

Observing Wildlife Longitudinally in Washington Square Park

NYC Parks Research Permit Annual Report

Washington Square Park Eco Projects

January 11, 2018



Fig. 1. Washington Square Park. Source: NYC Parks website.

Project Description

There is anecdotal evidence about the faunal species that use Washington Square Park, a 9.75-acre public park in the Greenwich Village neighborhood (Fig. 1). The *NYU Alumni Magazine* commissioned an illustrated map of the wild inhabitants of the park, but this map does not provide spatial or numeric data. Bloggers and the *New York Times* have documented the pair of Red-tailed Hawks that nest on a window ledge of the NYU Bobst Library facing the park. The *New York Times* hosted a hawk webcam from 2011, the time of the first nest, to 2014. Two blogs, Urban Hawks and Roger Paw, have photographed the mating pair and their offspring every year since 2011.

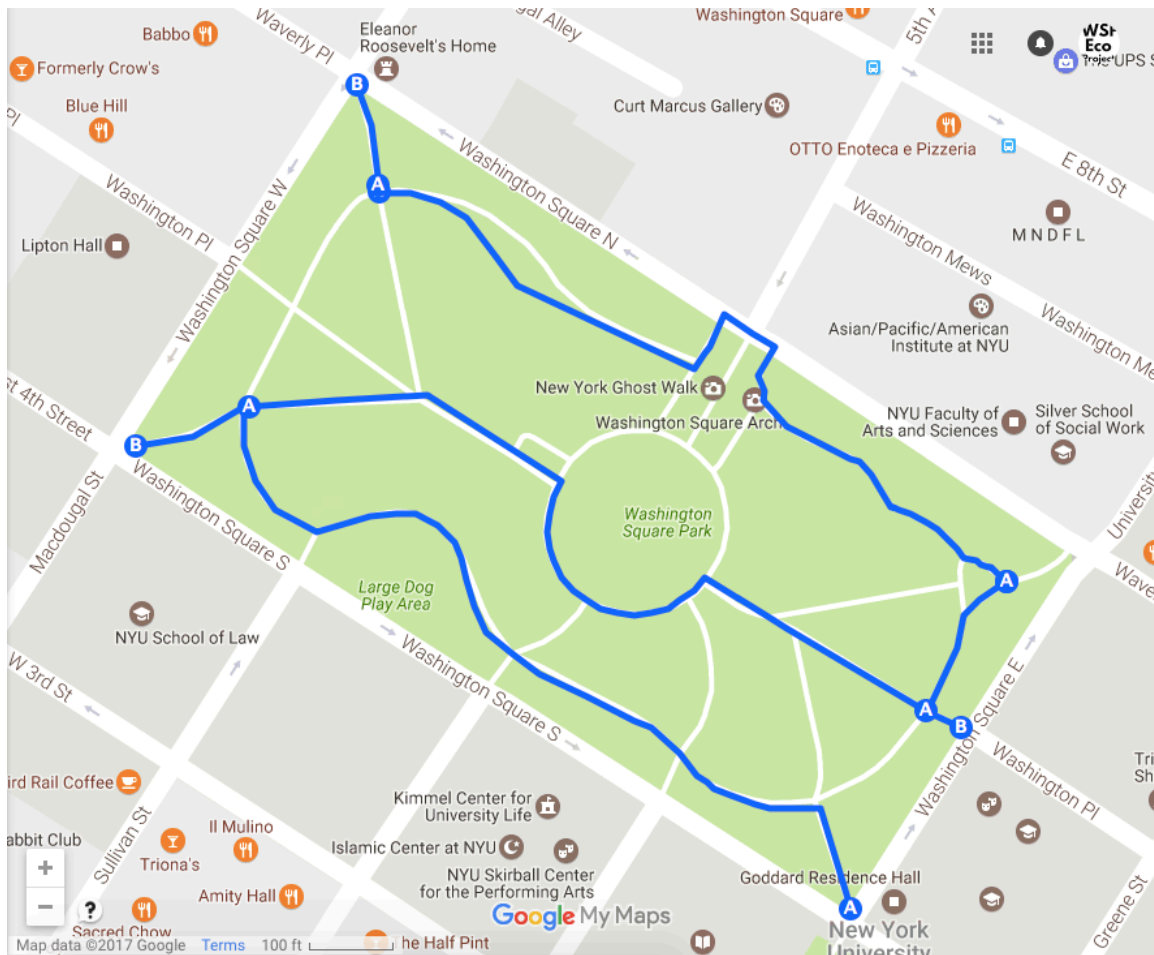


Fig. 2. Continuous transect line, WSP Wildlife Survey.

The primary purpose of Observing Wildlife Longitudinally in Washington Square Park (WSP Wildlife Survey) is to collect baseline data of the park’s wildlife population. A second goal of the survey has always been to provide experiential learning opportunities for the community. NYC Parks first issued a permit for the WSP Wildlife Survey in 2016. The permit was renewed in March 2017. This report describes the methods and findings of the 2017 WSP Wildlife Survey.

Methodology

The survey protocol is a continuous line transect (Fig. 2). The surveyors, Loyan Beausoleil and Georgia Silvera Seamans, walked the line in the same direction and for approximately the same amount of time each time the survey is administered. Each survey was conducted between 7:00 and 8:30 a.m. Eastern Standard Time on days without rain.

Wildlife seen within the park’s boundaries while walking the line transect were recorded with the following exceptions. Birds heard, seen overhead, or observed

outside the park as well as wildlife that are neither bird, nor squirrel, nor rodent (ex: butterfly) were not included in the official counts. Also not officially counted were flocks of birds or squirrels that form around a person providing food. Birds and other wildlife were recorded on a paper map. Bird observations were submitted to eBird.

Results

Nineteen (19) continuous line transects were completed between March 1 and December 31, 2017 (Table 1).

Table 1.
Summary of wildlife counts – 2017 and 2016

	2017 (March – December)	2016 (August – December)
Number of transects	19	7
Number of bird species	37	33
Number of bird individuals	2499	1157
5 most populous bird species	House Sparrow, Rock Pigeon, American Robin, White-throated Sparrow, European Starling	House Sparrow, Rock Pigeon, White-throated Sparrow, American Robin, European Starling
Rodent totals	5	4
Squirrel totals	377	173

Bird Totals – Species and Individuals

In 2017, 37 different bird species were officially recorded within the park totaling 2499 individuals. When non-formal surveys are included, the total number of species is 47 totaling 3074 individuals in 2017. (In 2016, 33 species and 1157 individuals were observed across seven official wildlife counts.)

The five species with the most individuals recorded across official counts were House Sparrow (1,187 or 45.7% of the total number of individuals), Rock Pigeon (811), American Robin (104), White-throated Sparrow (97), and European Starling (77). In 2016, the top two most populous species were also the House Sparrow and the Rock Pigeon.

The bird species that were not observed during the formal wildlife counts include gull sp. (4; flew overhead), Red-bellied Woodpecker (1), Eastern Wood-Pewee (1), Eastern Phoebe (2), Ovenbird (2), Kentucky Warbler (1), Magnolia Warbler (1), Palm Warbler (2), Wilson’s Warbler (1), and Common Grackle (1).

Microhabitats in the park

As we wrote last year, the park is composed of several microhabitats. The major distinguishing factor of these microhabitats is the types and layers of vegetation. As we did last year, we noticed variations in the species and the number of individuals found in the park's microhabitats. The Washington Arch meadows again supported species richness. The Kentucky Warbler spent much of its layover in this area of the park. In contrast, fewer species and individuals were observed in the Holley Plaza Meadow (north). The herbaceous perennial layer in this area was less diverse and sparse than in 2016. Last year the English Elm was a hotspot for birds in the park. This was not the case in 2017. Although the English Elm was less activated, the midstory in the northwest corner of the park was a hotspot for sapsuckers and warblers. Additional dynamic spaces were the meadow and lawn between Holley Plaza and the administration building as well as the northeast corner of the park.



Figure 3. Kentucky Warbler, Washington Square Park, May 15, 2017, photo courtesy of Dennis Edge.

Non-bird Totals

In addition to birds, the survey team also counted squirrels and rodents yielding 377 squirrels, four (4) rats, and one (1) mouse. The small rat count is not indicative of the actual population of rats in the park.

Animals observed but unofficially counted include monarch, painted lady, other butterflies, black swallowtail caterpillar, dragonfly, and bee species.

Discussion and Conclusion

Washington Square Park is a 9.75-acre park that supports year-round and winter populations of birds and other animals. The park also acts as a “small forest fragment” providing stopover-site ecological services for long- and short-distance migrants (Hostetler, 2016). Our survey revealed that a mix of migrant, wintering, and year-round bird species use the park.

To improve on existing ecological conditions, we strongly urge the Parks Department to: (1) enhance existing meadow areas and where possible expand their footprint; (2) plant more bird-friendly (small-stature) trees and shrubs including evergreen species; (3) add more sheltering plants in more people-used areas of the park; (4) maintain more high forage groundcover for late fall/winter and early spring migrants as well as wintering species.

Finally, as we continue to develop baseline wildlife population data for the park, we will provide citizen science opportunities by engaging the public in bird counts throughout the year.

Respectfully submitted by
Georgia Silvera Seamans for Washington Square Park Eco Projects