

CENTRAL PARK SQUIRRELS

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EDA

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CONCLUSION



INTRODUCTION

We all know that squirrels, more specifically the Eastern Gray Squirrel, is part of our everyday life in NYC.

Through our study, we would like to know more about them; for instance, what are the most common behaviors among the Eastern Gray Squirrels? What do they look like? Where do they exist?

We hypothesize that most squirrels observed will be adult, gray squirrels, and be seen performing more active behaviors than not.

OUR DATASET

- 2018 Central Park Squirrel Census (NYC Open Data)
- 3,023 Observed squirrels in Central Park
- Data was collected by hundreds of volunteers in October 2018
- Data consists of information regarding squirrel sighting, physical traits about the squirrel, and observed squirrel behaviors.

WHY THIS DATASET?

This topic is very unique, but also comprehensive in that there are plenty of observations and descriptive traits for us to learn about the squirrels. Because there is a sufficient amount of observations, we can possibly confirm the external validity of this sample representative of the NYC squirrel population.

PRIOR TO EDA...

We cleaned the data by:

- Dropping unwanted columns
- Dropping null observations
- Map Boolean values
- Check unique values and altering accordingly (hidden values)

Cleaned to 1817 observations!

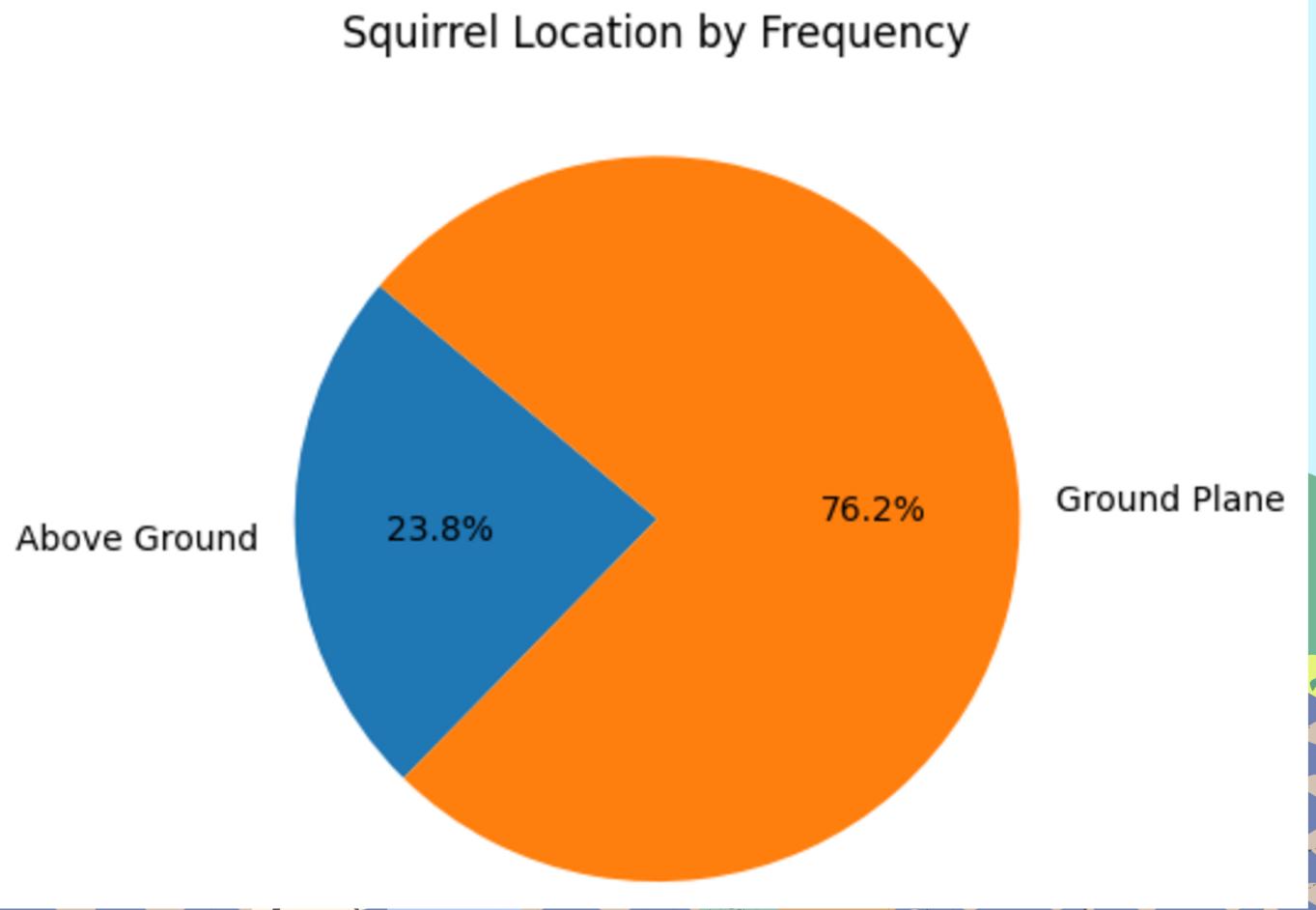
Data columns (total 26 columns):

#	Column	Non-Null Count	Dtype
0	X	1817	float64
1	Y	1817	float64
2	Unique Squirrel ID	1817	object
3	Hectare	1817	object
4	Shift	1817	object
5	Date	1817	int64
6	Hectare Squirrel Number	1817	int64
7	Age	1817	object
8	Primary Fur Color	1817	object
9	Highlight Fur Color	1817	object
10	Location	1817	object
11	Above Ground Sighter Measurement	1817	object
12	Running	1817	bool
13	Chasing	1817	bool
14	Climbing	1817	bool
15	Eating	1817	bool
16	Foraging	1817	bool
17	Kuks	1817	bool
18	Quaas	1817	bool
19	Moans	1817	bool
20	Tail flags	1817	bool
21	Tail twitches	1817	bool
22	Approaches	1817	bool
23	Indifferent	1817	bool
24	Runs from	1817	bool
25	Lat/Long	1817	object

WHERE ARE THEY LOCATED?

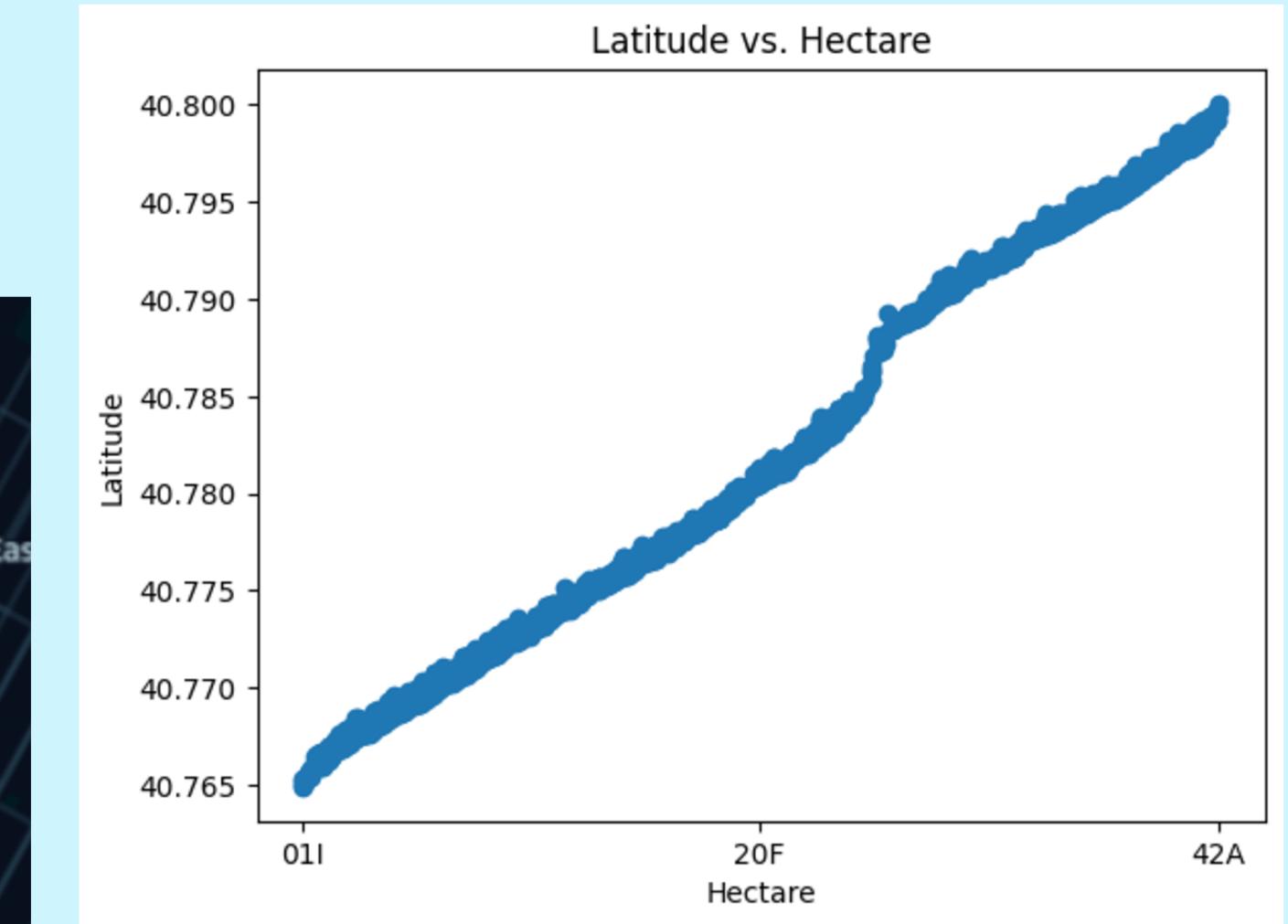


Squirrel Location by Frequency

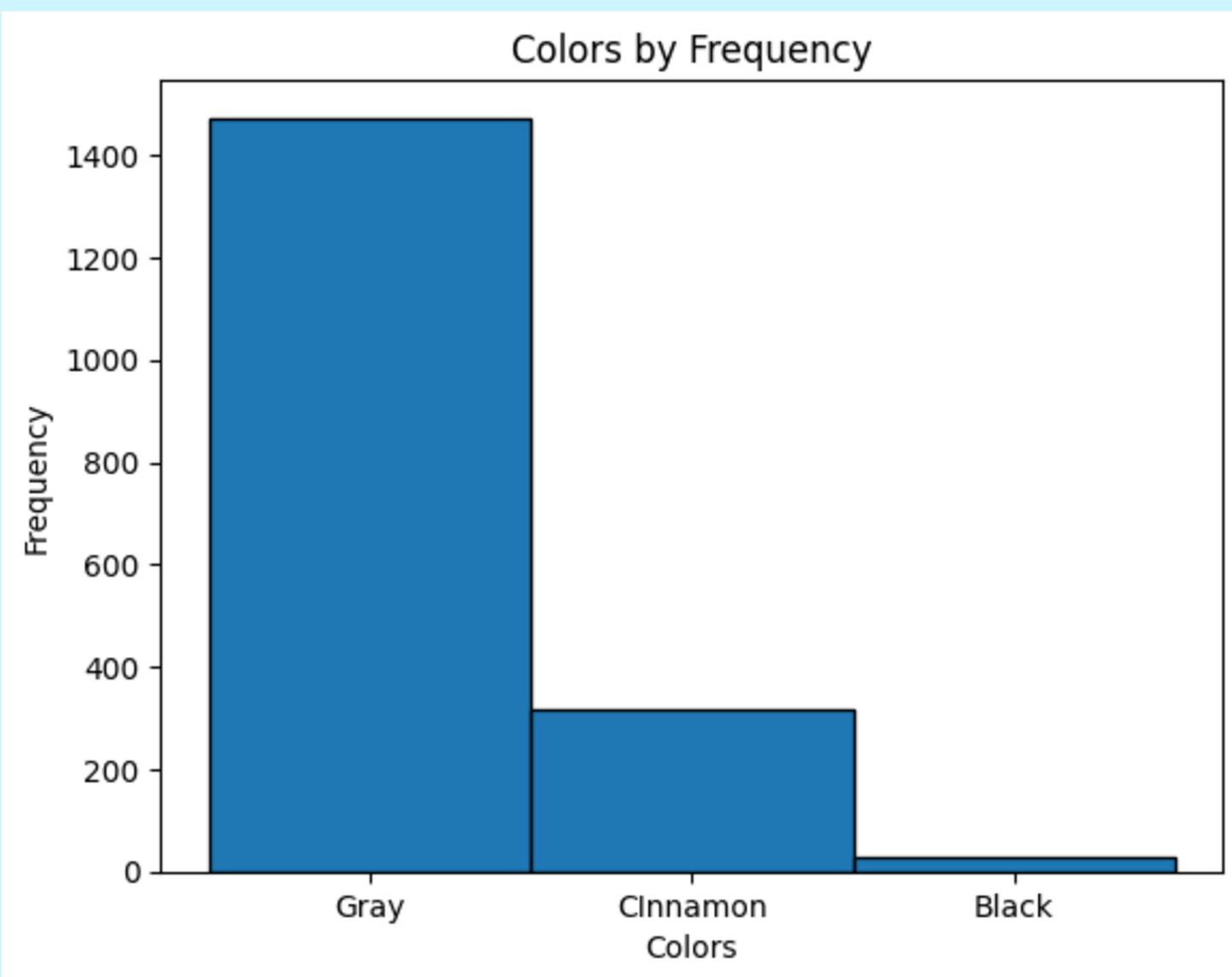


Ground Plane

Above Ground

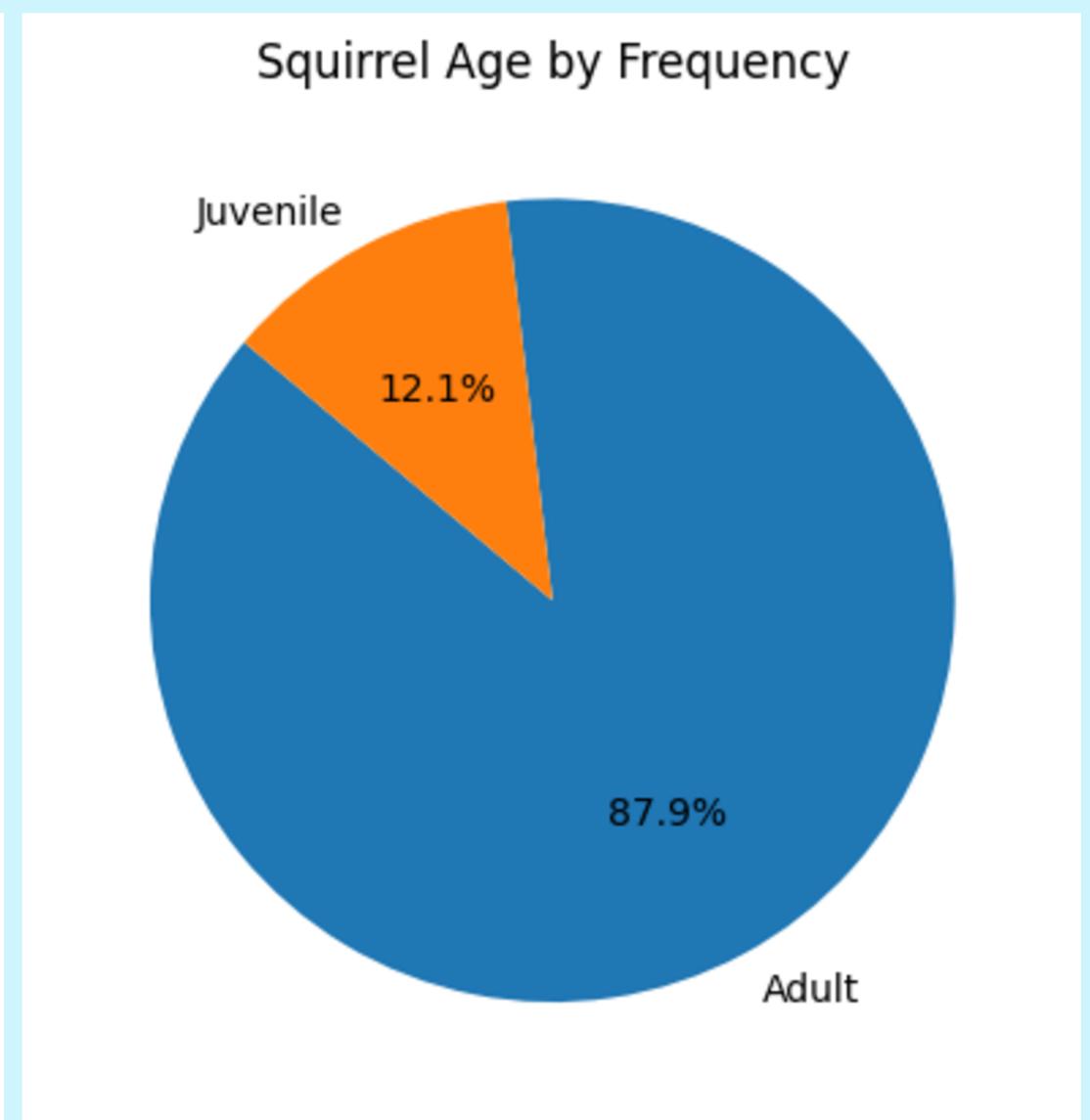


WHAT DO THEY LOOK LIKE?

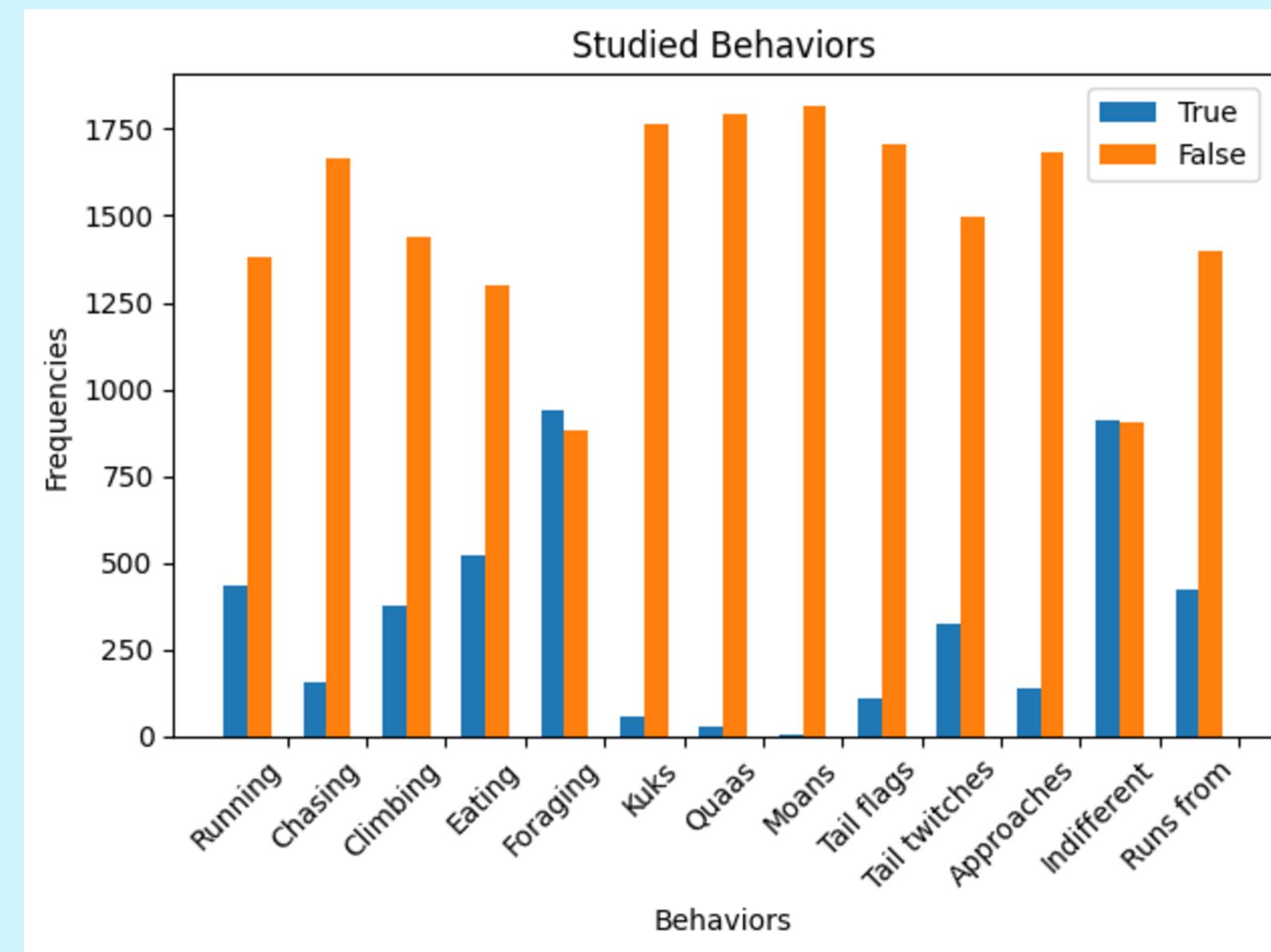


Highlight Fur Colors

white
black
cinnamon
gray



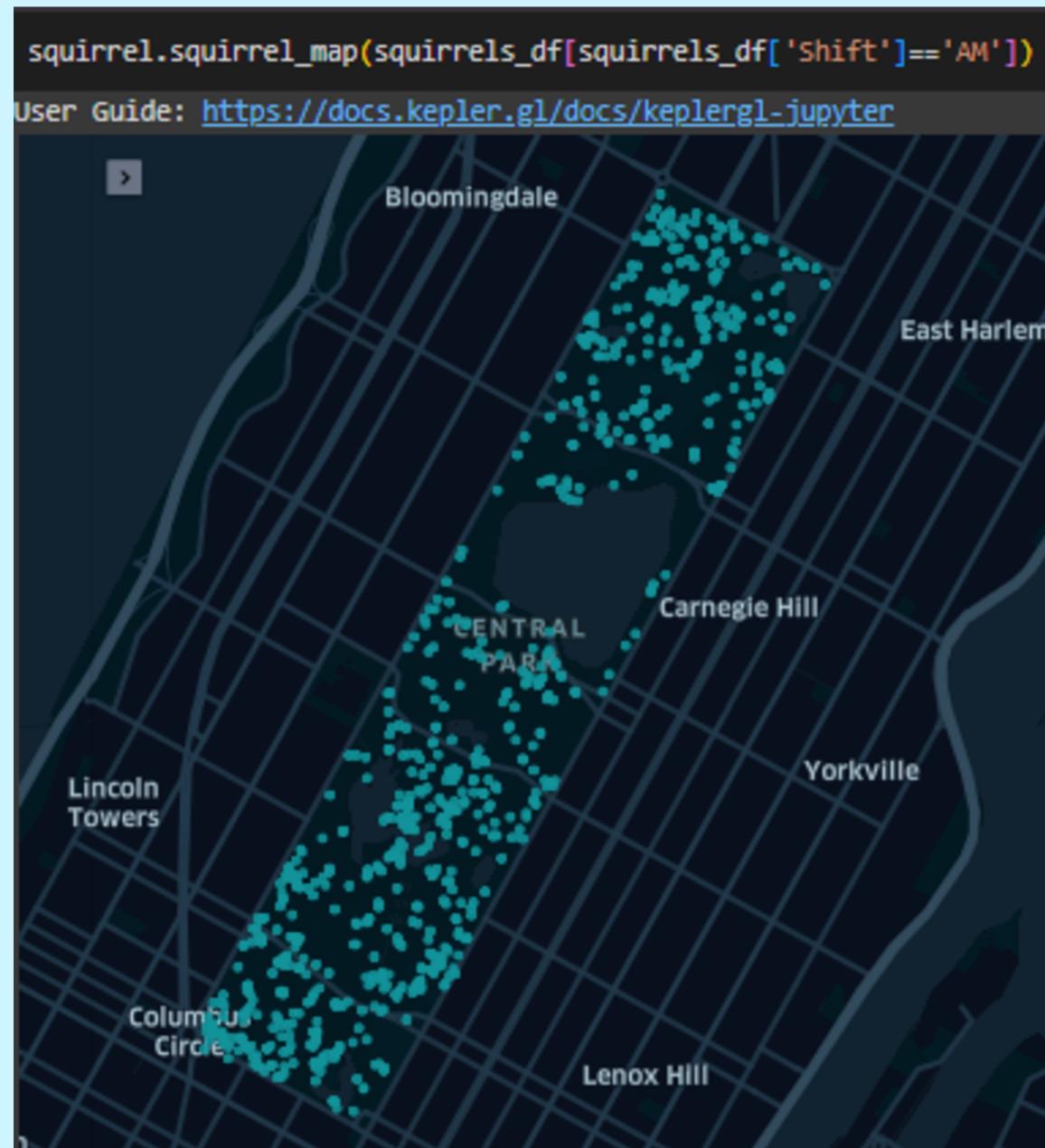
HOW DO THEY BEHAVE?



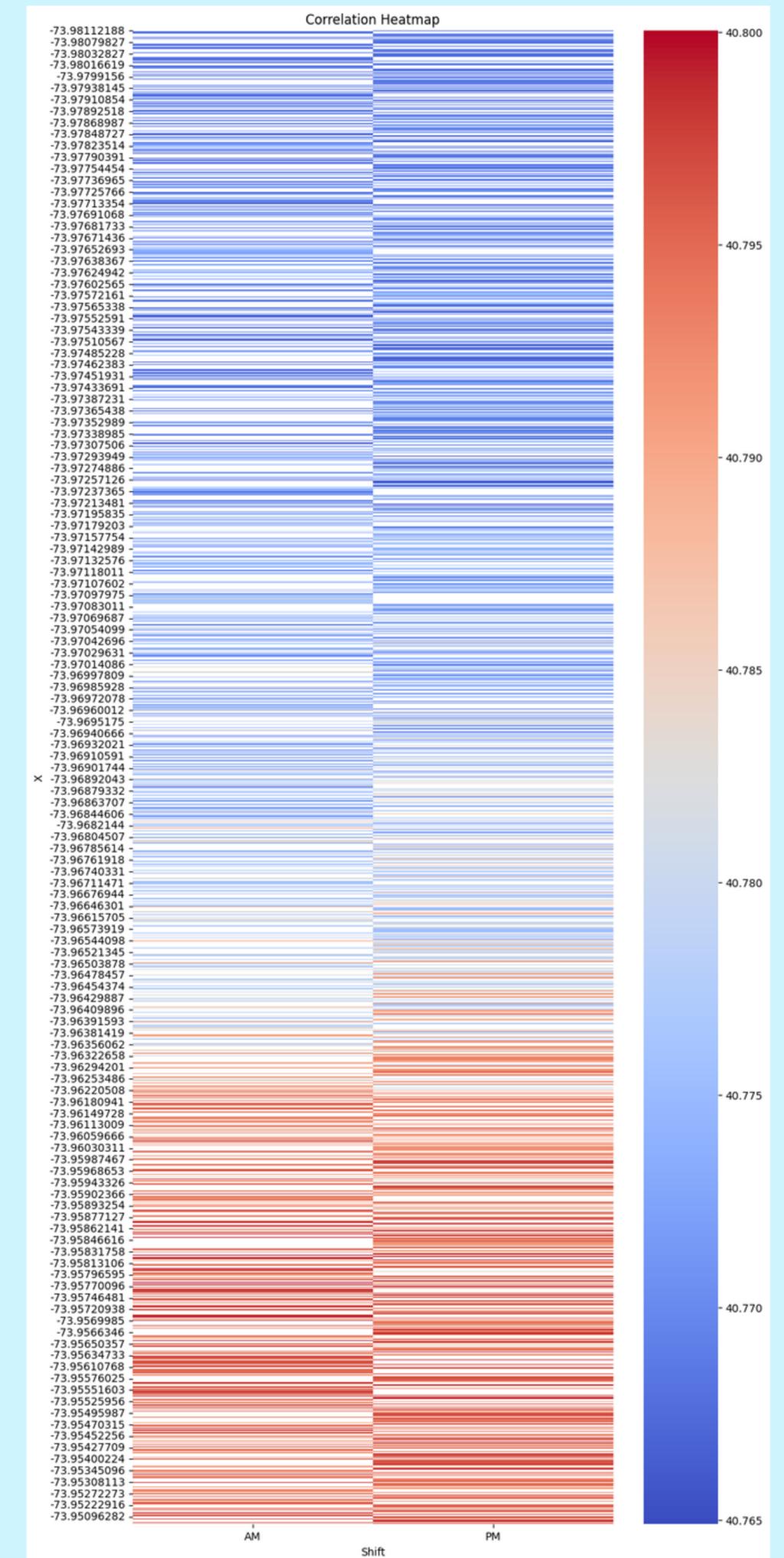
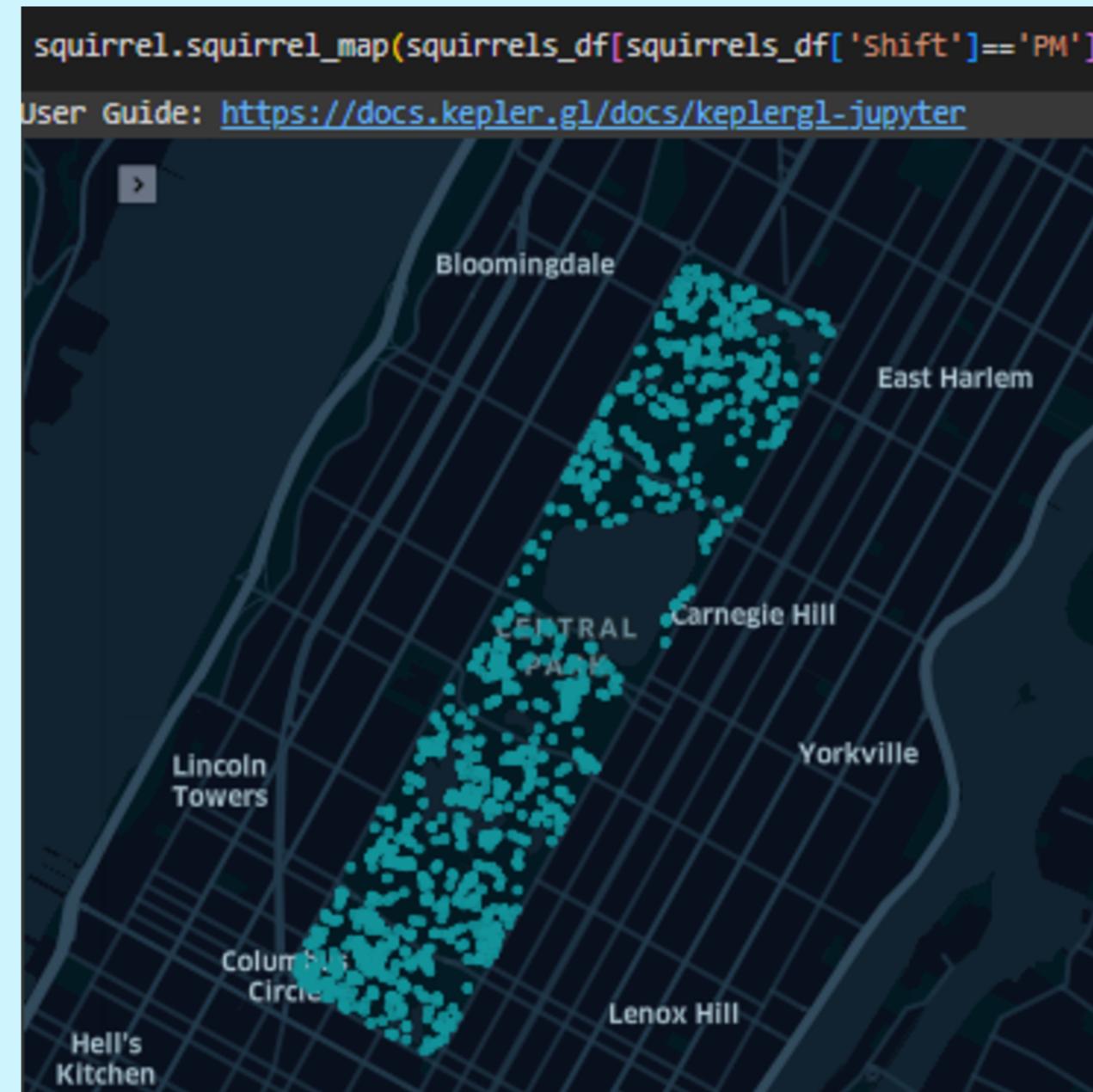
Running	False															All	
Climbing	False			True					False			True					
Eating	False	True		False	True		False	True		False	True	False	True				
Foraging	False	True	False	True	False	True	False	True	False	True	False	True	False	True			
Age																	
Adult	136	493	153	179	166	35	28	22	184	77	23	31	47	13	6	5	1598
Juvenile	24	48	36	14	31	5	6	5	27	5	4	5	6	1	2	0	219
All	160	541	189	193	197	40	34	27	211	82	27	36	53	14	8	5	1817

HOW DO THEY BEHAVE?

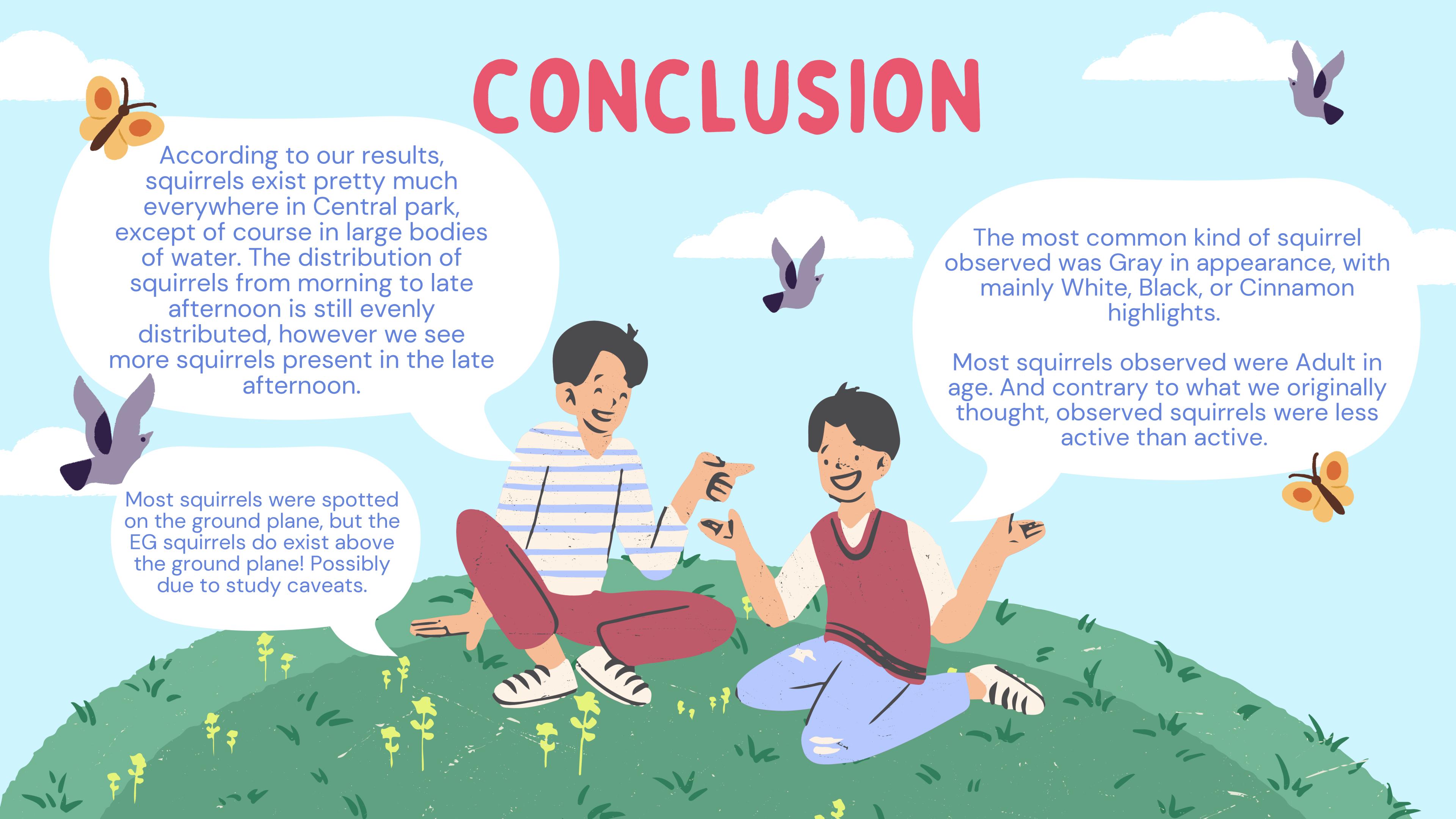
MORNING



LATE AFTERNOON



CONCLUSION



According to our results, squirrels exist pretty much everywhere in Central park, except of course in large bodies of water. The distribution of squirrels from morning to late afternoon is still evenly distributed, however we see more squirrels present in the late afternoon.

The most common kind of squirrel observed was Gray in appearance, with mainly White, Black, or Cinnamon highlights.

Most squirrels observed were Adult in age. And contrary to what we originally thought, observed squirrels were less active than active.

Most squirrels were spotted on the ground plane, but the EG squirrels do exist above the ground plane! Possibly due to study caveats.

Any questions?

THANK YOU!

