Weather and Death < Tengfei Zheng, github: Tengf, tz869>

Abstract: Since New York City has mutable weather patterns, animals living in the city do not have place to curve that. Through the analysis of location and temperature of dead animals to find out the relationship between them.

missing verb in sthis sentence

"to curve that": at best colloquial, but i think in fact that it is not an english expression

Introduction: If I can find the relation between weather changing and animals' death, it would help people to control the animals and saving them.

Data: The 311 data was too large to download and run in my computer, so I filtered that contains words "dead animal" online then download. Also there is no description about animal type. In the analysis I made an assumption that every conflict is independent and there were no any conflicts report same incident.

Methodology: I separated analysis into two parts. The first part is find the **distribution** of the places always find the dead animals. The most of dead animals were found in zip code 11234, 11230, 10314, 11223, 11219, 11229, 11210,11204, 11236, 11214, 11218, 10306, 10469, 10466, 10312, 11203, 11434, 11207, 11208, 11385. It shows in Map 1. To determine the reason of the death, I compared the industry zone and the place found dead animals shows in Map 2. It is difficult to say there is relation between animal death and industry zoning.

It shows -> this is shown

The second part is find which parameter influence animal death. I **made least squares regression** of maximum temperature data and conflict data(R2=0.399). The result shows in Graph 1. The death is strongly related to temperature.

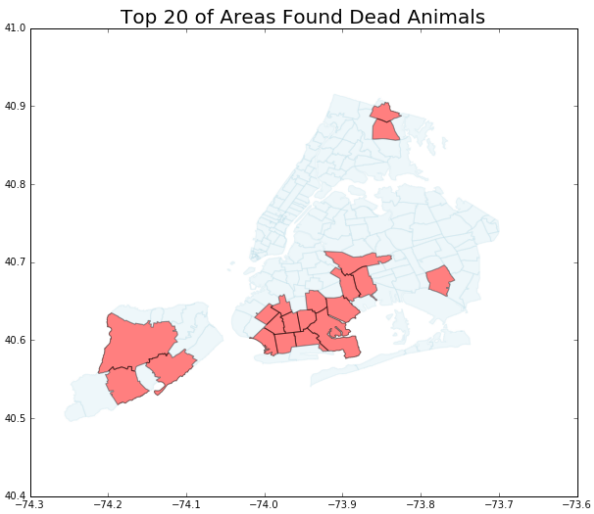
It shows -> this is shown

why did you think that?

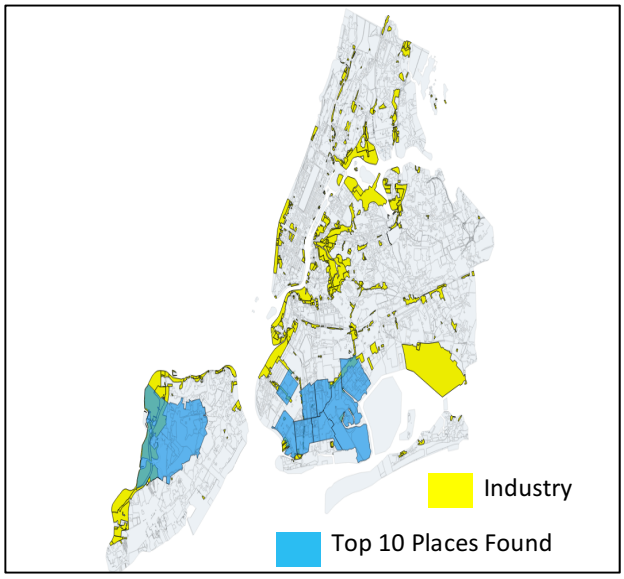
Conclusions: I found the animal death has no relation with factories, I thought that more dead animals would be found nearby factories. And I thought animals die when the temperature decrease to low temperature, therefore the result of regression shows

more animals die when temperature increase. It is clear that low temperature is not the main reason for animal death, but I did not find out the main reason.

Future work: I analyzed by zip code, however, the area of each zip code still big. In future work, I will analyze by block. And find more information about which animals dead, to analyze by different type animals.



Map 1. Top 20 Place Found Dead Animals



Map 2. The Relationship Of Top 10 Place Found Dead Animals And Industry Zoning

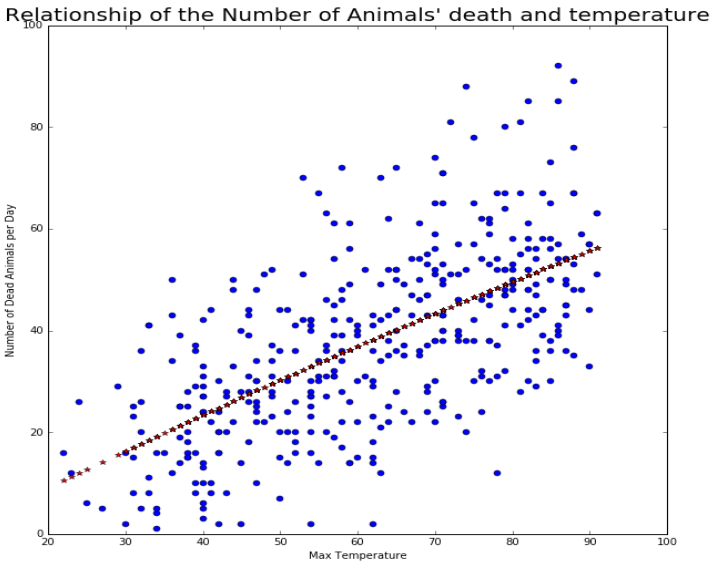
the maps should be in the same coordinates, and same axis ratio, to allow a fair comparison. your right habd map has stretched out axes which deform it compared to the left hand one

This was a good idea, and the initial assumption of weather effects was reasonable. it is interesting taht you found something else, but you did not address the possible reasons for it.

Your english prose has some issues. I recommand you use a program like for example Grammarly (grammarly.com) to correct your drafts.

There is no strong quantitative analysis: no mention of how robust the regression on temperature is, how much variance it explains etc. The only mention to an analytical comparison is that you did look at the maps, by eye,a nd cound no correlationsl

The main issue is the assumption that the number of calls is a good metric for them number of deaths: what you have not thought about is that people are more likely to notice a dead animle in warm weather, because of the smell, and that they are more likely to be disturbed and call in warm weather, because of the smell and hygiene risk.



Graph 1. Relationship Of Number Of Dead Animal Found And Temperature

Links:

311 Service Requests from 2010 to Present (https://data.cityofnewyork.us/Social-Services/311-Service-Requests-from-2010-to-Present/erm2-nwe9)

Historical Weather (http://www.wunderground.com/history/)

Bibliography

- Relation of Total and Cardiovascular Death Rates to Climate System, Temperature, Barometric Pressure, and Respiratory Infection. http://www.ncbi.nlm.nih.gov/pubmed/26297511
- Climate change effects on birds http://www.eoearth.org/view/article/51cbed457896bb431f690fbd/
- Causes of Bird Mortality http://www.sibleyguides.com/conservation/causes-of-bird-mortality/
- Why did my bird suddenly die? https://avianandexoticvets.com/why-did-my-bird-suddenly-die/