

Report of Avian Species Richness and activity at Naval Cemetery Landscape (NCL Bird Survey, June 2020-May 2021)

By Loyan Beausoleil, Washington Square Park Eco Projects
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DESCRIPTION

The primary purpose of this report of Avian Species Richness and activity at Naval Cemetery Landscape (NCL Bird Survey) is to catalogue the area's avian populations within a one year time frame (June 2020 - May 2021) and assess the ways a small, urban fragment might provide habitat for birds. A second goal is to provide information about the bird populations that use Naval Cemetery Landscape (NCL), to aid managers as they plan, plant and maintain the area, in consideration of avian populations as indicators of biodiversity and habitat health. The third goal is to support NCL and staff in the development of educational tools and programs for NCL and to work in partnership with Washington Square Eco Projects and other conservation groups as part of a larger web of urban environmental organizations.



Naval Cemetery Landscape is a 1.7-acre urban greenspace, located in the Brooklyn Navy Yard at 66 Williamsburg Street West, and is part of the Brooklyn Greenway. The primary feature of NCL is a 1.1-acre, central meadow which is the majority of the space (Fig. 1). At the edges of NCL small trees, shrubs, fencing, a brick wall, and tall posts are present, which provide places for birds to take shelter, roost and nesting habitat for some species (Fig. 1). It appears that much of the biomass is kept on site and this is evident near the brick wall where there is a brush pile. Human visitors utilize the space by staying on a raised boardwalk or specially placed large stones, which allow visitors into the interior of the meadow without stepping on the plants.

Fig. 1. [Naval Cemetery Landscape meadow \(pink\) and edge \(green\)](#)

METHODOLOGY

The NCL Bird Survey protocol began as a monthly area search of the 1.7-acre urban green space with each survey visit lasting 30-40 minutes. Implications from the Covid-19 pandemic made it impossible for the survey to continue as initially planned resulting in an inconsistent survey protocol. The surveyor (Loyan Beausoleil) conducted bird surveys monthly from June 2020 through November 2020. Two surveys were conducted during the months of August and September 2020. Surveys were paused in December 2020, January 2021, March 2021, and April 2021. The surveyor was able to conduct a survey for February and May 2021. For the purpose of this report, eBird records are used for the months when the surveyor was unable to conduct the survey. No data is available for December 2020.

NCL is an eBird hotspot. For each survey (not including eBird records used) the surveyor began in the Northeast corner of NCL, near the office, and followed the boardwalk counterclockwise to the stones leading into the center of the meadow. At the stones, in the meadow's interior, the surveyor was stationary for two minutes. The survey ended by focusing on individual areas of the NCL which showed the most activity during initial observations.

Avifauna seen within the park's boundaries were recorded. Additionally, flyovers and nearby nesting Red-tailed Hawk activity were recorded. The surveyor's observations were recorded with pencil and paper, noting breeding behavior and which areas of NCL (poles, edge, or meadow) were being utilized by birds. Surveys were submitted to the eBird community science database. Photographs of birds were taken when possible.

Criteria for exclusion were:

- Birds not identified to the species level
- Flyovers of birds that were identifiable but not over NCL or the immediate surrounding area.

Table 1

Total species richness, and number of surveys and eBird records used (June 2020 - May 2021)

	Conducted by surveyor (LB)	Additional data from eBird record not observed by surveyor	Total
Number of Surveys	10	3 eBird records used (Mulligan, E., Kramer-Duffield, J., Epstein, M.)	13
Total Species Richness	35	3 additional species documented (Mulligan, E. (2), Kramer-Duffield, J (1))	38 (see Appendix 1)

Table 1 shows ten (10) surveys conducted by Loyan Beausoleil with a total species richness of 35, and three (3) eBird records used with three (3) additional species added to total species richness.

RESULTS

Area search by primary surveyor and use of eBird records

During the one-year survey American Goldfinch and European Starling were the two most populous species at NCL (Table 2). Numbers of individuals of native species outnumber numbers of individuals of introduced species in each eBird record or survey date, except on 07/02/20 when 51 individuals (from 12 species) were observed. On that date seven (7) European Starling and 23 House Sparrows were observed foraging in the meadow for a total of 30 out of 51 individuals that were not native species.

The presence of large numbers of American Goldfinch, observed on five (5) of the survey dates in three (3) seasons (Fall, Winter, and Spring) and Pine Siskin observed on 10/23/20 indicate a good source of food availability for finch species.

Table 2

Summary of avian abundance from surveys conducted by Loyan Beausoleil and eBird records (June 2020 - May 2021)

Total Avian Species Abundance	378	(See appendix 1)
Top Five Most Abundant Species Based on Total Number of Individuals	1. American Goldfinch (52) 2. European Starling (48) 3. American Robin (46) 4. Blue Jay (32) 5. House Sparrow (27)	<i>Note:</i> Flyovers not included in this count.
Top Five Most Abundant Native Species Based on Total Number of Individuals	1. American Goldfinch (52) 2. American Robin (46) 3. Blue Jay (32) 4. Mourning Dove (19) 5. Chimney Swift (13)	<i>Note:</i> Flyovers not included in this count.
Top Five Highest Number of Species During a Survey	1. 5/2/21 (15) 2. 11/22/20 (12) 3. 10/23/20 (12) 4. 8/23/20 (12) 5. 7/2/20 (12)	<i>Note:</i> Average number of species seen during total 13 surveys 9.615
Total Number of Individuals of Native Species	301 (79.63%)	
Total Number of Individuals of Introduced Species	77 (20.97%)	<i>Note:</i> European Starling (48) House Sparrow (27) Pigeon (2)

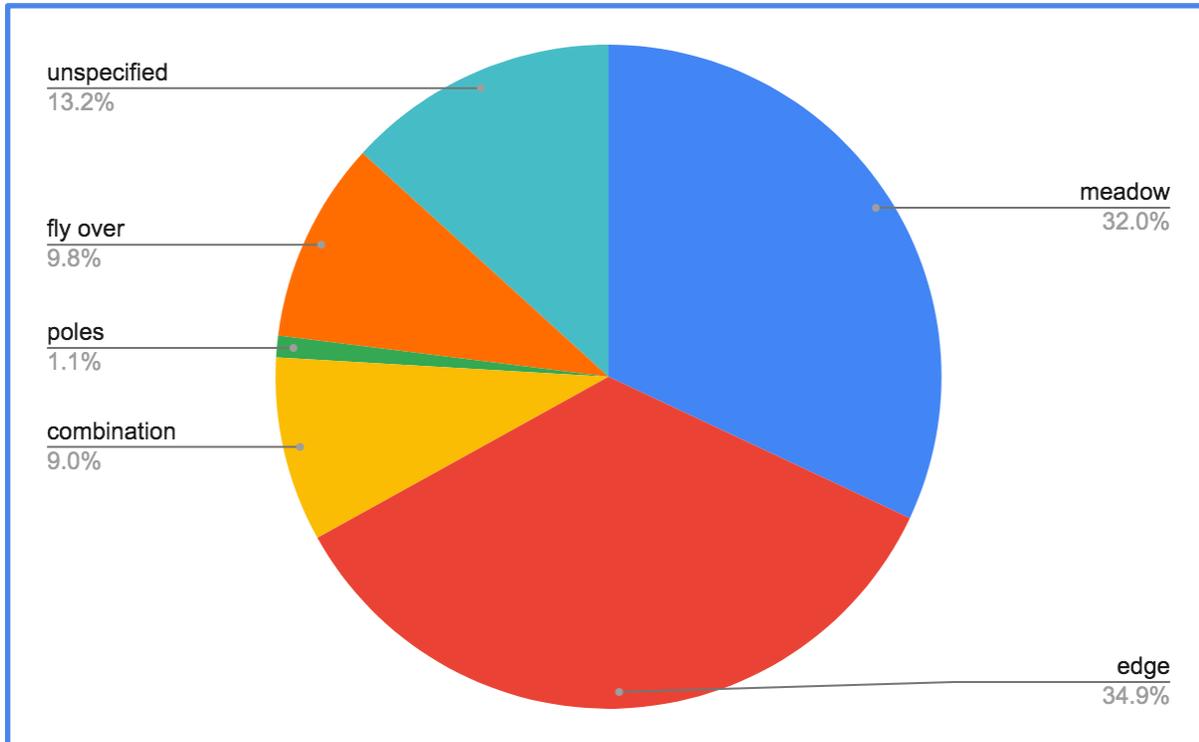
Table 2 reflects species that met criteria and were observed during official surveys and information gathered from the eBird record. The total abundance and number of individuals include flyovers of Laughing Gull, Ring-billed Gull, Herring Gull, and Double-crested Cormorant.

Areas used by birds: Meadow and edge

There are two main habitat areas at NCL, the central meadow and the edge (Fig. 1). 32% of individual birds were observed using the meadow and 34.9% were observed using the edge (Chart 1). 79.63 percent of individual birds that use NCL are native species (Table 2) indicating the presence of resources for birds that may be generalists, specialists, and/or migrants.

Chart 1

Naval Cemetery Landscape: Percentage of 378 individuals and usage by area



This chart demonstrates areas of NCL used by percent of individuals (total 378 individuals). Unspecified (13.2%) reflects eBird data not collected by the surveyor, and activity of nearby Red-tailed Hawks, collected by the surveyor. Combination (9%) reflects observations, by the surveyor, where groups of European Starlings were moving and foraging in meadow and trees alternately and throughout the entire NCL.

Species Richness and Foraging Guilds of Birds that use NCL

Species richness for the one-year survey is 38 (Table 1, Appendix 1) and birds that use NCL fall into six broadly defined feeding guilds and one sub-guild (aerial insectivore). Bird foraging guilds are based on multiple factors including diet and can be used to help determine the structure of the avian ecological community (Gonzalez, et al., 2014). Table 3 looks at six (6) foraging guilds and one (1) sub-guild based on the food resources that NCL provides to 32 species of birds (Table 3). Six species that were observed as flyovers only (Appendix 1) are not included in Table 3. Species documented in the eBird record only, without information about the area used, are included in Table 3.

Table 3

Summary of Bird Species by Foraging Guild, that use NCL

Guild	Species	Number of species
Carnivore	<ul style="list-style-type: none"> - Red-tailed Hawk - American Kestrel 	2
Granivore	<ul style="list-style-type: none"> - Mourning Dove - House Sparrow (nestlings are fed insects) - House finch - Pine Siskin - American Goldfinch - Chipping Sparrow* (insects in breeding season) - Field Sparrow (90% seeds, some insects) 	7
Frugivore	<ul style="list-style-type: none"> - Cedar Waxwing (also insects May-September) 	1
<i>Aerial Insectivore</i>	<ul style="list-style-type: none"> - Barn Swallow - Chimney Swift 	2
Insectivore	<ul style="list-style-type: none"> - Northern Flicker (fruit in late fall and winter) - Golden-crowned Kinglet (occasional seeds) - Carolina Wren - American Redstart (occasional small berries) 	4
Nectarivore	<ul style="list-style-type: none"> - Yellow-bellied Sapsucker (+ some plant & animal matter) 	1
Omnivore	<ul style="list-style-type: none"> - Downy Woodpecker - Blue Jay - American Crow* - Black-capped Chickadee (animal matter 70%) - Tufted Titmouse* (animal matter 66%) - European Starling - Gray Catbird - Northern Mockingbird - American Robin - Dark-eyed Junco (plant matter 76%) - White-throated Sparrow - Song Sparrow - Red-winged Blackbird (plant matter, non-breeding season) - Yellow-rumped Warbler (needs more research) - Northern Cardinal (plant matter 71%) 	15

Table 3 reflects 32 bird species that use NCL and fall into six (6) foraging guilds and one (1) sub-guild. Species marked * were not observed by the surveyor and are included in this Table based on their known feeding behaviors (Middleton, 2020; Verbeek & Caffrey, 2021; Ritchison, et al., 2020). Six (6) species recorded as flyovers only are not included in Table 3.

Areas used by birds and feeding guilds

The two distinct areas – meadow and edge – used by birds at NCL may directly support avian species from all foraging guilds listed in Table 3, except carnivore. Carnivore species documented at NCL include Red-tailed Hawk and American Kestrel. These species may benefit indirectly as the meadow and edge likely provide a prey base especially for American Kestrels, which often eat small birds and large insects such as dragonflies and grasshoppers (Smallwood & Bird, 2020). While the meadow is the dominant feature in NCL, the edge with a variety of trees and shrubs provides habitat for the greatest number of species and the greatest number of individuals (Chart 1). American Kestrel and Northern Flicker were observed sitting on the poles that surround NCL, which likely provide a hunting perch for American Kestrels and resting perch for Northern Flickers. While only two species were observed using the poles it is likely that other species, such as Red-tailed Hawk, also use the poles to observe the surrounding area. Eighteen (18) species were observed using the edge area and thirteen (13) species were observed using the meadow including Chimney Swift, which is the 5th most abundant native species at NCL (Table 2) and listed as a vulnerable species in decline (Birdlife international, 2021).

Seven (7) species were observed flying over NCL, including Chimney Swift, which were also observed foraging low over the meadow. Six of the seven flyover species were recorded as flyovers only and were not observed using either the meadow or edge at NCL (Chart 1) (Appendix 1).

Chimney Swift

It is worth noting that Chimney Swifts, which are long-distance migrators and listed as a vulnerable species showing range wide declines (Steeves, et al., 2020), are the 5th most abundant native species observed at NCL and were seen flying high over NCL and foraging low over the meadow. The meadow likely provides an ample prey base for foraging Chimney Swifts, which are aerial insectivores and depend on small, flying insects for 100% of their diet (Steeves, et al., 2020). The areas surrounding NCL, including residential, industrial and the Brooklyn Navy Yard may provide nesting and roosting habitat, in the form of uncapped, masonry chimneys. Identifying and protecting nearby nesting and roosting sites should be considered as a way to promote conservation of Chimney Swifts in conjunction with the important food resources that NCL provides.

Breeding Birds

A variety of plants and food resources at NCL provide suitable breeding habitat for eleven (11) species of native birds. NY Breeding Bird Atlas III (NYBBAIII) (2021) breeding codes indicating confirmed, possible or probable breeding and/or nesting are used to assess breeding bird behaviors at NCL, and five (5) species exhibited multiple breeding behaviors (Chart 2). For the purpose of this survey “observed” behaviors that are used as breeding codes assigned for NYBBAIII, such as flyovers, are not considered an NCL breeding bird behavior.

Confirmed breeding behaviors are observations that show adult birds engaged in activities that indicate successful or attempted nesting. Possible breeding behaviors indicate that birds are

present in adequate numbers, in an area that provides appropriate habitat for breeding. Probable breeding behaviors demonstrate that birds are likely to breed or may be breeding in an area where nests and/or young are not visible. For the purposes of this survey “adult with young,” which is not a breeding code used for NYBBAIII, is considered a probable breeding behavior (Table 4). Two (2) species, House Finch and Downy Woodpecker, were observed as “adult with young.” This likely indicates a successful breeding attempt at or near NCL for these two species.

Chart 2

Number of species exhibiting breeding behaviors at NCL

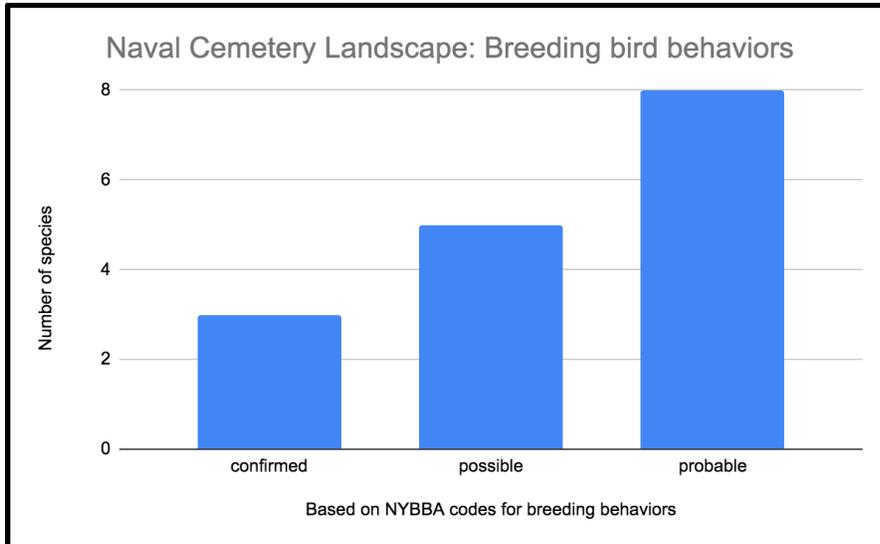


Chart 2 demonstrates the number of native species observed at NCL that met the criteria for NYBBAIII breeding behaviors and/or the additional breeding bird behavior “adult with young” (see Table 5 for species information)

Table 4

NY Breeding Bird Atlas III: Breeding bird codes

Confirmed	Possible	Probable
<ol style="list-style-type: none"> 1. Carrying nesting material 2. Nest building 3. Distraction display 4. Occupied nest 5. Recently fledged young 6. Carrying food 7. Nest with eggs 8. Nest with young 	<ol style="list-style-type: none"> 1. In appropriate habitat 2. Singing bird 	<ol style="list-style-type: none"> 1. Multiple singing birds 2. Pair in suitable habitat 3. Territorial defense 4. Courtship, display or copulation 5. Visiting probable nest site 6. Agitated behavior 7. <i>Adult with young</i>

Table 4 shows the breeding behaviors for the NYBBAIII breeding codes that are used to document breeding and nesting activity observed at NCL. An additional breeding code, not used for NYBBAIII, adult with young (AY), is also shown as a probable breeding behavior.

The majority of species observed exhibiting breeding behaviors at NCL are non-migratory (NM) or short-distance migrators (SDM) and only two long-distance, neotropical,

migratory (LDM) bird species were observed demonstrating breeding behaviors (Table 5). Chimney Swift, which are listed as a vulnerable species (Birdlife international, 2021) may breed nearby, and Grey Catbird, which likely nests at NCL, are species that winter in the Neotropics. Although no breeding activity was observed, it is likely that Morning Doves also breed nearby or in NCL. Non-native species that may breed at NCL are not included.

Table 5
Species and breeding codes observed (not in taxonomic order)

C/P/PR	Species, # individual	Migration	Breeding code	Date observed
Confirmed Confirmed Probable	American Robin (1) American Robin (1) American Robin (9)	NM, SDM	CN - Carrying nesting materials CF - Carrying food AY - Adult and young	6-2-20 7-2-20 8-23-20
Confirmed Probable	Northern Cardinal (3) Northern Cardinal (2)	NM	FY - Feeding young P - Pair in suitable habitat	8-23-20 2-20-21
<i>Confirmed</i>	<i>Red-tailed Hawk (2)</i>	<i>NM, SDM</i>	<i>NY - Nest with young</i>	<i>5-2-21</i>
Possible	Blue Jay (6)	NM, SDM	H - Appropriate Habitat	10-23-20
Possible	*Carolina Wren (1)	NM	H - Appropriate Habitat	5-2-21
Possible	Chimney Swift (4)	LDM	H - Appropriate Habitat	7-2-20
Probable	House Finch (4)	NM, SDM	AY - Adult and young	7-2-20
Probable	Downy Woodpecker (3)	NM	AY - Adult and young	7-2-20
Probable Probable	American Goldfinch (4) American Goldfinch (2)	NM, SDM	A - Agitated behavior N - Visiting probable nest site	5-2-21 5-2-21
Possible Probable	Gray Catbird (1) Gray Catbird (4)	LDM	S - Singing bird N - Visiting probable nest site	6-2-20 6-21-20
Possible Probable	Northern Mockingbird (1) Northern Mockingbird (2)	NM, SDM	SB - Singing bird N - Visiting probable nest site	6-2-20 5-2-21

Table 5 demonstrates the species that may breed at NCL, breeding behaviors observed, number of individuals, migratory status and the date of observation. Red-tailed Hawks (in italics) breed near NCL. *Carolina Wren (1) is included, as a singing bird and pair were observed by the primary surveyor on a non-survey visit to NCL. Bolded migration status indicates that more research is needed to understand the migratory behaviors of the species.

DISCUSSION & CONCLUSION

Naval Cemetery Landscape is a 1.7-acre urban greenspace, nestled into the Brooklyn Navy Yard. The one-year bird survey demonstrates that NCL supports varied and numerous species of birds throughout the year. The area provides two distinct microhabitats. The native meadow contributes to an abundance of insect prey and seed forage for birds, and the edge, which consists of low trees (deciduous and conifer), fruiting trees and shrubs, sticks and biomass, and anthropogenic structures, provide food, cover and in some cases nesting habitat. While the meadow makes up a majority of the area the edge also plays an important role in providing food, shelter, and nesting resources and a larger number of individuals were observed using the edge at NCL. While NCL is a small, urban fragment it provides prey and forage for species from multiple feeding guilds, and breeding habitat for up to 11 species.

It is worth noting that Chimney Swift, a species in decline, is the fifth most abundant species observed at NCL and it is likely that the unique location of NCL, in combination with a productive insect habitat, benefits the species. The presence of Chimney Swifts, which can be challenging birds for the public to observe, sometimes forage low over the NCL meadow, which makes NCL an ideal location for providing educational programming and resources about Chimney Swifts.

Questions remain about how the quality of NCL might be improved to better support a greater number of avian species and individuals. During the one-year survey *Catharus* thrushes such as Swainson's Thrush and Hermit Thrush, which migrate through NYC in Spring and Fall and prefer low, shady forage were not observed. The absence of these birds during migration is unusual as shrub cover and leaf litter usually attracts them to city parks on the migratory flyway.

The surveyor wonders if there is a presence of feral cats (not observed by the surveyor), which may prey on birds such as *Catharus* thrushes, which are most likely to forage on the ground. Additionally, NCL is a small urban fragment and fragmentation is known to impact birds and biodiversity (Yang, X., et al., 2020). The size of NCL, proximity to the highway, and distance to other green spaces may be a factor that limits the number of bird species which utilize the area (Yang, X., et al., 2020). The development of a larger patchwork of connected green spaces, in the Brooklyn Navy Yard and surrounding area, combined with the improvement of nearby parks may lessen the effects of fragmentation that occur in urban areas.

Even though NCL is a small space it provides multiple resources for birds. The care and attention that is given to the meadow and edge provides habitat, especially for year-round, non-migratory, resident birds. NCL is an example of the important role urban greenspaces play to support avian species richness and abundance, provide food and shelter for migrating birds, and nesting and breeding opportunities for summer residents. The variety of species, from multiple feeding guilds, points out the importance of small greenspaces and their ability to provide resources for avian species. The dedication and work of NCL overseers is instrumental as it provides wonderful habitat and supports avian biodiversity. A citywide increase in spaces such as

NCL, could be a way to increase and support urban and migratory birds. In this way NCL is an example of the important role small urban greenspaces play in the urban landscape.

ACKNOWLEDGEMENTS

The staff at NCL have created a beautiful and welcoming place for people and birds, and everyone I met who works there generously shared their passion and knowledge about the plants, insects, birds, history, and habitats. NCL's Gregory Topscher especially contributed by explaining when and where he had previously seen birds at NCL, which helped me find and identify the birds present and better understand the unique microhabitats at NCL. His knowledge of birds that use NCL led to a more detailed report.

This report would not have been possible without the help of three people who kept eBird lists for NCL when I was unable. The data collected by Ethan Mulligan, Jacob Kramer-Duffield and Max Epstien was instrumental in developing a comprehensive report that includes the winter months. Conversations with Kate Gluzberg, about places in Brooklyn with meadows and how birds might use those spaces, led to a survey protocol designed especially to consider an urban meadow.

This work would not be possible without the support of my friend and colleague, Georgia Silvara-Seamans. Her work as an urban forester, scientist, activist, and conservationist highlights the ways in which people, wildlife and plants co-exist in small urban greenspaces. She generously consults with me and offers help and advice on many of my pursuits, and I am thankful. The community organizations she has created, Washington Square Park Eco Projects and Local Nature Lab, bring people and organizations together and this report would not be possible without her vision and dedication to partnership and the collaboration of urban, environmental organizations.

Respectfully submitted by
Loyan Beausoleil (October 2021)
Washington Square Park Eco Projects

References

- BirdLife International (2021) Species factsheet: *Chaetura pelagica*. Downloaded from <http://www.birdlife.org> on 16/07/2021.
- Epstein, M. (13 March, 2021). *eBird checklist*: <https://ebird.org/atlasny/checklist/S83878174>
An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York.
<http://www.ebird.org>
- Gonzalez-Salazar, C., Martinez-Meyer, E., Lopez-Santiago, G. (2014). A hierarchical classification of trophic guilds for North American birds and mammals. *Revista Mexicana de Biodiversidad*. Vol 85 (3), 931-341.
<https://doi.org/10.7550/rmb.38023>
- Kramer-Duffield, J. (10 January, 2021). *eBird checklist*: <https://ebird.org/checklist/S79027456>
An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York.
<http://www.ebird.org>
- Middleton, A. L. (2020). Chipping Sparrow (*Spizella passerina*), version 1.0. In *Birds of the World* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.chispa.01>
- Mulligan, E. (9 April, 2021). *eBird checklist*: <https://ebird.org/checklist/S85613584>
An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York.
<http://www.ebird.org>
- New York Breeding Bird Atlas III (2020-2024). *Observe Breeding*. eBird. <https://ebird.org/atlasny/about/breeding-behaviors>
- Ritchison, G., T. C. Grubb Jr., and V. V. Pravosudov (2020). Tufted Titmouse (*Baeolophus bicolor*), version 1.0. In *Birds of the World* (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA.
<https://doi.org/10.2173/bow.tuftit.01>
- Smallwood, J. A. and D. M. Bird (2020). American Kestrel (*Falco sparverius*), version 1.0. In *Birds of the World* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.
<https://doi.org/10.2173/bow.amekes.01>
- Steeves, T. K., S. B. Kearney-McGee, M. A. Rubega, C. L. Cink, and C. T. Collins (2020). Chimney Swift (*Chaetura pelagica*), version 1.0. In *Birds of the World* (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. <https://doi.org/10.2173/bow.chiswi.01>
- Verbeek, N. A. and C. Caffrey (2021). American Crow (*Corvus brachyrhynchos*), version 1.1. In *Birds of the World* (A. F. Poole and F. B. Gill, Editors). Cornell Lab of Ornithology, Ithaca, NY, USA.
<https://doi.org/10.2173/bow.amecro.01.1>
- Yang, X., Tan, X., Chen, C. *et al.* The influence of urban park characteristics on bird diversity in Nanjing, China. *Avian Res* 11, 45 (2020). <https://doi.org/10.1186/s40657-020-00234-5>

Appendix 1

Bird Species Observed During One Year Survey (June 2020-May 2021) of Naval Cemetery Landscape in taxonomic order

* Photographed for survey by Loyan Beausoleil

Highlighted: From the eBird record and not observed by Loyan Beausoleil

Bold: Conservation status vulnerable

FO: Flyover only

1. Canada Goose (*Branta Canadensis*) (FO)
2. Rock Pigeon (*Columbia livia*) (FO)
3. Mourning Dove (*Zenaida macroura*)
4. **Chimney Swift (*Chaetura pelagica*) BirdLife International (Vulnerable)**
5. Laughing Gull (*Leucophaeus atricilla*) (FO)
6. Ring-billed Gull (*Larus delawarensis*) (FO)
7. Herring Gull (*Larus argentatus*) (FO)
8. Double-crested Cormorant (*Phalacrocorax auritus*) (FO)
9. *Red-tailed Hawk (*Buteo jamaicensis*)
10. Yellow-bellied Sapsucker (*Sphyrapicus varius*)
11. *Downy Woodpecker (*Dryobates pubescens*)
12. *Northern Flicker (*Colaptes auratus*)
13. American Kestrel (*Falco sparverius*)
14. *Blue Jay (*Cyanocitta cristata*)
15. **American Crow (*Corvus brachyrhynchos*)**
16. *Black-capped Chickadee (*Poecile atricapillus*)
17. **Tufted Titmouse (*Baeolophus bicolor*)**
18. Barn Swallow (*Hirundo rustica*)
19. *Golden-crowned Kinglet (*Regulus satrapa*)
20. Carolina Wren (*Thryothorus ludovicianus*)
21. European Starling (*Sturnus vulgaris*)
22. Gray Catbird (*Dumetella carolinensis*)
23. *Northern Mockingbird (*Mimus polyglottos*)
24. *American Robin (*Turdus migratorius*)
25. Cedar Waxwing (*Bombycilla cedrorum*)
26. *House Sparrow (*Passer domesticus*)
27. *House Finch (*Haemorhous mexicanus*)
28. Pine Siskin (*Spinus pinus*)
29. *American Goldfinch (*Spinus tristis*)
30. **Chipping Sparrow (*Spizella passerina*)**
31. *Field Sparrow (*Spizella pusilla*)
32. Dark-eyed Junco (*Junco hyemalis*)
33. White-throated Sparrow (*Zonotrichia albicollis*)
34. *Song Sparrow (*Melospiza melodia*)
35. Red-winged Blackbird
36. *American Redstart (*Setophaga ruticilla*)
37. Yellow-rumped Warbler (*Setophaga coronata*)
- 38.. Northern Cardinal (*Cardinalis cardinalis*)