	1.57
Black-capped Chickadee				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				0.14	0.14
Black-throated Blue Warbler				0.57	0.57
Yellow-rumped Warbler (Myrtle Warbler)				0.57	0.57
Black-throated Green Warbler				1.14	1.14
Black-and-white Warbler				0.86	0.86
Ovenbird				1.14	1.14
<i>Points Surveyed:</i>				7	
<i>Ave # Birds Per Point:</i>				11.43	11.43
<i>Species Richness:</i>				15	15
<i>Shannon Diversity:</i>				2.36	

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI East

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Mourning Dove	0.40	0.00	0.10	0.20	0.18
Barred Owl	0.00	0.10	0.00	0.00	0.03
Chimney Swift	0.00	0.00	0.00	0.10	0.03
Yellow-bellied Sapsucker	0.20	0.30	0.30	0.00	0.20
Downy Woodpecker	0.40	0.10	0.00	0.10	0.15
Hairy Woodpecker	0.00	0.20	0.30	0.00	0.13
Pileated Woodpecker	0.00	0.10	0.00	0.00	0.03
Eastern Wood-Pewee	0.20	0.30	0.20	0.40	0.28
Great Crested Flycatcher	0.00	0.10	0.10	0.00	0.05
Blue-headed Vireo	0.00	0.10	0.30	0.20	0.15
<i>Red-eyed Vireo</i>	<i>5.20</i>	<i>1.80</i>	<i>1.70</i>	<i>1.20</i>	<i>2.48</i>
<i>Blue Jay</i>	<i>0.40</i>	<i>0.80</i>	<i>0.40</i>	<i>0.50</i>	<i>0.53</i>
<i>American Crow</i>	<i>0.80</i>	<i>0.40</i>	<i>0.20</i>	<i>0.20</i>	<i>0.40</i>
Common Raven	0.20	0.00	0.00	0.00	0.05
<i>Black-capped Chickadee</i>	<i>0.60</i>	<i>1.10</i>	<i>0.40</i>	<i>0.60</i>	<i>0.68</i>
Tufted Titmouse	0.20	0.00	0.10	0.10	0.10
White-breasted Nuthatch	0.40	0.20	0.10	0.00	0.18
<i>Brown Creeper</i>	<i>1.40</i>	<i>0.50</i>	<i>0.40</i>	<i>0.50</i>	<i>0.70</i>
Winter Wren	0.00	0.00	0.40	0.10	0.13
Golden-crowned Kinglet	0.20	0.00	0.00	0.00	0.05
Veery	0.40	0.10	0.00	0.00	0.13
<i>Hermit Thrush</i>	<i>1.00</i>	<i>0.70</i>	<i>1.00</i>	<i>0.50</i>	<i>0.80</i>
Wood Thrush	0.00	0.00	0.30	0.00	0.08
<i>American Robin</i>	<i>0.80</i>	<i>0.40</i>	<i>0.20</i>	<i>0.50</i>	<i>0.48</i>
Black-throated Blue Warbler	0.00	0.10	0.00	0.10	0.05
<i>Black-throated Green Warbler</i>	<i>1.60</i>	<i>0.70</i>	<i>0.50</i>	<i>0.40</i>	<i>0.80</i>
<i>Blackburnian Warbler</i>	<i>1.60</i>	<i>0.70</i>	<i>0.70</i>	<i>0.80</i>	<i>0.95</i>
Pine Warbler	0.00	0.10	0.20	0.10	0.10
Black-and-white Warbler	0.00	0.10	0.00	0.00	0.03
<i>Ovenbird</i>	<i>5.20</i>	<i>3.60</i>	<i>3.20</i>	<i>3.00</i>	<i>3.75</i>
Louisiana Waterthrush	0.00	0.20	0.00	0.00	0.05
Common Yellowthroat	0.00	0.10	0.10	0.00	0.05
<i>Scarlet Tanager</i>	<i>0.40</i>	<i>0.20</i>	<i>0.40</i>	<i>0.60</i>	<i>0.40</i>
Dark-eyed Junco (Slate-colored Junco)	0.00	0.30	0.00	0.10	0.10
Rose-breasted Grosbeak	0.20	0.00	0.00	0.00	0.05
Indigo Bunting	0.00	0.20	0.00	0.00	0.05
Brown-headed Cowbird	0.20	0.10	0.10	0.10	0.13
American Goldfinch	0.00	0.10	0.00	0.00	0.03
<i>Points Surveyed:</i>	5	10	10	10	
<i>Ave # Birds Per Point:</i>	22.00	13.80	11.70	10.40	14.48
<i>Species Richness:</i>	22	30	24	22	38
<i>Shannon Diversity:</i>	2.45	2.75	2.62	2.55	

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI Northwest

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Broad-winged Hawk	0.10	0.00	0.00	0.00	0.03
Mourning Dove	0.00	0.20	0.20	0.00	0.10
Yellow-bellied Sapsucker	0.00	0.30	0.00	0.50	0.20
Downy Woodpecker	0.00	0.10	0.00	0.10	0.05
Hairy Woodpecker	0.40	0.30	0.20	0.00	0.23
Northern Flicker (Yellow-shafted Flicker)	0.00	0.10	0.00	0.00	0.03
Pileated Woodpecker	0.20	0.00	0.00	0.10	0.08
<i>Eastern Wood-Pewee</i>	<i>0.80</i>	<i>0.80</i>	<i>1.40</i>	<i>0.60</i>	<i>0.90</i>
Great Crested Flycatcher	0.20	0.00	0.80	0.20	0.30
Blue-headed Vireo	0.70	0.30	0.00	0.10	0.28
<i>Red-eyed Vireo</i>	<i>2.70</i>	<i>1.70</i>	<i>3.80</i>	<i>3.20</i>	<i>2.85</i>
<i>Blue Jay</i>	<i>0.80</i>	<i>0.60</i>	<i>0.60</i>	<i>0.60</i>	<i>0.65</i>
American Crow	0.00	0.30	0.20	0.30	0.20
Common Raven	0.10	0.00	0.20	0.00	0.08
Black-capped Chickadee	0.20	0.40	0.60	0.40	0.40
Red-breasted Nuthatch	0.00	0.20	0.00	0.10	0.08
White-breasted Nuthatch	0.40	0.20	0.00	0.40	0.25
Brown Creeper	0.30	0.50	0.20	0.30	0.33
Winter Wren	0.10	0.10	0.00	0.00	0.05
Golden-crowned Kinglet	0.00	0.10	0.00	0.00	0.03
Veery	0.10	0.10	0.40	0.00	0.15
<i>Hermit Thrush</i>	<i>0.80</i>	<i>0.40</i>	<i>0.80</i>	<i>1.40</i>	<i>0.85</i>
Wood Thrush	0.70	0.60	0.60	0.40	0.58
<i>American Robin</i>	<i>1.20</i>	<i>0.40</i>	<i>0.20</i>	<i>0.50</i>	<i>0.58</i>
Cedar Waxwing	0.00	0.00	0.20	0.00	0.05
<i>Black-throated Blue Warbler</i>	<i>0.40</i>	<i>0.50</i>	<i>0.60</i>	<i>0.60</i>	<i>0.53</i>
Yellow-rumped Warbler (Myrtle Warbler)	0.00	0.00	0.00	0.20	0.05
<i>Black-throated Green Warbler</i>	<i>1.50</i>	<i>0.60</i>	<i>1.20</i>	<i>0.60</i>	<i>0.98</i>
<i>Blackburnian Warbler</i>	<i>0.90</i>	<i>0.70</i>	<i>0.00</i>	<i>0.60</i>	<i>0.55</i>
Pine Warbler	0.00	0.00	0.00	0.30	0.08
Black-and-white Warbler	0.10	0.00	0.00	0.00	0.03
American Redstart	0.10	0.10	0.00	0.10	0.08
<i>Ovenbird</i>	<i>4.50</i>	<i>2.60</i>	<i>4.80</i>	<i>4.60</i>	<i>4.13</i>
Mourning Warbler	0.00	0.00	0.00	0.10	0.03
Common Yellowthroat	0.10	0.00	0.00	0.00	0.03
Scarlet Tanager	0.30	0.80	0.00	0.50	0.40
Dark-eyed Junco (Slate-colored Junco)	0.60	0.20	0.00	0.20	0.25
Rose-breasted Grosbeak	0.60	0.10	0.00	0.50	0.30
Common Grackle	0.00	0.10	0.00	0.00	0.03
Brown-headed Cowbird	0.00	0.10	0.00	0.00	0.03
Purple Finch	0.00	0.10	0.00	0.00	0.03

Appendix B. Site Summaries (continued).

<i>Points Surveyed:</i>	10	10	5	10	
<i>Ave # Birds Per Point:</i>	18.90	13.60	17.00	17.50	16.75
<i>Species Richness:</i>	27	31	18	27	41
<i>Shannon Diversity:</i>	2.72	2.98	2.30	2.65	

Appendix B. Site Summaries (continued).

Marsh-Billings-Rockefeller NHP

MABI South

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Wild Turkey	0.00	0.00	0.20	0.00	0.05
Mourning Dove	0.20	0.40	0.20	0.40	0.30
Barred Owl	0.00	1.20	0.00	0.20	0.35
Yellow-bellied Sapsucker	0.40	0.40	0.20	0.00	0.25
Downy Woodpecker	0.40	0.20	0.00	0.00	0.15
Northern Flicker (Yellow-shafted Flicker)	0.40	0.00	0.00	0.00	0.10
Pileated Woodpecker	0.00	0.00	0.00	0.20	0.05
<i>Eastern Wood-Pewee</i>	<i>1.20</i>	<i>1.40</i>	<i>0.40</i>	<i>0.60</i>	<i>0.90</i>
Least Flycatcher	0.20	0.60	0.20	0.00	0.25
Eastern Kingbird	0.00	0.20	0.00	0.00	0.05
Blue-headed Vireo	0.20	0.20	0.20	0.00	0.15
<i>Red-eyed Vireo</i>	<i>1.40</i>	<i>2.00</i>	<i>0.20</i>	<i>1.20</i>	<i>1.20</i>
<i>Blue Jay</i>	<i>0.80</i>	<i>1.40</i>	<i>0.20</i>	<i>0.60</i>	<i>0.75</i>
American Crow	0.20	0.40	0.00	0.00	0.15
<i>Black-capped Chickadee</i>	<i>0.60</i>	<i>1.20</i>	<i>0.60</i>	<i>0.80</i>	<i>0.80</i>
Tufted Titmouse	0.00	0.20	0.00	0.00	0.05
Red-breasted Nuthatch	0.20	0.00	0.00	0.00	0.05
<i>White-breasted Nuthatch</i>	<i>0.40</i>	<i>0.80</i>	<i>0.20</i>	<i>1.00</i>	<i>0.60</i>
<i>Brown Creeper</i>	<i>0.60</i>	<i>0.80</i>	<i>0.60</i>	<i>0.20</i>	<i>0.55</i>
Golden-crowned Kinglet	0.00	0.00	0.20	0.00	0.05
Veery	0.00	0.20	0.00	0.00	0.05
<i>Hermit Thrush</i>	<i>0.00</i>	<i>1.40</i>	<i>1.40</i>	<i>1.00</i>	<i>0.95</i>
Wood Thrush	0.60	0.00	0.20	0.00	0.20
<i>American Robin</i>	<i>0.60</i>	<i>1.60</i>	<i>0.80</i>	<i>0.60</i>	<i>0.90</i>
Cedar Waxwing	0.00	0.20	0.00	0.00	0.05
Chestnut-sided Warbler	0.00	0.00	0.20	0.00	0.05
Yellow-rumped Warbler (Myrtle Warbler)	0.40	0.40	0.20	0.00	0.25
Black-throated Green Warbler	0.00	1.00	0.20	0.20	0.35
Blackburnian Warbler	0.20	0.60	0.60	0.60	0.50
Black-and-white Warbler	0.40	0.20	0.00	0.00	0.15
<i>Ovenbird</i>	<i>2.60</i>	<i>4.40</i>	<i>2.60</i>	<i>2.40</i>	<i>3.00</i>
Common Yellowthroat	0.20	0.40	0.60	0.40	0.40
Scarlet Tanager	0.20	0.80	0.20	0.60	0.45
Chipping Sparrow	0.60	0.20	0.00	0.20	0.25
Dark-eyed Junco (Slate-colored Junco)	0.00	1.20	0.20	0.20	0.40
Rose-breasted Grosbeak	0.20	0.40	0.20	0.00	0.20
Indigo Bunting	0.00	0.60	0.40	0.00	0.25
Bobolink	0.20	0.20	0.00	0.00	0.10
<i>Red-winged Blackbird</i>	<i>0.20</i>	<i>1.40</i>	<i>0.60</i>	<i>0.00</i>	<i>0.55</i>
Baltimore Oriole	0.20	0.00	0.00	0.00	0.05
American Goldfinch	0.00	0.00	0.20	0.00	0.05

Appendix B. Site Summaries (continued).

<i>Points Surveyed:</i>	5	5	5	5	
<i>Ave # Birds Per Point:</i>	13.80	26.60	12.00	11.40	15.95
<i>Species Richness:</i>	27	32	27	18	41
<i>Shannon Diversity:</i>	2.96	3.11	2.90	2.61	

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Hartwell Tavern

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Red-tailed Hawk	0.00	0.00	0.00	0.14	0.04
Black-billed Cuckoo	0.00	0.00	0.14	0.00	0.04
Red-bellied Woodpecker	0.00	0.29	0.29	0.57	0.29
<i>Downy Woodpecker</i>	<i>0.29</i>	<i>0.71</i>	<i>0.57</i>	<i>0.57</i>	<i>0.54</i>
Hairy Woodpecker	0.00	0.29	0.00	0.14	0.11
Northern Flicker (Yellow-shafted Flicker)	0.00	0.00	0.14	0.00	0.04
Eastern Wood-Pewee	0.86	0.86	0.43	0.86	0.75
Eastern Phoebe	0.14	0.00	0.14	0.00	0.07
Great Crested Flycatcher	0.29	0.00	0.43	0.14	0.21
Red-eyed Vireo	0.00	0.29	0.71	0.14	0.29
<i>Blue Jay</i>	<i>2.14</i>	<i>0.86</i>	<i>1.43</i>	<i>1.00</i>	<i>1.36</i>
<i>American Crow</i>	<i>1.00</i>	<i>1.00</i>	<i>1.29</i>	<i>0.86</i>	<i>1.04</i>
<i>Black-capped Chickadee</i>	<i>0.71</i>	<i>0.71</i>	<i>0.86</i>	<i>0.86</i>	<i>0.79</i>
<i>Tufted Titmouse</i>	<i>0.86</i>	<i>1.86</i>	<i>2.57</i>	<i>2.14</i>	<i>1.86</i>
White-breasted Nuthatch	0.43	0.57	0.43	0.57	0.50
Carolina Wren	0.14	0.14	0.00	0.00	0.07
Hermit Thrush	0.14	0.00	0.00	0.00	0.04
Wood Thrush	0.43	0.14	0.57	0.43	0.39
<i>American Robin</i>	<i>0.57</i>	<i>1.00</i>	<i>2.14</i>	<i>1.57</i>	<i>1.32</i>
Gray Catbird	0.57	0.14	0.57	0.71	0.50
Northern Mockingbird	0.00	0.00	0.00	0.14	0.04
Cedar Waxwing	0.00	0.14	0.00	0.71	0.21
Yellow Warbler	0.00	0.00	0.14	0.14	0.07
Pine Warbler	0.14	0.14	0.00	0.29	0.14
<i>Ovenbird</i>	<i>0.71</i>	<i>0.86</i>	<i>0.43</i>	<i>1.00</i>	<i>0.75</i>
Common Yellowthroat	0.14	0.29	0.57	0.71	0.43
Scarlet Tanager	0.57	0.29	0.57	1.00	0.61
Chipping Sparrow	0.14	0.00	0.43	0.29	0.21
Song Sparrow	0.14	0.14	0.14	0.14	0.14
<i>Northern Cardinal</i>	<i>1.43</i>	<i>0.57</i>	<i>1.00</i>	<i>0.71</i>	<i>0.93</i>
Rose-breasted Grosbeak	0.00	0.14	0.00	0.43	0.14
Indigo Bunting	0.14	0.00	0.29	0.00	0.11
Red-winged Blackbird	0.43	0.00	0.14	0.57	0.29
Common Grackle	0.43	0.14	0.14	0.71	0.36
Brown-headed Cowbird	0.29	0.43	0.29	0.43	0.36
Baltimore Oriole	0.00	0.14	0.00	0.29	0.11
House Finch	0.00	0.00	0.00	0.29	0.07
American Goldfinch	1.00	0.29	0.29	0.14	0.43
Points Surveyed:	7	7	7	7	
Ave # Birds Per Point:	14.14	12.43	17.14	18.71	15.61
Species Richness:	26	26	28	32	38
Shannon Diversity:	2.95	2.95	2.97	3.21	

Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA Miriam's Corner

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.00	0.13	0.00	0.00	0.03
Great Blue Heron	0.00	0.00	0.00	0.25	0.06
Red-tailed Hawk	0.00	0.00	0.00	0.13	0.03
Killdeer	0.13	0.00	0.00	0.00	0.03
Mourning Dove	0.00	0.00	0.25	0.00	0.06
Chimney Swift	0.00	0.25	0.00	0.00	0.06
<i>Downy Woodpecker</i>	<i>0.50</i>	<i>0.88</i>	<i>0.38</i>	<i>1.00</i>	<i>0.69</i>
Hairy Woodpecker	0.13	0.25	0.00	0.00	0.09
Northern Flicker (Yellow-shafted Flicker)	0.25	0.00	0.25	0.25	0.19
Eastern Wood-Pewee	0.13	0.00	0.00	0.13	0.06
Alder Flycatcher	0.00	0.00	0.00	0.13	0.03
Eastern Phoebe	0.00	0.00	0.00	0.13	0.03
Great Crested Flycatcher	0.00	0.00	0.25	0.00	0.06
Eastern Kingbird	0.13	0.00	0.00	0.00	0.03
Warbling Vireo	0.13	0.00	0.13	0.13	0.09
Red-eyed Vireo	0.00	0.00	0.13	0.00	0.03
<i>Blue Jay</i>	<i>0.75</i>	<i>0.75</i>	<i>0.50</i>	<i>0.50</i>	<i>0.63</i>
<i>American Crow</i>	<i>0.13</i>	<i>0.63</i>	<i>0.38</i>	<i>1.13</i>	<i>0.56</i>
Barn Swallow	0.00	0.00	0.00	0.13	0.03
<i>Black-capped Chickadee</i>	<i>1.25</i>	<i>1.00</i>	<i>0.25</i>	<i>0.38</i>	<i>0.72</i>
<i>Tufted Titmouse</i>	<i>1.00</i>	<i>0.88</i>	<i>0.50</i>	<i>1.00</i>	<i>0.84</i>
White-breasted Nuthatch	0.50	0.13	0.00	0.50	0.28
Carolina Wren	0.25	0.13	0.00	0.13	0.13
House Wren	0.00	0.00	0.00	0.13	0.03
Blue-gray Gnatcatcher	0.00	0.00	0.00	0.13	0.03
Eastern Bluebird	0.00	0.00	0.00	0.13	0.03
Veery	0.13	0.38	0.00	0.00	0.13
Wood Thrush	0.50	0.75	0.50	0.38	0.53
American Robin	0.38	1.00	0.00	0.25	0.41
<i>Gray Catbird</i>	<i>0.38</i>	<i>0.88</i>	<i>0.25</i>	<i>1.13</i>	<i>0.66</i>
Northern Mockingbird	0.00	0.25	0.00	0.13	0.09
Cedar Waxwing	0.25	0.00	0.00	0.13	0.09
Blue-winged Warbler	0.38	0.00	0.00	0.25	0.16
Yellow Warbler	0.13	0.00	0.25	0.13	0.13
Pine Warbler	0.25	0.50	0.25	0.63	0.41
American Redstart	0.00	0.13	0.00	0.13	0.06
<i>Ovenbird</i>	<i>0.50</i>	<i>0.75</i>	<i>0.50</i>	<i>0.50</i>	<i>0.56</i>
<i>Common Yellowthroat</i>	<i>1.00</i>	<i>1.00</i>	<i>0.25</i>	<i>0.63</i>	<i>0.72</i>
Scarlet Tanager	0.25	0.00	0.13	0.38	0.19
<i>Song Sparrow</i>	<i>1.25</i>	<i>0.88</i>	<i>0.63</i>	<i>1.13</i>	<i>0.97</i>
Swamp Sparrow	0.00	0.00	0.13	0.13	0.06
<i>Northern Cardinal</i>	<i>0.38</i>	<i>0.63</i>	<i>0.50</i>	<i>0.75</i>	<i>0.56</i>
Rose-breasted Grosbeak	0.50	0.38	0.38	0.50	0.44
Indigo Bunting	0.00	0.38	0.13	0.13	0.16
Red-winged Blackbird	0.88	0.13	0.50	0.63	0.53

Appendix B. Site Summaries (continued).

Common Grackle	0.38	0.00	0.00	0.25	0.16
Brown-headed Cowbird	0.25	0.50	0.13	0.38	0.31
Baltimore Oriole	0.25	0.25	0.00	0.38	0.22
House Finch	0.25	0.00	0.13	0.00	0.09
American Goldfinch	0.38	0.63	0.25	0.38	0.41
House Sparrow	0.00	0.25	0.00	0.13	0.09
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<i>Points Surveyed:</i>	8	8	8	8	
<i>Ave # Birds Per Point:</i>	13.88	14.63	7.88	15.63	13.00
<i>Species Richness:</i>	33	28	26	41	51
<i>Shannon Diversity:</i>	3.25	3.15	3.13	3.42	
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Appendix B. Site Summaries (continued).

Minute Man NHP

MIMA The Bluff

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Wild Turkey	0.25	0.00	0.00	0.00	0.06
Red-tailed Hawk	0.00	0.00	0.00	0.13	0.03
Mourning Dove	0.25	0.00	0.00	0.00	0.06
Red-bellied Woodpecker	0.00	0.00	0.13	0.00	0.03
Eastern Wood-Pewee	0.13	0.00	0.00	0.00	0.03
Great Crested Flycatcher	0.00	0.00	0.00	0.25	0.06
Warbling Vireo	0.00	0.00	0.00	0.25	0.06
Red-eyed Vireo	0.00	0.00	0.25	0.13	0.09
<i>Blue Jay</i>	<i>0.63</i>	<i>1.75</i>	<i>1.75</i>	<i>0.75</i>	<i>1.22</i>
<i>American Crow</i>	<i>0.75</i>	<i>0.63</i>	<i>0.88</i>	<i>0.63</i>	<i>0.72</i>
<i>Black-capped Chickadee</i>	<i>1.38</i>	<i>0.25</i>	<i>0.38</i>	<i>0.25</i>	<i>0.56</i>
<i>Tufted Titmouse</i>	<i>1.88</i>	<i>1.75</i>	<i>1.38</i>	<i>2.50</i>	<i>1.88</i>
<i>White-breasted Nuthatch</i>	<i>0.38</i>	<i>0.50</i>	<i>0.00</i>	<i>0.88</i>	<i>0.44</i>
Carolina Wren	0.00	0.25	0.00	0.00	0.06
House Wren	0.13	0.13	0.00	0.13	0.09
Wood Thrush	0.00	0.00	0.00	0.25	0.06
<i>American Robin</i>	<i>0.13</i>	<i>0.75</i>	<i>1.38</i>	<i>1.63</i>	<i>0.97</i>
Gray Catbird	0.00	0.38	0.63	0.63	0.41
<i>Pine Warbler</i>	<i>0.38</i>	<i>0.25</i>	<i>0.88</i>	<i>1.25</i>	<i>0.69</i>
Common Yellowthroat	0.13	0.00	0.25	0.63	0.25
Scarlet Tanager	0.00	0.00	0.00	0.63	0.16
Chipping Sparrow	0.00	0.00	0.13	0.13	0.06
<i>Song Sparrow</i>	<i>0.50</i>	<i>0.75</i>	<i>0.63</i>	<i>0.13</i>	<i>0.50</i>
<i>Northern Cardinal</i>	<i>0.88</i>	<i>1.00</i>	<i>0.63</i>	<i>0.25</i>	<i>0.69</i>
Rose-breasted Grosbeak	0.00	0.00	0.00	0.25	0.06
<i>Red-winged Blackbird</i>	<i>0.50</i>	<i>1.13</i>	<i>0.75</i>	<i>0.75</i>	<i>0.78</i>
Common Grackle	0.25	0.25	0.13	0.63	0.31
Brown-headed Cowbird	0.00	0.50	0.00	0.13	0.16
Baltimore Oriole	0.13	0.00	0.00	0.13	0.06
House Finch	0.13	0.25	0.00	0.00	0.09
American Goldfinch	0.63	0.50	0.13	0.13	0.34
House Sparrow	0.13	0.13	0.13	0.00	0.09
<i>Points Surveyed:</i>	8	8	8	8	
<i>Ave # Birds Per Point:</i>	9.50	11.13	10.38	13.38	11.09
<i>Species Richness:</i>	20	18	17	25	32
<i>Shannon Diversity:</i>	2.63	2.62	2.52	2.80	

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Mt. Kemble

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Red-tailed Hawk			0.20	0.10	0.15
Mourning Dove			0.30	0.00	0.15
Yellow-billed Cuckoo			0.10	0.50	0.30
Great Horned Owl			0.20	0.30	0.25
Red-bellied Woodpecker			0.60	0.20	0.40
<i>Downy Woodpecker</i>			<i>0.60</i>	<i>0.50</i>	<i>0.55</i>
<i>Hairy Woodpecker</i>			<i>0.50</i>	<i>0.40</i>	<i>0.45</i>
Northern Flicker (Yellow-shafted Flicker)			0.40	0.40	0.40
Pileated Woodpecker			0.20	0.20	0.20
<i>Eastern Wood-Pewee</i>			1.10	0.80	0.95
Eastern Phoebe			0.10	0.00	0.05
Great Crested Flycatcher			0.20	0.20	0.20
Red-eyed Vireo			0.20	0.30	0.25
<i>Blue Jay</i>			<i>1.30</i>	<i>1.10</i>	<i>1.20</i>
<i>American Crow</i>			<i>0.70</i>	<i>0.60</i>	<i>0.65</i>
Black-capped Chickadee			0.10	0.00	0.05
<i>Tufted Titmouse</i>			<i>1.00</i>	<i>1.40</i>	<i>1.20</i>
<i>White-breasted Nuthatch</i>			<i>0.80</i>	<i>0.70</i>	<i>0.75</i>
House Wren			0.10	0.00	0.05
Blue-gray Gnatcatcher			0.00	0.20	0.10
Eastern Bluebird			0.20	0.00	0.10
Veery			0.40	0.00	0.20
<i>Wood Thrush</i>			1.50	1.60	1.55
<i>American Robin</i>			<i>0.90</i>	<i>1.10</i>	<i>1.00</i>
Gray Catbird			0.10	0.10	0.10
American Redstart			0.00	0.20	0.10
<i>Worm-eating Warbler</i>			0.40	0.10	0.25
Ovenbird			0.60	0.10	0.35
<i>Scarlet Tanager</i>			<i>0.50</i>	<i>1.00</i>	<i>0.75</i>
<i>Eastern Towhee</i>			0.00	0.20	0.10
Northern Cardinal			0.10	0.40	0.25
Rose-breasted Grosbeak			0.10	0.00	0.05
Indigo Bunting			0.20	0.00	0.10
Brown-headed Cowbird			0.00	0.10	0.05
			10	10	
<i>Points Surveyed:</i>					
<i>Ave # Birds Per Point:</i>			13.70	12.80	13.25
<i>Species Richness:</i>			30	26	34
<i>Shannon Diversity:</i>			3.09	2.93	

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Primrose Brook

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Wild Turkey	0.00	0.20	0.00	0.00	0.05
Red-tailed Hawk	0.10	0.10	0.00	0.00	0.05
Mourning Dove	0.10	0.10	0.00	0.10	0.08
Yellow-billed Cuckoo	0.00	0.40	0.00	0.00	0.10
<i>Red-bellied Woodpecker</i>	<i>0.60</i>	<i>0.40</i>	<i>1.20</i>	<i>1.20</i>	<i>0.85</i>
Downy Woodpecker	0.20	0.10	0.00	0.20	0.13
Northern Flicker (Yellow-shafted Flicker)	0.20	0.70	0.10	0.10	0.28
Pileated Woodpecker	0.00	0.10	0.00	0.20	0.08
<i>Eastern Wood-Pewee</i>	<i>0.80</i>	<i>0.80</i>	<i>0.20</i>	<i>0.10</i>	<i>0.48</i>
Eastern Phoebe	0.00	0.10	0.00	0.00	0.03
Great Crested Flycatcher	0.00	0.00	0.20	0.00	0.05
<i>Yellow-throated Vireo</i>	<i>0.10</i>	<i>0.00</i>	<i>0.10</i>	<i>0.00</i>	<i>0.05</i>
<i>Red-eyed Vireo</i>	<i>1.30</i>	<i>1.10</i>	<i>0.50</i>	<i>0.60</i>	<i>0.88</i>
<i>Blue Jay</i>	<i>0.60</i>	<i>1.70</i>	<i>0.90</i>	<i>0.60</i>	<i>0.95</i>
American Crow	0.10	0.80	0.10	0.10	0.28
Black-capped Chickadee	0.00	0.10	0.00	0.00	0.03
<i>Tufted Titmouse</i>	<i>0.60</i>	<i>0.50</i>	<i>0.80</i>	<i>1.40</i>	<i>0.83</i>
White-breasted Nuthatch	0.20	0.50	0.40	0.10	0.30
Carolina Wren	0.00	0.20	0.00	0.00	0.05
Eastern Bluebird	0.00	0.00	0.10	0.00	0.03
<i>Veery</i>	<i>0.40</i>	<i>0.70</i>	<i>0.60</i>	<i>1.00</i>	<i>0.68</i>
Swainson's Thrush	0.10	0.00	0.00	0.10	0.05
<i>Wood Thrush</i>	<i>1.30</i>	<i>1.90</i>	<i>0.90</i>	<i>0.90</i>	<i>1.25</i>
<i>American Robin</i>	<i>0.90</i>	<i>1.30</i>	<i>1.00</i>	<i>1.00</i>	<i>1.05</i>
Gray Catbird	0.00	0.00	0.10	0.10	0.05
<i>Worm-eating Warbler</i>	<i>0.00</i>	<i>0.40</i>	<i>0.00</i>	<i>0.00</i>	<i>0.10</i>
<i>Ovenbird</i>	<i>0.90</i>	<i>1.10</i>	<i>0.40</i>	<i>0.70</i>	<i>0.78</i>
<i>Louisiana Waterthrush</i>	<i>0.00</i>	<i>0.10</i>	<i>0.00</i>	<i>0.00</i>	<i>0.03</i>
Hooded Warbler	0.10	0.20	0.00	0.00	0.08
<i>Scarlet Tanager</i>	<i>0.60</i>	<i>1.20</i>	<i>0.50</i>	<i>0.30</i>	<i>0.65</i>
<i>Eastern Towhee</i>	<i>0.40</i>	<i>0.40</i>	<i>0.10</i>	<i>0.40</i>	<i>0.33</i>
Northern Cardinal	0.30	0.90	0.10	0.40	0.43
Rose-breasted Grosbeak	0.10	0.10	0.10	0.10	0.10
Brown-headed Cowbird	0.00	0.10	0.00	0.00	0.03
Baltimore Oriole	0.60	0.10	0.60	0.20	0.38
<i>Points Surveyed:</i>	10	10	10	10	
<i>Ave # Birds Per Point:</i>	10.60	16.40	9.00	9.90	11.48
<i>Species Richness:</i>	23	30	21	22	35
<i>Shannon Diversity:</i>	2.82	3.01	2.72	2.71	

Appendix B. Site Summaries (continued).

Morristown NHP

MORR Soldier's Huts

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Turkey Vulture	0.11	0.00			0.06
Red-bellied Woodpecker	0.44	0.11			0.28
Downy Woodpecker	0.00	0.11			0.06
Northern Flicker (Yellow-shafted Flicker)	0.22	0.33			0.28
Pileated Woodpecker	0.22	0.11			0.17
Eastern Wood-Pewee	0.67	1.00			0.83
Great Crested Flycatcher	0.11	0.11			0.11
Yellow-throated Vireo	0.00	0.22			0.11
<i>Red-eyed Vireo</i>	<i>0.89</i>	<i>0.89</i>			<i>0.89</i>
Blue Jay	0.22	0.33			0.28
American Crow	0.00	0.11			0.06
Black-capped Chickadee	0.11	0.00			0.06
<i>Tufted Titmouse</i>	<i>0.56</i>	<i>0.44</i>			<i>0.50</i>
White-breasted Nuthatch	0.11	0.00			0.06
<i>Veery</i>	<i>0.44</i>	<i>0.78</i>			<i>0.61</i>
Wood Thrush	1.11	1.22			1.17
<i>American Robin</i>	<i>0.78</i>	<i>0.78</i>			<i>0.78</i>
Gray Catbird	0.11	0.22			0.17
Cedar Waxwing	0.11	0.00			0.06
Blackpoll Warbler	0.56	0.00			0.28
Black-and-white Warbler	0.11	0.00			0.06
<i>American Redstart</i>	<i>0.33</i>	<i>0.67</i>			<i>0.50</i>
<i>Ovenbird</i>	<i>0.78</i>	<i>1.11</i>			<i>0.94</i>
Louisiana Waterthrush	0.33	0.11			0.22
Kentucky Warbler	0.00	0.11			0.06
Hooded Warbler	0.22	0.22			0.22
Canada Warbler	0.11	0.00			0.06
<i>Scarlet Tanager</i>	<i>0.56</i>	<i>0.33</i>			<i>0.44</i>
Eastern Towhee	0.56	0.67			0.61
Chipping Sparrow	0.00	0.11			0.06
Rose-breasted Grosbeak	0.00	0.33			0.17
Brown-headed Cowbird	0.22	0.22			0.22
Baltimore Oriole	0.33	0.11			0.22
<i>Points Surveyed:</i>	9	9			
<i>Ave # Birds Per Point:</i>	10.33	10.78			10.56
<i>Species Richness:</i>	27	26			33
<i>Shannon Diversity:</i>	3.05	2.94			

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Middle Ravine

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Canada Goose		0.00	0.10		0.05
Mourning Dove		0.70	0.60		0.65
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		0.40	0.80		0.60
Eastern Phoebe		0.10	0.00		0.05
Great Crested Flycatcher		0.50	0.50		0.50
Red-eyed Vireo		0.60	0.70		0.65
Blue Jay		0.50	0.60		0.55
American Crow		0.60	0.40		0.50
Black-capped Chickadee		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		0.20	0.30		0.25
Hermit Thrush		0.10	0.40		0.25
Wood Thrush		0.80	0.30		0.55
American Robin		1.40	0.50		0.95
Cedar Waxwing		0.40	0.00		0.20
Blue-winged Warbler		0.00	0.10		0.05
Golden-winged Warbler		0.10	0.00		0.05
Chestnut-sided Warbler		0.10	0.00		0.05
Yellow-rumped Warbler (Myrtle Warbler)		0.00	0.20		0.10
American Redstart		0.10	0.00		0.05
Ovenbird		1.80	1.30		1.55
Common Yellowthroat		0.80	0.80		0.80
Scarlet Tanager		0.40	0.40		0.40
Eastern Towhee		0.60	0.50		0.55
Chipping Sparrow		0.20	0.00		0.10
Field Sparrow		0.20	0.20		0.20
Song Sparrow		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		0.10	0.00		0.05
American Goldfinch		1.10	1.20		1.15

Appendix B. Site Summaries (continued).

<i>Points Surveyed:</i>	10	10	
<i>Ave # Birds Per Point:</i>	14.90	13.80	14.35
<i>Species Richness:</i>	36	31	40
<i>Shannon Diversity:</i>	3.20	3.24	

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Wilkinson Trail

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.30		0.10	0.00	0.13
Red-tailed Hawk	0.10		0.00	0.00	0.03
Mourning Dove	0.10		0.10	0.00	0.07
Black-billed Cuckoo	0.00		0.10	0.00	0.03
Yellow-billed Cuckoo	0.00		0.10	0.00	0.03
Red-bellied Woodpecker	0.00		0.00	0.10	0.03
<i>Yellow-bellied Sapsucker</i>	<i>0.00</i>		<i>0.20</i>	<i>0.60</i>	<i>0.27</i>
Downy Woodpecker	0.10		0.30	0.00	0.13
Hairy Woodpecker	0.20		0.00	0.00	0.07
Northern Flicker (Yellow-shafted Flicker)	0.00		0.00	0.10	0.03
Pileated Woodpecker	0.10		0.10	0.10	0.10
Eastern Wood-Pewee	0.00		1.20	1.20	0.80
Acadian Flycatcher	0.00		0.10	0.00	0.03
Least Flycatcher	0.00		0.20	0.00	0.07
Eastern Phoebe	0.00		0.30	0.00	0.10
<i>Great Crested Flycatcher</i>	<i>0.00</i>		<i>0.90</i>	<i>0.60</i>	<i>0.50</i>
<i>Red-eyed Vireo</i>	<i>0.00</i>		<i>1.20</i>	<i>0.50</i>	<i>0.57</i>
Blue Jay	0.10		0.30	0.30	0.23
<i>American Crow</i>	<i>0.20</i>		<i>0.50</i>	<i>0.40</i>	<i>0.37</i>
<i>Black-capped Chickadee</i>	<i>0.00</i>		<i>1.20</i>	<i>0.80</i>	<i>0.67</i>
Tufted Titmouse	0.10		0.40	0.10	0.20
Red-breasted Nuthatch	0.00		0.10	0.00	0.03
White-breasted Nuthatch	0.00		0.10	0.20	0.10
Brown Creeper	0.00		0.40	0.30	0.23
Blue-gray Gnatcatcher	0.00		0.10	0.00	0.03
<i>Veery</i>	<i>0.00</i>		<i>0.20</i>	<i>0.60</i>	<i>0.27</i>
Hermit Thrush	0.00		0.00	0.70	0.23
Wood Thrush	0.00		0.60	0.00	0.20
<i>American Robin</i>	<i>0.00</i>		<i>0.60</i>	<i>0.20</i>	<i>0.27</i>
Gray Catbird	0.00		0.40	0.20	0.20
Cedar Waxwing	0.00		0.00	0.70	0.23
Chestnut-sided Warbler	0.00		0.40	0.10	0.17
<i>Ovenbird</i>	<i>0.00</i>		<i>1.70</i>	<i>0.90</i>	<i>0.87</i>
Northern Waterthrush	0.00		0.10	0.00	0.03
Louisiana Waterthrush	0.00		0.20	0.00	0.07
<i>Common Yellowthroat</i>	<i>0.00</i>		<i>0.90</i>	<i>0.50</i>	<i>0.47</i>
<i>Scarlet Tanager</i>	<i>0.00</i>		<i>0.60</i>	<i>0.40</i>	<i>0.33</i>
Eastern Towhee	0.00		0.10	0.10	0.07
Chipping Sparrow	0.00		0.20	0.10	0.10
Song Sparrow	0.00		0.10	0.00	0.03
Northern Cardinal	0.20		0.10	0.40	0.23
Rose-breasted Grosbeak	0.00		0.20	0.00	0.07
Indigo Bunting	0.00		0.20	0.00	0.07
Red-winged Blackbird	0.20		0.00	0.00	0.07
Common Grackle	0.10		0.00	0.00	0.03

Appendix B. Site Summaries (continued).

<i>American Goldfinch</i>	0.10	0.60	0.40	0.37
<i>Points Surveyed:</i>	10	10	10	
<i>Ave # Birds Per Point:</i>	1.90	15.20	10.60	9.23
<i>Species Richness:</i>	13	38	26	46
<i>Shannon Diversity:</i>	2.48	3.25	3.01	

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Bemis Heights

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Mourning Dove			0.33	1.00	0.67
Ruby-throated Hummingbird			0.00	0.17	0.08
Red-bellied Woodpecker			0.00	0.17	0.08
Yellow-bellied Sapsucker			0.17	0.50	0.33
Downy Woodpecker			0.00	0.33	0.17
Pileated Woodpecker			0.17	0.33	0.25
Eastern Wood-Pewee			0.50	0.67	0.58
Alder Flycatcher			0.17	0.00	0.08
Eastern Phoebe			0.17	0.00	0.08
Great Crested Flycatcher			0.00	0.17	0.08
Red-eyed Vireo			0.83	0.17	0.50
Blue Jay			0.83	0.67	0.75
American Crow			0.17	0.17	0.17
Black-capped Chickadee			0.83	0.33	0.58
Tufted Titmouse			1.17	0.00	0.58
White-breasted Nuthatch			0.17	0.33	0.25
Blue-gray Gnatcatcher			0.33	0.00	0.17
Veery			0.67	0.67	0.67
Hermit Thrush			0.00	0.17	0.08
Wood Thrush			1.83	1.00	1.42
American Robin			0.67	0.50	0.58
Gray Catbird			0.00	0.17	0.08
Cedar Waxwing			0.33	0.00	0.17
Blue-winged Warbler			0.17	0.00	0.08
Chestnut-sided Warbler			0.17	0.00	0.08
Black-and-white Warbler			0.33	0.00	0.17
Ovenbird			1.33	0.83	1.08
Louisiana Waterthrush			0.17	0.00	0.08
Common Yellowthroat			1.33	0.33	0.83
Scarlet Tanager			0.83	0.50	0.67
Eastern Towhee			0.33	0.17	0.25
Chipping Sparrow			0.17	0.00	0.08
Northern Cardinal			0.00	0.17	0.08
Rose-breasted Grosbeak			0.00	0.33	0.17
Brown-headed Cowbird			0.17	0.33	0.25
Baltimore Oriole			0.00	0.17	0.08
American Goldfinch			0.67	0.17	0.42
			6	6	
<i>Points Surveyed:</i>					
<i>Ave # Birds Per Point:</i>			15.00	10.50	12.75
<i>Species Richness:</i>			28	27	37
<i>Shannon Diversity:</i>			3.03	3.10	

Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Burgoyne's Headquarters

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.20		0.20	0.00	0.13
Turkey Vulture	0.00		0.00	0.20	0.07
Mourning Dove	0.60		0.60	0.00	0.40
Black-billed Cuckoo	0.00		0.20	0.00	0.07
Red-bellied Woodpecker	1.00		0.20	0.00	0.40
Yellow-bellied Sapsucker	0.40		0.20	0.40	0.33
Downy Woodpecker	0.00		0.20	0.00	0.07
Northern Flicker (Yellow-shafted Flicker)	0.60		0.00	0.00	0.20
Pileated Woodpecker	0.20		0.00	0.00	0.07
Eastern Wood-Pewee	0.40		0.40	0.00	0.27
Alder Flycatcher	0.00		0.20	0.00	0.07
Least Flycatcher	0.00		0.40	0.00	0.13
Great Crested Flycatcher	0.20		0.00	0.00	0.07
<i>Eastern Kingbird</i>	<i>1.00</i>		<i>0.60</i>	<i>0.40</i>	<i>0.67</i>
Warbling Vireo	0.20		0.20	0.00	0.13
Red-eyed Vireo	0.00		0.00	0.40	0.13
Blue Jay	0.40		0.20	0.00	0.20
American Crow	0.20		0.20	0.20	0.20
Common Raven	0.20		0.00	0.00	0.07
<i>Tree Swallow</i>	<i>1.00</i>		<i>1.00</i>	<i>0.40</i>	<i>0.80</i>
Black-capped Chickadee	1.00		0.00	0.00	0.33
Tufted Titmouse	0.60		0.00	0.00	0.20
White-breasted Nuthatch	0.40		0.00	0.00	0.13
Blue-gray Gnatcatcher	0.00		0.00	0.20	0.07
Eastern Bluebird	0.60		0.00	0.00	0.20
Veery	0.20		0.00	0.00	0.07
Wood Thrush	0.80		0.00	0.20	0.33
<i>American Robin</i>	<i>1.00</i>		<i>0.80</i>	<i>0.40</i>	<i>0.73</i>
Gray Catbird	0.60		0.20	0.20	0.33
<i>Cedar Waxwing</i>	<i>1.80</i>		<i>0.60</i>	<i>0.20</i>	<i>0.87</i>
Blue-winged Warbler	0.00		0.60	0.40	0.33
Yellow Warbler	0.00		0.20	0.60	0.27
Black-and-white Warbler	0.00		0.00	0.20	0.07
American Redstart	0.40		0.00	0.00	0.13
Ovenbird	0.20		0.00	0.00	0.07
<i>Common Yellowthroat</i>	<i>0.60</i>		<i>1.00</i>	<i>1.20</i>	<i>0.93</i>
American Tree Sparrow	0.00		0.00	0.20	0.07
<i>Chipping Sparrow</i>	<i>1.20</i>		<i>0.80</i>	<i>0.80</i>	<i>0.93</i>
<i>Field Sparrow</i>	<i>1.40</i>		<i>2.00</i>	<i>1.60</i>	<i>1.67</i>
Vesper Sparrow	0.00		0.40	0.00	0.13
Savannah Sparrow	0.00		0.40	0.00	0.13
<i>Song Sparrow</i>	<i>1.40</i>		<i>1.00</i>	<i>0.20</i>	<i>0.87</i>
Northern Cardinal	0.20		0.00	0.00	0.07
Rose-breasted Grosbeak	0.20		0.20	0.20	0.20
Indigo Bunting	0.00		0.20	0.00	0.07

Appendix B. Site Summaries (continued).

<i>Red-winged Blackbird</i>	3.00	2.40	1.20	2.20
Eastern Meadowlark	0.20	0.40	0.60	0.40
Common Grackle	0.60	0.00	0.00	0.20
Orchard Oriole	0.60	0.00	0.20	0.27
Baltimore Oriole	0.20	0.40	0.40	0.33
<i>American Goldfinch</i>	1.60	1.80	0.60	1.33
<hr/>				
<i>Points Surveyed:</i>	5	5	5	
<i>Ave # Birds Per Point:</i>	25.40	18.20	11.60	18.40
<i>Species Richness:</i>	37	31	25	51
<i>Shannon Diversity:</i>	3.32	3.09	2.97	
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Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Freeman Farm

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>Mean</i>
Canada Goose	0.10	0.10	0.10	0.00	0.08
Great Blue Heron	0.30	0.10	0.00	0.00	0.10
Red-tailed Hawk	0.10	0.00	0.00	0.00	0.03
American Kestrel	0.30	0.00	0.00	0.10	0.10
Mourning Dove	0.30	0.40	0.50	0.30	0.38
Black-billed Cuckoo	0.40	0.00	0.00	0.10	0.13
Yellow-billed Cuckoo	0.10	0.00	0.00	0.00	0.03
Ruby-throated Hummingbird	0.10	0.00	0.00	0.00	0.03
Red-bellied Woodpecker	0.10	0.00	0.10	0.00	0.05
Yellow-bellied Sapsucker	0.00	0.00	0.00	0.10	0.03
Downy Woodpecker	0.00	0.00	0.10	0.00	0.03
Northern Flicker (Yellow-shafted Flicker)	0.20	0.10	0.20	0.00	0.13
Pileated Woodpecker	0.00	0.00	0.00	0.30	0.08
Eastern Wood-Pewee	0.20	0.20	0.30	0.00	0.18
Alder Flycatcher	0.00	0.10	0.10	0.00	0.05
Willow Flycatcher	0.00	0.00	0.10	0.00	0.03
Eastern Phoebe	0.00	0.00	0.00	0.10	0.03
Great Crested Flycatcher	0.40	0.60	0.40	0.10	0.38
Eastern Kingbird	0.50	0.20	0.30	0.70	0.43
Yellow-throated Vireo	0.00	0.10	0.10	0.00	0.05
Warbling Vireo	0.10	0.00	0.00	0.00	0.03
Red-eyed Vireo	0.40	0.40	0.10	0.00	0.23
Blue Jay	0.40	0.30	0.20	0.50	0.35
<i>American Crow</i>	<i>1.70</i>	<i>0.90</i>	<i>0.90</i>	<i>1.50</i>	<i>1.25</i>
Tree Swallow	0.50	0.80	0.30	0.00	0.40
Black-capped Chickadee	0.40	0.40	0.00	0.90	0.43
Tufted Titmouse	0.70	0.30	0.10	0.00	0.28
White-breasted Nuthatch	0.10	0.10	0.00	0.30	0.13
House Wren	0.30	0.00	0.10	0.20	0.15
Eastern Bluebird	0.30	0.00	0.10	0.00	0.10
Hermit Thrush	0.00	0.00	0.10	0.00	0.03
Wood Thrush	0.00	0.20	0.00	0.00	0.05
American Robin	0.00	0.40	0.70	0.50	0.40
Gray Catbird	0.00	0.10	0.20	0.00	0.08
Northern Mockingbird	0.00	0.00	0.00	0.10	0.03
European Starling	0.20	0.00	0.00	0.00	0.05
Cedar Waxwing	0.10	0.80	0.00	0.00	0.23
Blue-winged Warbler	0.70	0.40	0.10	0.10	0.33
Golden-winged Warbler	0.00	0.10	0.00	0.00	0.03
Yellow Warbler	0.30	0.20	0.30	0.10	0.23
Chestnut-sided Warbler	0.20	0.10	0.50	0.00	0.20
Prairie Warbler	0.00	0.30	0.30	0.00	0.15
Ovenbird	0.50	0.40	0.40	0.10	0.35
<i>Common Yellowthroat</i>	<i>1.00</i>	<i>0.80</i>	<i>0.80</i>	<i>1.60</i>	<i>1.05</i>
Scarlet Tanager	0.20	0.00	0.00	0.00	0.05

Appendix B. Site Summaries (continued).

Eastern Towhee	0.20	0.00	0.40	0.40	0.25
<i>Chipping Sparrow</i>	<i>0.40</i>	<i>0.70</i>	<i>0.60</i>	<i>0.80</i>	<i>0.63</i>
<i>Field Sparrow</i>	<i>1.60</i>	<i>0.90</i>	<i>1.60</i>	<i>1.50</i>	<i>1.40</i>
Vesper Sparrow	0.00	0.00	0.10	0.00	0.03
<i>Song Sparrow</i>	<i>2.30</i>	<i>2.00</i>	<i>1.10</i>	<i>1.70</i>	<i>1.78</i>
Northern Cardinal	0.50	0.20	0.30	0.20	0.30
Indigo Bunting	0.10	0.00	0.00	0.00	0.03
<i>Bobolink</i>	<i>0.30</i>	<i>1.20</i>	<i>1.10</i>	<i>0.90</i>	<i>0.88</i>
<i>Red-winged Blackbird</i>	<i>0.70</i>	<i>1.20</i>	<i>2.10</i>	<i>2.60</i>	<i>1.65</i>
<i>Eastern Meadowlark</i>	<i>0.90</i>	<i>0.30</i>	<i>0.70</i>	<i>1.20</i>	<i>0.78</i>
<i>Baltimore Oriole</i>	<i>0.90</i>	<i>0.40</i>	<i>0.20</i>	<i>0.40</i>	<i>0.48</i>
Purple Finch	0.10	0.00	0.00	0.00	0.03
<i>American Goldfinch</i>	<i>0.60</i>	<i>1.10</i>	<i>0.90</i>	<i>1.10</i>	<i>0.93</i>
<hr/>					
<i>Points Surveyed:</i>	10	10	10	10	
<i>Ave # Birds Per Point:</i>	19.80	16.90	16.60	18.50	17.95
<i>Species Richness:</i>	43	36	38	29	58
<i>Shannon Diversity:</i>	3.39	3.24	3.22	2.93	
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Appendix B. Site Summaries (continued).

Saratoga NHP

SARA Neilson Farm

<i>Common Name</i>	<i>Relative Abundance (birds per point)</i>				<i>Mean</i>
	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	
Canada Goose	0.20		0.00	0.00	0.07
Northern Bobwhite	0.10		0.00	0.00	0.03
Great Blue Heron	0.00		0.00	0.10	0.03
Northern Harrier	0.10		0.00	0.00	0.03
American Kestrel	0.10		0.20	0.10	0.13
American Woodcock	0.00		0.00	0.10	0.03
Mourning Dove	0.00		0.50	0.20	0.23
Red-bellied Woodpecker	0.10		0.00	0.00	0.03
Pileated Woodpecker	0.10		0.00	0.00	0.03
Eastern Wood-Pewee	0.00		0.20	0.10	0.10
Alder Flycatcher	0.00		0.10	0.00	0.03
Willow Flycatcher	0.20		0.70	0.00	0.30
Least Flycatcher	0.00		0.00	0.10	0.03
Great Crested Flycatcher	0.00		0.00	0.10	0.03
Eastern Kingbird	0.60		0.20	0.30	0.37
Red-eyed Vireo	0.00		0.00	0.10	0.03
Blue Jay	0.20		0.20	0.00	0.13
<i>American Crow</i>	<i>0.50</i>		<i>0.90</i>	<i>2.30</i>	<i>1.23</i>
Tree Swallow	0.00		0.20	0.00	0.07
Black-capped Chickadee	0.10		0.00	0.10	0.07
Tufted Titmouse	0.30		0.00	0.00	0.10
White-breasted Nuthatch	0.10		0.00	0.00	0.03
House Wren	0.50		0.00	0.00	0.17
Eastern Bluebird	0.20		0.00	0.00	0.07
American Robin	0.60		0.60	0.10	0.43
Gray Catbird	0.20		0.10	0.30	0.20
Brown Thrasher	0.20		0.00	0.00	0.07
<i>European Starling</i>	<i>1.40</i>		<i>0.00</i>	<i>0.70</i>	<i>0.70</i>
<i>Cedar Waxwing</i>	<i>1.00</i>		<i>0.60</i>	<i>0.10</i>	<i>0.57</i>
Blue-winged Warbler	0.10		0.40	0.00	0.17
Yellow Warbler	0.40		0.40	0.10	0.30
Prairie Warbler	0.20		0.00	0.00	0.07
American Redstart	0.10		0.00	0.00	0.03
<i>Common Yellowthroat</i>	<i>0.70</i>		<i>1.00</i>	<i>1.50</i>	<i>1.07</i>
Scarlet Tanager	0.30		0.00	0.00	0.10
Eastern Towhee	0.30		0.20	0.30	0.27
Chipping Sparrow	0.00		0.10	0.00	0.03
<i>Field Sparrow</i>	<i>0.60</i>		<i>0.60</i>	<i>0.70</i>	<i>0.63</i>
Savannah Sparrow	0.20		0.00	0.20	0.13
<i>Song Sparrow</i>	<i>1.50</i>		<i>1.30</i>	<i>2.50</i>	<i>1.77</i>
Northern Cardinal	0.10		0.40	0.00	0.17
Rose-breasted Grosbeak	0.00		0.10	0.00	0.03
<i>Bobolink</i>	<i>3.30</i>		<i>2.20</i>	<i>6.10</i>	<i>3.87</i>
<i>Red-winged Blackbird</i>	<i>2.20</i>		<i>5.60</i>	<i>5.20</i>	<i>4.33</i>
<i>Eastern Meadowlark</i>	<i>0.60</i>		<i>1.30</i>	<i>2.80</i>	<i>1.57</i>

Appendix B. Site Summaries (continued).

Common Grackle	0.10	0.00	0.10	0.07
Baltimore Oriole	0.00	0.40	0.00	0.13
American Goldfinch	0.40	0.80	1.20	0.80
<hr/>				
<i>Points Surveyed:</i>	10	10	10	
<i>Ave # Birds Per Point:</i>	17.90	19.30	25.50	20.90
<i>Species Richness:</i>	36	26	26	48
<i>Shannon Diversity:</i>	3.02	2.65	2.36	
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Appendix C. Avian Forest Scorecard by Site and Year.

This appendix presents results of the avian forest scorecard for each site by year. Please refer to the Introduction for some important caveats pertaining to the scorecard.

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Acadia NP - ACAD Schoodic

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	24%	Good
Single Brooded	53%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	18%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	29%	Good
Omnivore	29%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	29%	Caution
Forest-ground Nester	24%	Good
Interior Forest Obligate	41%	Good
Shrub Nester	24%	Caution

2007 Acadia NP - ACAD-Giant Slide Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	48%	Sig Concern
Single Brooded	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	20%	Good
Ground Gleaner	12%	Good
High Canopy Forager	8%	Caution
Low Canopy Forager	16%	Caution
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	44%	Good
Forest-ground Nester	16%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	12%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2008 Acadia NP - ACAD-Giant Slide Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	43%	Sig Concern
Single Brooded	57%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	13%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	22%	Caution
Omnivore	22%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	43%	Good
Forest-ground Nester	17%	Caution
Interior Forest Obligate	52%	Good
Shrub Nester	9%	Good

2009 Acadia NP - ACAD-Giant Slide Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	13%	Caution
Resident	48%	Sig Concern
Single Brooded	61%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	22%	Caution
Omnivore	26%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	52%	Good
Forest-ground Nester	17%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	9%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Acadia NP - ACAD-Witch Hole Pond

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	64%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	9%	Caution
Ground Gleaner	14%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	18%	Caution
Omnivore	32%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	32%	Caution
Forest-ground Nester	27%	Good
Interior Forest Obligate	32%	Caution
Shrub Nester	14%	Good

2007 Acadia NP - ACAD-Seal Cove Center

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	45%	Sig Concern
Single Brooded	65%	Caution

Integrity Element: Functional

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

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	45%	Good
Forest-ground Nester	15%	Caution
Interior Forest Obligate	65%	Good
Shrub Nester	10%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2008 Acadia NP - ACAD-Seal Cove Center

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	42%	Sig Concern
Single Brooded	63%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	13%	Good
High Canopy Forager	8%	Caution
Low Canopy Forager	25%	Good
Omnivore	21%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	42%	Good
Forest-ground Nester	13%	Caution
Interior Forest Obligate	54%	Good
Shrub Nester	17%	Good

2009 Acadia NP - ACAD-Seal Cove Center

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	38%	Caution
Single Brooded	57%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	10%	Good
High Canopy Forager	10%	Caution
Low Canopy Forager	19%	Caution
Omnivore	19%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	38%	Good
Forest-ground Nester	14%	Caution
Interior Forest Obligate	52%	Good
Shrub Nester	14%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Acadia NP - ACAD-Seal Cove East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	36%	Caution
Single Brooded	52%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	8%	Caution
Ground Gleaner	12%	Good
High Canopy Forager	12%	Caution
Low Canopy Forager	20%	Caution
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	44%	Good
Forest-ground Nester	12%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	16%	Good

2008 Acadia NP - ACAD-Seal Cove East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	41%	Caution
Single Brooded	59%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	26%	Good
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	7%	Caution
Interior Forest Obligate	44%	Good
Shrub Nester	26%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Acadia NP - ACAD-Seal Cove East

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	52%	Caution

Integrity Element: Functional

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

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	45%	Good
Forest-ground Nester	10%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	14%	Good

2009 Acadia NP - ACAD - Youngs Mtn

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

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2006 Eleanor Roosevelt NHS - ELRO

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	42%	Sig Concern
Single Brooded	42%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	26%	Good
Ground Gleaner	11%	Good
High Canopy Forager	16%	Good
Low Canopy Forager	5%	Sig Concern
Omnivore	37%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	21%	Caution
Forest-ground Nester	16%	Caution
Interior Forest Obligate	37%	Good
Shrub Nester	32%	Sig Concern

2007 Eleanor Roosevelt NHS - ELRO

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	46%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	18%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Caution
Low Canopy Forager	0%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Caution
Forest-ground Nester	11%	Caution
Interior Forest Obligate	29%	Caution
Shrub Nester	25%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2008 Eleanor Roosevelt NHS - ELRO

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	43%	Sig Concern
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	22%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	4%	Sig Concern
Omnivore	43%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	26%	Caution
Forest-ground Nester	9%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	26%	Sig Concern

2009 Eleanor Roosevelt NHS - ELRO

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	32%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	4%	Sig Concern
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	20%	Caution
Forest-ground Nester	16%	Caution
Interior Forest Obligate	24%	Caution
Shrub Nester	24%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2006 Home of Franklin D. Roosevelt NHS - HOFR

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	40%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	20%	Good
Ground Gleaner	12%	Good
High Canopy Forager	8%	Caution
Low Canopy Forager	8%	Sig Concern
Omnivore	32%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	20%	Caution
Forest-ground Nester	12%	Caution
Interior Forest Obligate	24%	Caution
Shrub Nester	24%	Caution

2007 Home of Franklin D. Roosevelt NHS - HOFR

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	34%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	0%	Sig Concern
High Canopy Forager	10%	Caution
Low Canopy Forager	10%	Sig Concern
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	34%	Caution
Forest-ground Nester	3%	Sig Concern
Interior Forest Obligate	17%	Caution
Shrub Nester	24%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2008 Home of Franklin D. Roosevelt NHS - HOFR

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	13%	Caution
Resident	52%	Sig Concern
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	22%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	9%	Sig Concern
Omnivore	26%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	9%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	17%	Good

2006 Marsh-Billings-Rockefeller NHP - MABI East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	18%	Sig Concern
Resident	36%	Caution
Single Brooded	59%	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	18%	Good
Low Canopy Forager	9%	Sig Concern
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	45%	Good
Forest-ground Nester	14%	Caution
Interior Forest Obligate	41%	Good
Shrub Nester	9%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Marsh-Billings-Rockefeller NHP - MABI East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	30%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	23%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	13%	Sig Concern
Omnivore	30%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	27%	Caution
Forest-ground Nester	20%	Good
Interior Forest Obligate	50%	Good
Shrub Nester	20%	Caution

2008 Marsh-Billings-Rockefeller NHP - MABI East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	13%	Caution
Resident	29%	Caution
Single Brooded	58%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	13%	Good
High Canopy Forager	17%	Good
Low Canopy Forager	13%	Sig Concern
Omnivore	25%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	38%	Good
Forest-ground Nester	8%	Caution
Interior Forest Obligate	46%	Good
Shrub Nester	17%	Good

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Marsh-Billings-Rockefeller NHP - MABI East

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	14%	Caution
Resident	27%	Good
Single Brooded	64%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	14%	Good
High Canopy Forager	18%	Good
Low Canopy Forager	14%	Sig Concern
Omnivore	23%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	14%	Caution
Interior Forest Obligate	45%	Good
Shrub Nester	14%	Good

2006 Marsh-Billings-Rockefeller NHP - MABI Northwest

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	26%	Good
Single Brooded	67%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	11%	Good
High Canopy Forager	15%	Good
Low Canopy Forager	19%	Caution
Omnivore	26%	Good

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	56%	Good
Shrub Nester	19%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Marsh-Billings-Rockefeller NHP - MABI Northwest

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Good
Resident	32%	Caution
Single Brooded	55%	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	16%	Caution
Omnivore	32%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	39%	Good
Forest-ground Nester	13%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	13%	Good

2008 Marsh-Billings-Rockefeller NHP - MABI Northwest

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	36%	Caution
Single Brooded	60%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	16%	Good
Low Canopy Forager	12%	Sig Concern
Omnivore	32%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	40%	Good
Forest-ground Nester	16%	Caution
Interior Forest Obligate	40%	Good
Shrub Nester	20%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Marsh-Billings-Rockefeller NHP - MABI Northwest

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	67%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	22%	Good
Ground Gleaner	11%	Good
High Canopy Forager	15%	Good
Low Canopy Forager	19%	Caution
Omnivore	26%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	15%	Caution
Interior Forest Obligate	48%	Good
Shrub Nester	15%	Good

2006 Marsh-Billings-Rockefeller NHP - MABI South

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	59%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	15%	Caution
Omnivore	37%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	7%	Caution
Interior Forest Obligate	30%	Caution
Shrub Nester	22%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Marsh-Billings-Rockefeller NHP - MABI South

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	56%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	13%	Sig Concern
Omnivore	34%	Caution

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	31%	Caution
Shrub Nester	19%	Caution

2008 Marsh-Billings-Rockefeller NHP - MABI South

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	4%	Good
Resident	22%	Good
Single Brooded	52%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	7%	Caution
Ground Gleaner	7%	Caution
High Canopy Forager	15%	Good
Low Canopy Forager	22%	Good
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	41%	Good
Forest-ground Nester	11%	Caution
Interior Forest Obligate	33%	Caution
Shrub Nester	30%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Marsh-Billings-Rockefeller NHP - MABI South

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	33%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	11%	Good
High Canopy Forager	22%	Good
Low Canopy Forager	11%	Sig Concern
Omnivore	22%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	33%	Caution
Forest-ground Nester	17%	Caution
Interior Forest Obligate	44%	Good
Shrub Nester	22%	Caution

2006 Minute Man NHP - MIMA Hartwell Tavern

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	31%	Caution
Single Brooded	35%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	4%	Sig Concern
Low Canopy Forager	12%	Sig Concern
Omnivore	50%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	19%	Caution
Forest-ground Nester	8%	Caution
Interior Forest Obligate	19%	Caution
Shrub Nester	35%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Minute Man NHP - MIMA Hartwell Tavern

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	42%	Sig Concern
Single Brooded	46%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	19%	Good
Ground Gleaner	4%	Sig Concern
High Canopy Forager	8%	Caution
Low Canopy Forager	12%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	31%	Caution
Forest-ground Nester	4%	Sig Concern
Interior Forest Obligate	19%	Caution
Shrub Nester	27%	Sig Concern

2008 Minute Man NHP - MIMA Hartwell Tavern

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	29%	Caution
Single Brooded	36%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Caution
Low Canopy Forager	14%	Caution
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	14%	Caution
Forest-ground Nester	4%	Sig Concern
Interior Forest Obligate	11%	Caution
Shrub Nester	43%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Minute Man NHP - MIMA Hartwell Tavern

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	3%	Caution
Nest Predator / Brood Parasite	9%	Good
Resident	38%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	3%	Sig Concern
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	9%	Sig Concern
Omnivore	47%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Caution
Forest-ground Nester	3%	Sig Concern
Interior Forest Obligate	16%	Caution
Shrub Nester	34%	Sig Concern

2006 Minute Man NHP - MIMA Miriam's Corner

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	3%	Caution
Nest Predator / Brood Parasite	9%	Good
Resident	33%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	15%	Caution
Omnivore	42%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	6%	Caution
Interior Forest Obligate	18%	Caution
Shrub Nester	24%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Minute Man NHP - MIMA Miriam's Corner

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	11%	Caution
Resident	39%	Caution
Single Brooded	39%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	4%	Sig Concern
High Canopy Forager	0%	Sig Concern
Low Canopy Forager	14%	Caution
Omnivore	54%	Sig Concern

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	21%	Caution
Forest-ground Nester	7%	Caution
Interior Forest Obligate	21%	Caution
Shrub Nester	32%	Sig Concern

2008 Minute Man NHP - MIMA Miriam's Corner

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	12%	Caution
Resident	31%	Caution
Single Brooded	42%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	8%	Caution
Ground Gleaner	8%	Caution
High Canopy Forager	12%	Caution
Low Canopy Forager	12%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	27%	Caution
Forest-ground Nester	4%	Sig Concern
Interior Forest Obligate	12%	Caution
Shrub Nester	35%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Minute Man NHP - MIMA Miriam's Corner

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	2%	Caution
Nest Predator / Brood Parasite	7%	Good
Resident	27%	Good
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	7%	Caution
Ground Gleaner	5%	Caution
High Canopy Forager	7%	Caution
Low Canopy Forager	17%	Caution
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	27%	Caution
Forest-ground Nester	2%	Sig Concern
Interior Forest Obligate	12%	Caution
Shrub Nester	27%	Sig Concern

2006 Minute Man NHP - MIMA The Bluff

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	10%	Sig Concern
Nest Predator / Brood Parasite	10%	Caution
Resident	45%	Sig Concern
Single Brooded	35%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	0%	Sig Concern
High Canopy Forager	0%	Sig Concern
Low Canopy Forager	15%	Caution
Omnivore	45%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	10%	Caution
Shrub Nester	25%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Minute Man NHP - MIMA The Bluff

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	8%	Sig Concern
Nest Predator / Brood Parasite	12%	Caution
Resident	46%	Sig Concern
Single Brooded	27%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	4%	Sig Concern
High Canopy Forager	4%	Sig Concern
Low Canopy Forager	15%	Caution
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	19%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	8%	Sig Concern
Shrub Nester	31%	Sig Concern

2008 Minute Man NHP - MIMA The Bluff

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	4%	Caution
Nest Predator / Brood Parasite	13%	Caution
Resident	38%	Caution
Single Brooded	38%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	0%	Sig Concern
High Canopy Forager	8%	Caution
Low Canopy Forager	8%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	13%	Caution
Shrub Nester	33%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Minute Man NHP - MIMA The Bluff

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Caution
Resident	28%	Good
Single Brooded	45%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	0%	Sig Concern
High Canopy Forager	10%	Caution
Low Canopy Forager	10%	Sig Concern
Omnivore	52%	Sig Concern

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	31%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	10%	Caution
Shrub Nester	34%	Sig Concern

2008 Morristown NHP - MORR Mt. Kemble

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	34%	Caution
Single Brooded	37%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	11%	Sig Concern
Omnivore	40%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	20%	Caution
Forest-ground Nester	11%	Caution
Interior Forest Obligate	20%	Caution
Shrub Nester	26%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Morristown NHP - MORR Mt. Kemble

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	31%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	16%	Good
Ground Gleaner	9%	Good
High Canopy Forager	9%	Caution
Low Canopy Forager	13%	Sig Concern
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	22%	Caution
Forest-ground Nester	13%	Caution
Interior Forest Obligate	25%	Caution
Shrub Nester	22%	Caution

2006 Morristown NHP - MORR Primrose Brook

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	52%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	4%	Sig Concern
Omnivore	43%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	35%	Caution
Forest-ground Nester	13%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	26%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Morristown NHP - MORR Primrose Brook

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	43%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	10%	Good
High Canopy Forager	7%	Sig Concern
Low Canopy Forager	13%	Sig Concern
Omnivore	33%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	23%	Caution
Forest-ground Nester	17%	Caution
Interior Forest Obligate	27%	Caution
Shrub Nester	20%	Caution

2008 Morristown NHP - MORR Primrose Brook

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	9%	Good
Resident	26%	Good
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	9%	Caution
High Canopy Forager	13%	Good
Low Canopy Forager	0%	Sig Concern
Omnivore	48%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	30%	Caution
Forest-ground Nester	13%	Caution
Interior Forest Obligate	22%	Caution
Shrub Nester	22%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Morristown NHP - MORR Primrose Brook

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	42%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	8%	Caution
High Canopy Forager	8%	Caution
Low Canopy Forager	4%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	29%	Caution
Forest-ground Nester	13%	Caution
Interior Forest Obligate	25%	Caution
Shrub Nester	29%	Sig Concern

2006 Morristown NHP - MORR Soldier's Huts

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	22%	Good
Single Brooded	59%	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	7%	Caution
Low Canopy Forager	19%	Caution
Omnivore	30%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	22%	Caution
Forest-ground Nester	22%	Good
Interior Forest Obligate	41%	Good
Shrub Nester	22%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Morristown NHP - MORR Soldier's Huts

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	12%	Caution
Resident	19%	Good
Single Brooded	54%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	12%	Good
Ground Gleaner	12%	Good
High Canopy Forager	12%	Caution
Low Canopy Forager	8%	Sig Concern
Omnivore	42%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	31%	Caution
Forest-ground Nester	19%	Good
Interior Forest Obligate	31%	Caution
Shrub Nester	23%	Caution

2007 Saint-Gaudens NHS - Saint-Gaudens

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	18%	Good
Single Brooded	61%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	4%	Sig Concern
High Canopy Forager	11%	Caution
Low Canopy Forager	21%	Caution
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	32%	Caution
Forest-ground Nester	14%	Caution
Interior Forest Obligate	36%	Good
Shrub Nester	32%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2008 Saint-Gaudens NHS - Saint-Gaudens

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	16%	Good
Single Brooded	58%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	8%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	18%	Caution
Omnivore	34%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	32%	Caution
Forest-ground Nester	16%	Caution
Interior Forest Obligate	32%	Caution
Shrub Nester	26%	Sig Concern

2009 Saint-Gaudens NHS - Saint-Gaudens

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	30%	Caution
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	9%	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	12%	Caution
Interior Forest Obligate	42%	Good
Shrub Nester	27%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Saratoga NHP - SARA Middle Ravine

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	28%	Good
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	8%	Caution
Ground Gleaner	11%	Good
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	14%	Sig Concern
Omnivore	44%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Caution
Forest-ground Nester	11%	Caution
Interior Forest Obligate	22%	Caution
Shrub Nester	25%	Sig Concern

2008 Saratoga NHP - SARA Middle Ravine

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	10%	Good
Resident	32%	Caution
Single Brooded	45%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	13%	Sig Concern
Omnivore	45%	Caution

Integrity Element: Structural

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

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2006 Saratoga NHP - SARA Wilkinson Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	15%	Sig Concern
Resident	62%	Sig Concern
Single Brooded	15%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	23%	Good
Ground Gleaner	0%	Sig Concern
High Canopy Forager	0%	Sig Concern
Low Canopy Forager	0%	Sig Concern
Omnivore	46%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	23%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	15%	Caution
Shrub Nester	23%	Caution

2008 Saratoga NHP - SARA Wilkinson Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	29%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	13%	Good
Ground Gleaner	3%	Sig Concern
High Canopy Forager	8%	Caution
Low Canopy Forager	13%	Sig Concern
Omnivore	37%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	24%	Caution
Forest-ground Nester	13%	Caution
Interior Forest Obligate	26%	Caution
Shrub Nester	32%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Saratoga NHP - SARA Wilkinson Trail

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	8%	Good
Resident	38%	Caution
Single Brooded	50%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	12%	Good
High Canopy Forager	8%	Caution
Low Canopy Forager	12%	Sig Concern
Omnivore	38%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	19%	Caution
Forest-ground Nester	15%	Caution
Interior Forest Obligate	27%	Caution
Shrub Nester	31%	Sig Concern

2008 Saratoga NHP - SARA Bemis Heights

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	29%	Caution
Single Brooded	57%	Caution

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	11%	Caution
Ground Gleaner	4%	Sig Concern
High Canopy Forager	11%	Caution
Low Canopy Forager	14%	Caution
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	25%	Caution
Forest-ground Nester	18%	Caution
Interior Forest Obligate	25%	Caution
Shrub Nester	29%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Saratoga NHP - SARA Bemis Heights

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	37%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	7%	Caution
High Canopy Forager	7%	Caution
Low Canopy Forager	7%	Sig Concern
Omnivore	52%	Sig Concern

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	22%	Caution
Shrub Nester	26%	Sig Concern

2008 Saugus Iron Works NHS - Saugus Iron Works

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	14%	Sig Concern
Nest Predator / Brood Parasite	14%	Caution
Resident	38%	Caution
Single Brooded	14%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	5%	Caution
Ground Gleaner	5%	Caution
High Canopy Forager	0%	Sig Concern
Low Canopy Forager	5%	Sig Concern
Omnivore	52%	Sig Concern

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	19%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	0%	Sig Concern
Shrub Nester	24%	Caution

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Saugus Iron Works NHS - Saugus Iron Works

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	6%	Caution
Nest Predator / Brood Parasite	12%	Caution
Resident	30%	Caution
Single Brooded	21%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	3%	Sig Concern
Ground Gleaner	3%	Sig Concern
High Canopy Forager	3%	Sig Concern
Low Canopy Forager	12%	Sig Concern
Omnivore	39%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	12%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	0%	Sig Concern
Shrub Nester	21%	Caution

2006 Vanderbilt Mansion NHS - VAMA

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	14%	Caution
Resident	32%	Caution
Single Brooded	36%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	5%	Caution
High Canopy Forager	9%	Caution
Low Canopy Forager	14%	Sig Concern
Omnivore	36%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	32%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	14%	Caution
Shrub Nester	32%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2007 Vanderbilt Mansion NHS - VAMA

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	11%	Caution
Resident	39%	Caution
Single Brooded	39%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	22%	Good
Ground Gleaner	17%	Good
High Canopy Forager	6%	Sig Concern
Low Canopy Forager	11%	Sig Concern
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	17%	Caution
Forest-ground Nester	11%	Caution
Interior Forest Obligate	28%	Caution
Shrub Nester	22%	Caution

2008 Vanderbilt Mansion NHS - VAMA

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	5%	Good
Resident	35%	Caution
Single Brooded	30%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	15%	Good
Ground Gleaner	10%	Good
High Canopy Forager	10%	Caution
Low Canopy Forager	10%	Sig Concern
Omnivore	30%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	15%	Caution
Forest-ground Nester	10%	Caution
Interior Forest Obligate	20%	Caution
Shrub Nester	30%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Vanderbilt Mansion NHS - VAMA

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	6%	Good
Resident	33%	Caution
Single Brooded	44%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	17%	Good
Ground Gleaner	6%	Caution
High Canopy Forager	11%	Caution
Low Canopy Forager	6%	Sig Concern
Omnivore	28%	Good

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	28%	Caution
Forest-ground Nester	6%	Caution
Interior Forest Obligate	28%	Caution
Shrub Nester	28%	Sig Concern

2006 Weir Farm NHS - Weir Farm

Integrity Element: Compositional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Exotic	0%	Good
Nest Predator / Brood Parasite	7%	Good
Resident	31%	Caution
Single Brooded	48%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	10%	Caution
Ground Gleaner	7%	Caution
High Canopy Forager	14%	Good
Low Canopy Forager	14%	Sig Concern
Omnivore	38%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	28%	Caution
Forest-ground Nester	7%	Caution
Interior Forest Obligate	17%	Caution
Shrub Nester	24%	Sig Concern

Appendix C. Avian Forest Scorecard by Site and Year (continued).

2009 Weir Farm NHS - Weir Farm

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	41%	Sig Concern

Integrity Element: Functional

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Bark Prober	14%	Good
Ground Gleaner	0%	Sig Concern
High Canopy Forager	14%	Good
Low Canopy Forager	14%	Sig Concern
Omnivore	41%	Caution

Integrity Element: Structural

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Canopy Nester	23%	Caution
Forest-ground Nester	0%	Sig Concern
Interior Forest Obligate	18%	Caution
Shrub Nester	32%	Sig Concern

Appendix D. Avian Grassland Scorecard by Site and Year.

This appendix presents results of the avian grassland scorecard for each grassland site by year. Please refer to the Introduction for some important caveats pertaining to the scorecard.

Appendix D. Avian Grassland Scorecard by Site and Year (continued).

2006 Saratoga NHP - SARA Burgoyne's Headquarters

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	38%	Caution
Exotic	0%	Good
Grassland Obligate	3%	Sig Concern
Shrub-dependent	5%	Good

2006 Saratoga NHP - SARA Freeman Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	30%	Caution
Exotic	2%	Caution
Grassland Obligate	5%	Sig Concern
Shrub-dependent	16%	Caution

2006 Saratoga NHP - SARA Neilson Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	25%	Caution
Exotic	3%	Caution
Grassland Obligate	8%	Caution
Shrub-dependent	19%	Caution

2007 Saratoga NHP - SARA Freeman Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	28%	Caution
Exotic	0%	Good
Grassland Obligate	6%	Caution
Shrub-dependent	19%	Caution

Appendix D. Avian Grassland Scorecard by Site and Year (continued).

2008 Saratoga NHP - SARA Burgoyne's Headquarters

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	39%	Caution
Exotic	0%	Good
Grassland Obligate	10%	Caution
Shrub-dependent	16%	Caution

2008 Saratoga NHP - SARA Freeman Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	29%	Caution
Exotic	0%	Good
Grassland Obligate	8%	Caution
Shrub-dependent	18%	Caution

2008 Saratoga NHP - SARA Neilson Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	38%	Caution
Exotic	0%	Good
Grassland Obligate	8%	Caution
Shrub-dependent	19%	Caution

2009 Saratoga NHP - SARA Burgoyne's Headquarters

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	40%	Caution
Exotic	0%	Good
Grassland Obligate	4%	Sig Concern
Shrub-dependent	16%	Caution

Appendix D. Avian Grassland Scorecard by Site and Year (continued).

2009 Saratoga NHP - SARA Freeman Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	34%	Caution
Exotic	0%	Good
Grassland Obligate	7%	Caution
Shrub-dependent	17%	Caution

2009 Saratoga NHP - SARA Neilson Farm

<i>Response Guild</i>	<i>Percentage</i>	<i>Rating</i>
Edge Generalist	35%	Caution
Exotic	4%	Sig Concern
Grassland Obligate	12%	Good
Shrub-dependent	15%	Caution

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