

**2020 Breeding Bird Survey Report,  
Lawton Farm Recreation Area,  
Scituate Rhode Island**



**Prepared for: Scituate Conservation Commission  
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## 1. Executive Summary:

This report describes the results of a series of breeding bird point count surveys conducted at the Lawton Farm Recreation Area in Scituate, Rhode Island during May and June 2020. To identify breeding birds and evaluate habitat preferences of different species, point count surveys were conducted at three sites within Lawton Farm representing shrubland, forest, and field habitats. Survey results in 2020 showed an increase in species richness with a total of 45 species observed across the 3 sites. Highlights of the 2020 survey results are listed below:

- 1) The total number of species observed this year (53) was the highest number since the surveys began in 2012. This year the most abundant species were Bobolink, Red-winged Blackbird, Tree Swallow, American Robin, and Eastern Towhee.
- 2) Over the 9 consecutive years, a total of 66 unique species have been recorded at Lawton Farm.
- 3) Bobolink continue to be observed at Lawton Farm in substantial numbers in Field 1, but unlike several of the previous years no Bobolinks were observed in Fields 2 or 3. However, Lawton Farm continues to provide important habitat for Bobolinks, a species of conservation concern in Rhode Island.
- 4) Total abundance across all sites in 2020 was 533 individuals, a 45% increase over that observed in 2019.
- 5) Sixteen shrubland species were observed during all surveys in 2020, which is similar to the 19 reported in 2019. A total of 24 unique shrubland species have been reported over the past eight survey years (2012-2020). These findings suggest that Lawton Farm continues to provide important habitat for shrubland species.

Lawton Farm provides unique habitats to a variety of bird species, and thus contributes to maintaining regional bird diversity within New England. From a conservation point of view this is extremely valuable as this area is helping to maintain and enhance local and regional biodiversity. The property is particularly important to shrubland species and a grassland species, since both categories of birds have suffered regional declines due to habitat loss and forest succession in recent years.

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## 2. Introduction

This report describes the results of a series of breeding bird point count surveys conducted at the Lawton Farm Recreation Area in Scituate, Rhode Island in May and June 2020. Lawton Farm is a 54.4-acre parcel consisting primarily of open fields and shrubland, except for approximately 20 acres of forested wetlands and a small stand of upland hardwoods in the southwest corner. The ownership of the property is divided between the Scituate Land Trust, which purchased 39.4 acres (plat 9-1, lot 9) of the property via a conservation easement in 1990 through an Open Space Grant from the Rhode Island Department of Environmental Management (RIDEM), and the Town of Scituate, which purchased the remaining 15 acres (plat 9-1, lot 272) the same year. The 15 acres owned by the Town does not have a conservation easement or any other type of protection that would prevent development. The Scituate Town Council has assigned the task of managing the Lawton Farm property to the Scituate Conservation Commission (SCC). The SCC is an advisory board that works to promote and develop natural resources, protect watershed resources, and to preserve natural aesthetic areas within the Town of Scituate. A property management plan for Lawton Farm was developed in 2009 and the SCC continues to implement the conservation and management objectives described within the plan.

An important objective for the property is to maintain grassland habitat for Bobolink (*Dolichonyx oryzivorus*) and Eastern Meadowlark (*Sturnella magna*). To evaluate the progress of this management objective and to better understand bird use of the valuable shrub and grassland habitat that the property offers, point count surveys have been conducted since 2012. This report provides results of the 9<sup>th</sup> consecutive year of point count surveys at Lawton Farm.

## 3. Methods

The 2020 point count surveys were conducted at the same sites used in the 2012-2019 surveys. The three sites were originally selected based on the different types of shrubland in addition to forest and field habitats (Table 1 and Figure 1).

*Table 1: Lawton Farm point count site habitat descriptions 2020.*

Site	Description
Site 1	Field with periodic mowing, forested perimeter
Site 2	Field, shrubland and forest on perimeter
Site 3	Shrubland created by irregular mowing of the field, a meadow, and forest



**Figure 1:** Point count sampling sites at Lawton Farm, Scituate, Rhode Island in 2020. These sites are the same as the point counts conducted from 2012-2019.

**Site 1:** The first survey site was in the central portion of the property on the edge of Field 1 (Figure 1;  $41.75792^{\circ}$  N,  $-71.55652^{\circ}$  W, Figure 2). The field was bordered by small patches of shrubland to the north and west. This site included a hedgerow of mature trees which was

removed in 2012 to connect Fields 1 and 2 to improve habitat for bobolink and other grassland bird species. The eastern portion of the shrubland was dominated by multiflora rose (*Rosa multiflora*), which transitioned into a small herbaceous wetland to the west. To the north of the shrubland was a small area of forest where red maple (*Acer rubrum*) and white ash (*Fraxinus americana*) are the dominant species. To the east and south of the sampling site was Field 1, which is mowed every other year to maintain grassland habitat; mowing occurs in September to prevent disturbance of nesting birds. The hay bales are sold as construction hay.



**Figure 2:** A view of Site 1 looking southerly with field 1 to the left. In an effort to improve nesting habitat for grassland species, this year some of the walking trails have been closed and allowed to naturally re-vegetate. The former walking path is just barely evident in the middle of the photo.

**Site 2:** The second sampling site was in the western portion of the property on the southwestern edge of Field 3 (41.75715° N, -71.55952° W) adjacent to a patch of shrubland which began management in 2012 for invasive plant removal of species such as autumn olive (*Elaeagnus umbellata*) multiflora rose. Prominent species in this area included saplings of black cherry (*Prunus serotina*), Oriental bittersweet (*Celastrus orbiculatus*), and poison ivy (*Toxicodendron radicans*). The sampling site also included upland forest dominated by white ash and white oak (*Quercus alba*) (Figure 3).



*Figure 3. A view of Site 2 looking northwest.*

**Site 3:** The third sampling site was along the northern boundary of the property on the northern edge of Field 4 (41.75745° N, -71.55952° W). Field 4 included patchy regeneration of saplings of black cherry, American ash, and white oak. This sampling site provided the most heterogeneous vegetation mixture which contained short grasses and forbs interspersed with shrubs that measure up to four feet tall (Figure 4). White oak and American ash were the dominant species within the upland forest located on the northern limits of the survey site.



**Figure 4.** A south-facing view of the heterogeneous shrub habitat at Site 3. The forested line in the background divides this site from Site 2.

The methodology used in the 2020 point count surveys followed the same protocol used in the 2012-2019 surveys, with the exception that they were conducted this year by one observer instead of two to be safe during the COVID-19 pandemic. The purpose of the point count surveys was to identify breeding birds within Lawton Farm and to evaluate habitat preferences of different species. The three selected survey sites were separated by greater than 100 m to minimize the possibility recording the same bird at more than one site. Point counts were preceded by a three-minute wait period in order to minimize the disturbance to birds and to allow them to acclimate to the observers' presence. Point counts were conducted by a primary observer facing south for half of the time and north for the rest of the time to achieve a 360° view of the site. Species identification and abundance were recorded based on songs, calls, direct observations, and fly overs within 100 m of the observation site during each ten-minute point count. The observer made distinctions between birds present  $\leq 50$  m from the site and those between 50 and 100 m from the site. Each site was surveyed on three separate occasions on May 25<sup>th</sup>, June 8<sup>th</sup> and June 26<sup>th</sup>, 2020 and all were conducted between 0600 and 0900 hours.

To examine bird species associations with the survey sites, we classified birds into five guilds based on their preferred nesting and foraging habitat. Shrubland birds were those identified as primarily nesting in shrub habitat according to King and Schlossberg (2012). Forest birds were those described as cavity nesting species by Scott et al. (1977). Woodland, grassland, and open habitat birds were classified based on their primary habitat preference listed in Ehrlich et al. (1988).

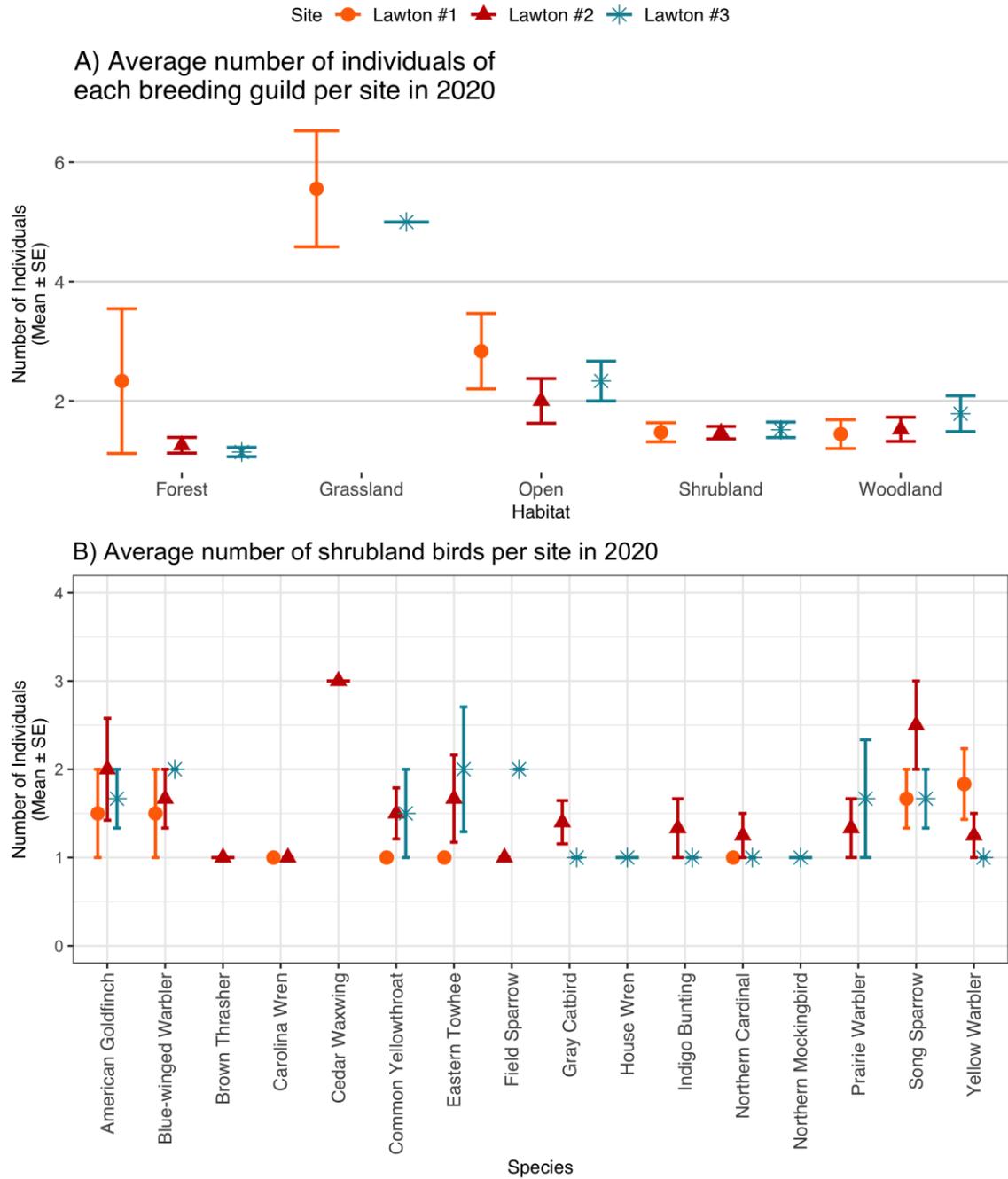
#### 4. Results

We observed 53 unique bird species in 2020 across the three sites during the three survey periods, nine more species than were observed in 2019 (44). The most abundant species were Bobolink (*Dolichonyx oryzivorus*; 50 recorded), Red-winged Blackbird (*Agelaius phoeniceus*; 25 recorded), Tree Swallows (*Tachycineta bicolor*; 30 recorded mostly flyovers), and American Robin (*Turdus migratorius*; 24 recorded), and Eastern Towhee (*Pipilo erythrophthalmus*; 20 recorded). Bobolinks continue to be observed at Lawton Farm in substantial numbers in Field 1 where they nest and use the area for foraging and cover. Bobolinks were not observed in Fields 2 or 3 this year. Over the 9 consecutive years that this series of surveys has been carried out, a total of 63 unique species have been recorded at Lawton Farm.

A total of 20 species were observed across all three sites, and 39 species were observed across at least two sites. Site 1 had 4 unique recorded species (species observed only at Site 1), while Site 2 had 6 and Site 3 had 3 unique species (Table 3). A total of 45 species were observed at Site 2 during the 3 survey days, followed by Site 3 with 36 species and Site 1 with 31 species.

On average, more individuals in the grassland guild at Site 2 and 3 were observed as compared to any other guild (Figure 2a), although this trend was driven by the high number of Bobolink at Site 1 and a chance encounter with a large flock of Wild Turkeys (*Meleagris gallopavo*) at Site 3 on 6/8/20.

Sixteen species of the 53 unique species observed were shrubland bird species, consistent with the number of shrubland bird species observed in 2019 (Figure 2b). Site 2 had the highest abundance of shrubland birds as compared to the other two sites. The most abundant shrubland bird at Site 1 were Yellow Warblers (*Setophaga petechia*; total count = 11), and at Site 2 and 3 were Eastern Towhee (Site 2 total count = 10; Site 3 total count = 8).



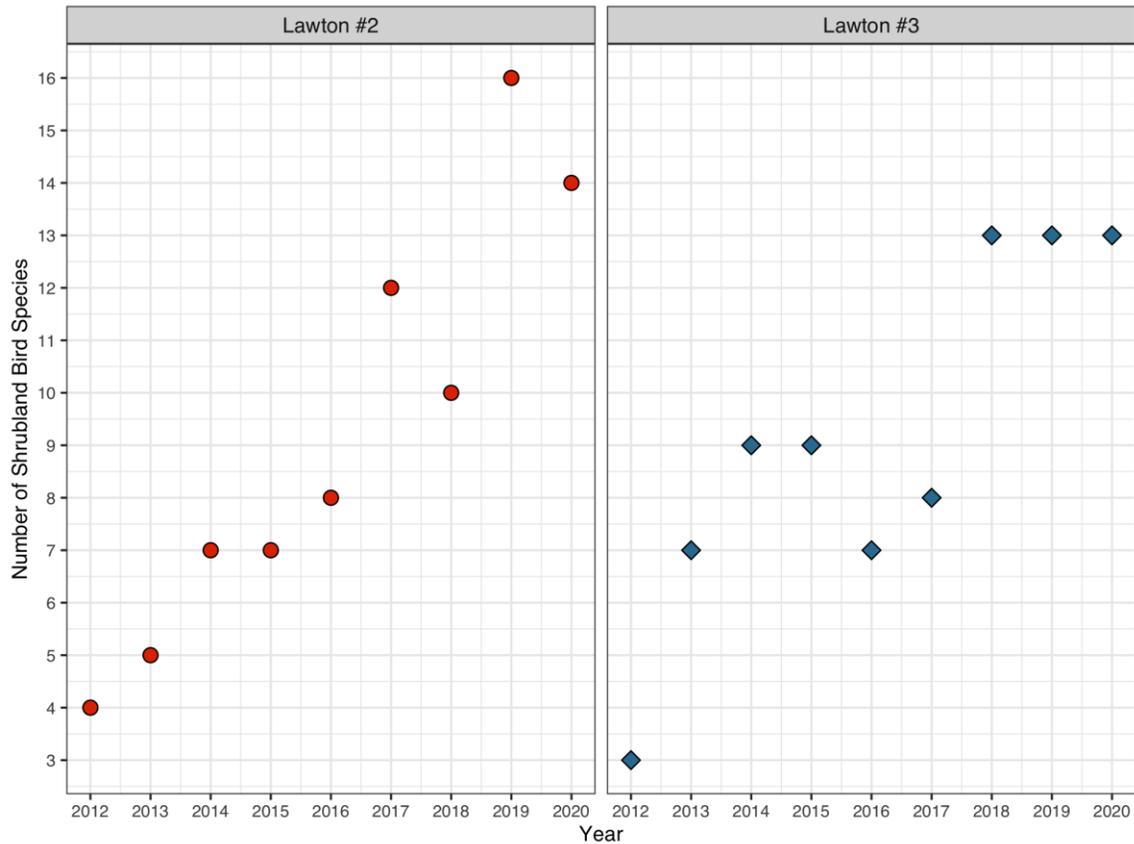
**Figure 2:** A) The number of individuals (mean  $\pm$  standard error) in the forest, grassland, open habitat, shrubland, and woodland breeding guilds observed at each point count location (Lawton Farm Site #1, Lawton Farm Site #2, Lawton Farm Site #3) in 2020. B) The number of individuals (mean  $\pm$  standard error) of each shrubland species over the three point count days at each site in 2020.

Total abundance across all sites in 2020 was 533 individuals, about a 45% increase over the numbers observed in 2019 (Table 2). In 2020, the greatest number of individuals recorded in a count within 100 m of the site (n = 77) occurred on 6/26/20. Twenty-one species were recorded during that count, and the most abundant species were Bobolink (n = 32 individuals), European Starling (n = 12 individuals), Red-winged Blackbird (n = 6 individuals), and Tree Swallows (n = 6 individuals).

<b>Date</b>	<b>Number of Individuals</b>	<b>Number of Species</b>
<b>5/25/20</b>	184	42
<b>6/8/20</b>	199	37
<b>6/6/20</b>	150	39

**Table 2:** *Number of individual birds and the number of species counted at the 3 Lawton Farm point count sites during the survey events in May and June 2020. Species reported are not unique species, and may reflect species counted at more than one site during a survey event.*

A total of 14 shrubland species were reported at Site 2, 13 shrubland species at Site 3 and 8 shrubland species at Site 1. The number of shrubland species has been steadily increasing since 2012 at both Sites 2 and 3, although Site 2 had two fewer shrubland species in 2020 as compared to 2019 (Figure 3). Overall, however, shrubland species observed at Site 2 increased from 4 in 2012 to 16 in 2019, and 14 in 2020. There were only 3 shrubland species at Site 3 in 2012 and we observed 13 shrubland species at Site 3 in 2020.



**Figure 3:** Number of shrubland bird species observed at a) Site 2 and b) Site 3 from Lawton Farm surveys carried out during the years 2012 – 2020.

## 5. Discussion

The number of species and individuals observed this year at Lawton continues the trend from past years which shows that more birds are using the habitats provided by Lawton Farm. Although several factors, including the variability in data generated from point counts and year-to-year fluctuations in the abundance of some species, may contribute to the number of species observed at Lawton in any given year, the consistent increasing trend is still a positive sign and confirms the conservation value of the area. Eastern Bluebirds (*Sialis sialis*) were observed for the second year in a row indicating that management for this species has been successful, at least in the short term. Several species observed during this year's survey are regulars at Lawton Farm: eleven species, including 4 shrubland species (Common Yellowthroat *Geothlypis trichas*, Eastern Towhee, Gray Catbird, Northern Cardinal *Cardinalis cardinalis*), were observed during each of the 8 surveys conducted since 2012.

We recorded Bobolinks only in Field 1 this year, but with similar abundance to past surveys. From 2016 – 2020, we recorded on average ~12 individual Bobolinks per survey event, and of these 12 about 35% were singing. Singing males are assumed to be defending nesting territory and can be considered a surrogate for a breeding pair, resulting in an average of 4 breeding pairs within the survey segment. The survey segment itself includes about 0.9 ha of the field, which is about 10% of the total area of the field. If we assume breeding pairs are uniformly distributed throughout the entire field, we could estimate about 40 breeding

pairs of Bobolinks at Lawton Farm based on our point count data. This would be about twice that predicted based on a minimum breeding habitat area requirement for Bobolinks of 0.49 ha (Dechant et al. 1999), or about 18 breeding pairs for Field 1. The difference may result from our assumption of uniform distribution being incorrect, or perhaps food resources are sufficiently abundant and nesting conditions favorable enough to support additional breeding pairs and effectively lower the minimum area requirement. Either way we can conclude that Lawton Farm provides important breeding habitat for Bobolinks, a species of conservation concern in Rhode Island.

Total abundance increased across all sites in 2020. The total number observed, 533 individuals, was a 45% increase over that observed in 2019 and represented the highest total to date. Again, a number of factors, many of which not directly tied to the Lawton Farm habitats, can influence bird abundance, but the increasing numbers observed are at least indicative that the habitats continue to be utilized for both breeding and foraging. In addition, this habitat may provide important cover for hatch year birds once they fledge from the nest, but prior to migration for many of these species that depend on early-successional (shrubland/woodland) habitats (Brenner and McWilliams, 2020).

The current series of annual surveys was started to observe potential changes in shrubland bird use of Lawton Farm habitats after several management actions were taken in the earlier part of the decade to increase shrub habitat, particularly near our sites 2 and 3 (i.e., Fields 3 and 4). Results over the last several surveys point to the success of these actions, and the increased use of Fields 3 and 4 as shrub vegetation becomes more prominent. This year we observed a steady number of shrubland bird species utilizing these areas, and a consistent increase over the years (2012-2020). 24 unique shrubland species have been reported. This represents more than half of the identified 41 shrubland bird species in New England and is important because many of these species are declining as a result of regional losses in shrubland habitat (Schlossberg and King 2012, Buffum *et al.*, 2011). Although relatively small, the shrubland habitats at Lawton Farm continue to contribute to the local conservation of shrubland bird species.

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<b>Species</b>	<b>Species Banding Code</b>	<b>Guild</b>	<b>Lawton #1</b>	<b>Lawton #2</b>	<b>Lawton #3</b>
American Crow	AMCR	W	1	1	1
American Goldfinch	AMGO	S	1	1	1
American Redstart	AMRE	W	0	1	1
American Robin	AMRO	W	1	1	1
Baltimore Oriole	BAOR	W	1	1	1
Barn Swallow	BASW	O	1	1	0
Black-and-white Warbler	BAWA	F	0	1	0
Black-capped Chickadee	BCCH	F	0	1	1
Black-throated Blue Warbler	BTBW	F	1	0	0
Black-throated Green Warbler	BTGW	F	0	1	1
Blue Jay	BLJA	W	1	1	1
Blue-winged Warbler	BWWA	S	1	1	1
Bobolink	BOBO	G	1	0	0
Brown Thrasher	BRTH	S	0	1	0
Brown-headed Cowbird	BHCO	W	0	1	1
Carolina Wren	CAWR	S	1	1	0
Cedar Waxwing	CEWA	S	0	1	0
Chipping Sparrow	CHSP	W	1	1	0
Common Grackle	COGR	O	1	1	1
Common Yellowthroat	COYE	S	1	1	1
Downy Woodpecker	DOWO	F	0	1	1
Eastern Bluebird	EABL	O	1	1	0
Eastern Kingbird	EAKI	O	1	1	0
Eastern Phoebe	EAPH	W	1	1	1
Eastern Towhee	EATO	S	1	1	1
Eastern Wood-Pewee	EWPE	F	1	0	1

Species	Species Banding Code	Guild	Lawton #1	Lawton #2	Lawton #3
European Starling	EUST	F	1	0	0
Field Sparrow	FISP	S	0	1	1
Gray Catbird	GRCA	S	0	1	1
Great Crested Flycatcher	GCFL	F	0	1	1
House Finch	HOFI	O	1	0	0
House Wren	HOWR	S	0	0	1
Indigo Bunting	INBU	S	0	1	1
Magnolia Warbler	MAWA	F	1	1	1
Mourning Dove	MODO	O	1	1	1
Northern Cardinal	NOCA	S	1	1	1
Northern Mockingbird	NOMO	S	0	0	1
Northern Rough-winged Swallow	NRWS	O	0	1	0
Ovenbird	OVEN	F	0	1	1
Prairie Warbler	PRWA	S	0	1	1
Red-bellied Woodpecker	RBWO	F	0	1	0
Red-eyed Vireo	REVI	F	1	1	1
Red-winged Blackbird	RWBL	O	1	1	1
Rose-breasted Grosbeak	RBGR	F	1	1	1
Scarlet Tanager	SCTA	F	0	1	0
Song Sparrow	SOSP	S	1	1	1
Tree Swallow	TRSW	O	1	1	0
Tufted Titmouse	TUTI	F	1	1	1
Veery	VEER	F	0	1	1
White-breasted Nuthatch	WBNU	F	1	1	1
Wild Turkey	WITU	G	0	0	1
Wood Thrush	WOTH	F	0	1	0
Yellow Warbler	YEWA	S	1	1	1

**Table 3.** Bird species observed within 100 m of the point count center during three survey events consisting of 10 minute counts at three sites within Lawton Farm Recreation Area,

*Scituate, Rhode Island, in 2019. Observations were based on singing, calls, visual observation, and fly overs. Guilds were assigned based on preferred breeding habitat; S = shrubland, F = forest, W = woodland, G = grassland, O = open land, U = urban/agricultural, M = marshland/riparian areas. Presence of a species was indicated by a "1" in the presence / absence columns, absence was indicated by a "0".*