* **User Guide | Central Park Squirrel Census Data Collection**

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**What’s In This Data Collection?**

The Squirrel Census is a multimedia science, design, and storytelling project focusing on the Eastern gray (*Sciurus carolinensis*). They count squirrels and present their findings to the public. In October 2018 — with the help of 323 volunteer Squirrel Sighters, as well as The Explorers Club, NYU Department of Environmental Studies, Macaulay Honors College, the Central Park Conservancy, and New York City Department of Parks & Recreation — they tallied the squirrels in Central Park in New York, NY, and gathered other material data. The Central Park Squirrel Census (CPSC) resulted in the June 2019 release of the multimedia report *The Central Park Squirrel Census 2019 Report*. This is the raw data from the Census observation period. The data was digitally tabulated from over 3,000 pages of tally sheets used during the Census by the Squirrel Sighters. It encompasses 700 total squirrel-counting sessions over 350 “countable” park hectares. The data is organized into three sets:

CPSC Hectare Data: This table contains environmental data related to each of the 350 “countable” hectares of Central Park. Examples include weather, litter, animals sighted, and human density.

CPSC Squirrel Data: This table contains squirrel data for each of the 3,023 sightings, including location coordinates, age, primary and secondary fur color, elevation, activities, communications, and interactions between squirrels and with humans.

CPSC Stories: This table contains stories, observations, and notes written on tally sheets by Squirrel Sighters during the Census. Individual stories have been tagged with common story themes, such as “squirrel experience,” “park experience,” “dogs,” “other animals,” “accidental poems,” and “squirrels acting odd.”

Who Manages This Data Collection?

The Squirrel Census, based in Atlanta, GA, manages this data. The Central Park Squirrel Census is one of three major counts of squirrels performed by the team. The other two occurred in Inman Park, an historic Atlanta neighborhood. The Squirrel Census uses a wildlife counting methodology and formula originally created by biologist Vagn Flyger. The data collected was used by the Squirrel Census to create the *Central Park Squirrel Census 2019 Report*, which includes:

* a five-foot-long map of Central Park that is one of the most comprehensive surveys of the green space ever created (the first major update since 1994) and includes observations on human activity in the park and at least two newly named locations
* a five-foot-long “celestial” chart showing squirrel locations, population densities, fur coloration patterns, and other data
* a “Squirrel Supplemental” with 37 pages of additional squirrel data, insights, and stories
* the “Central Park Squirrel Census Audio Report,” a 45-RPM experiential soundtrack of the park using notes gathered during the Census and read by Squirrel Sighters and the Squirrel Census team
* postcards, a “baseball card,” and other fun

The Report is available for purchase on the Census website (thesquirrelcensus.com).

The Central Park Squirrel Census was completed for many reasons: to learn more about the populations and behaviors of the Eastern gray (which is so common that it’s often overlooked in academic studies); to tell a data-driven narrative about Central Park and urban green spaces in general; to engage in citizen science and community building; and to transform the space of Central Park into an art project and story that unfolded in real time.

**Get Started With This Data:**

* What human activities were happening in different parts of the park during the Census?
* How does squirrel fur color change throughout the park?
* What stories did Squirrel Sighters record about their time counting squirrels?

**Columns (Fields, Attributes):**

# Hectare Data

\_file name hectare-data.csv\_

### Hectare

ID tag, which is derived from the hectare grid used to divide and count the park area. One axis that runs predominantly north-to-south is numerical (1-42), and the axis that runs predominantly east-to-west is alphabetical (A-I).

### Shift

Value is either "AM" or "PM," to communicate whether the sighting session occurred in the morning or late afternoon.

### Date

Concatenation of the sighting session month, day, and year (MMDDYYYY).

### Anonymized Sighter

Sighter names were alphabetized then assigned a number (1-267) so that the individual abilities and characteristics of each sighter could be taken into account.

### Sighter Observed Weather Data

Each sighter was asked to describe the weather conditions before starting each sighting session. Weather values varied widely, and are in some cases inaccurate.

### Litter

Value can be "None", "Some" or "Abundant."

### Litter Notes

Sighters occasionally added commentary on the amount or quality of litter. These notes are provided here.

### Other Animal Sightings

Comma separated values indicating other animals sighted in the hectare. A list of other animals common to the park were provided; however, other animals were listed as well.

### Hectare Conditions

Value is one of the following: “Calm”, “Moderate”, “Calm, busy” or “Busy.” The difference between “moderate” and “calm, busy” is as follows: “moderate” was either entered by the sighter, or translated from an entry that described a condition somewhere in-between busy and calm. “Calm, busy” was either entered by the sighter or translated from an entry that described discrete hectare sections as busy, but other hectare areas as separately calm.

### Hectare Conditions Notes

Sighters occasionally added commentary on the hectare conditions. These notes are provided here.

### Number of Sighters

The number of sighters that observed the hectare for the sighting session. Values range from "1" to "3."

### Number of Squirrels

The number of squirrels sighted in the hectare during the sighting session.

### Total Time of Sighting

The sighting session duration, in minutes.

**#Squirrel Data**

**\_file name squirrel-data.csv\_**

**### X**

**Longitude coordinate for squirrel sighting point**

**### Y**

**Latitude coordinate for squirrel sighting point**

**### Unique Squirrel ID**

Identification tag for each squirrel sightings. The tag is comprised of "Hectare ID" + "Shift" + "Date" (MMDD) + "Hectare Squirrel Number."

**### Hectare ID tag,** which is derived from the hectare grid used to divide and count the park area. One axis that runs predominantly north-to-south is numerical (1-42), and the axis that runs predominantly east-to-west is alphabetical (A-I).

**### Shift**

**Value is either "AM" or "PM," to communicate whether the sighting session occurred in the morning or late afternoon.**

**### Date**

Concatenation of the sighting session month, day, and year (MMDDYYYY).

**### Hectare Squirrel Number**

Number within the chronological sequence of squirrel sightings for a discrete sighting session.

**### Age**

Value is either "Adult" or "Juvenile."

**### Primary Fur Color**

Value is either "Gray," "Cinnamon," or "Black."

**### Highlight Fur Color**

Discrete value or string values comprised of "Gray," "Cinnamon," **“Black,” or "White."**

**### Combination of Primary and Highlight Color**

A combination of the previous two columns; this column gives the total permutations of primary and highlight colors observed.

**### Color Notes**

Sighters occasionally added commentary on the squirrel fur conditions. These notes are provided here.

**### Location Value is either "Ground Plane" or "Above Ground."** Sighters were instructed to indicate the location of where the squirrel was when first sighted.

**### Above Ground Sighter Measurement**

For squirrel sightings on the ground plane, fields were populated with a value of “FALSE.”

**### Specific Location**

Sighters occasionally added commentary on the squirrel location. These notes are provided here.

**### Running**

Squirrel was seen running.

**### Chasing**

Squirrel was seen chasing another squirrel.

**### Climbing**

Squirrel was seen climbing a tree or other environmental landmark.

**### Eating**

Squirrel was seen eating.

**### Foraging**

Squirrel was seen foraging for food.

**### OtherActivities**

**### Kuks**

Squirrel was heard kukking, a chirpy vocal communication used for a variety of reasons.

**### Quaas**

Squirrel was heard quaaing, an elongated vocal communication which can indicate the presence of a ground predator such as a dog.

**### Moans**

Squirrel was heard moaning, a high-pitched vocal communication which can indicate the presence of an air predator such as a hawk.

**### Tail Flags**

Squirrel was seen flagging its tail. Flagging is a whipping motion used to exaggerate squirrel's size and confuse rivals or predators. Looks as if the squirrel is scribbling with tail into the air.

**### Tail Twitches**

Squirrel was seen twitching its tail. Looks like a wave running through the tail, like a breakdancer doing the arm wave. Often used to communicate interest, curiosity.

**### Approaches**

Squirrel was seen approaching human, seeking food.

**### Indifferent**

Squirrel was indifferent to human presence.

**### Runs From**

Squirrel was seen running from humans, seeing them as a threat.

**### Other Interactions**

Sighter notes on other types of interactions between squirrels and humans.

#Squirrel Stories

\_file name squirrel-stories.csv\_

### Hectare

ID tag, which is derived from the hectare grid used to divide and count the park area. One axis that runs predominantly north-to-south is numerical (1-42), and the axis that runs predominantly east-to-west is alphabetical (A-I).

### Shift

Value is either "AM" or "PM," to communicate whether the sighting session occurred in the morning or late afternoon.

### Date

Concatenation of the sighting session month, day, and year (MMDDYYYY).

### Note Squirrel & Park Stories

Copy notated by sighter while observing hectare

### Story Topic: Squirrel Experience or Squirrel Story

This tag indicates sighter wrote down story that dealt primarily with squirrels and their experience of the park.

### Story Topic: Park Experience or Census Taker Story

This tag indicates sighter (or “Census taker”) wrote down story about other park goer(s) or their own experience in the park.

### Story Topic: Dogs

This tag indicates sighter noted story about dogs they observed.

### Story Topic: Other Animals

This tag indicates sighter noted observations about other animals in the park.

### Story Topic: Accidental Poems

This tag indicates a note from sighter that read, to the Census team, like short poems about the park.

### Story Topic: Squirrel Acting Odd

This tag indicates a note from sighter about squirrels that read, to the Census team, as odd or unusual squirrel behavior.

### Story Topic: Census Takers Recognized

This tag indicates a sighter (or “Census taker”) recorded a story about being recognized as part of the Central Park Squirrel Census by other park goer(s).

### Story Topic: Other

Random, uncategorized stories were filed here.

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