Peer Review 2: Angry Hawk
Name of Reviewer: venal_asiaticmouflon

Summary: This paper aims to understand the relationship between weight and elevation in male redpolls (which are super cute) from 1992-2007. The data is how it is described and is appropriate for what is being tested. I can see the evolutionary relationship between body mass and elevation, and this rough draft is a good start. Overall, this paper is conceptually good but needs further development.

Overall Comments:

- The graphs look good but were somewhat hard to interpret and compare, especially the last two. There may be a better way to represent your data.
- Adding more to your discussion will strengthen the paper as a whole. Hopefully, as you build upon your discussion, you will also include more sources.
- I did not see any issues with typos or syntax.

Specific Comments:

- *In the data collection part of your materials and methods:* You explained how the authors of your dataset surveyed over 250,000 birds; however, you did not say how many data points you actually used. We don't really need to know that the authors collected data from over 250,000 birds since you only used the data from one species. You only used the data from male redpolls, but how many data points did that leave you with?
- You may want to choose a different statistical analysis for your data. You used a Pearson's correlation test, and one of the assumptions of this test is that a linear association exists between variables x and y. Based on the graphs you provided, there did not appear to be a linear association. I recommend looking into a Spearman correlation test. Also, I highly recommend this video for a clear explanation of Pearson's correlation test (the same person also has a video on Spearman's correlation): https://www.youtube.com/watch?v=e4ApDqG6MGE

Suggestions:

- Your elevation vs. weight graphs are good, but boxplots could better represent the data. Representing your data by boxplots would summarize your data with fewer graphs. "Box plots are used to show distributions of numeric data values, especially when you want to compare them between multiple groups. They are built to provide high-level information at a glance, offering general information about a group of data's symmetry, skew, variance, and outliers." - Google. *This is just a suggestion, but I think it would improve how you represent your data. I drew an example for you below. I believe comparing the years side by side would make it easier to draw conclusions from the data.*
- What is your hypothesis as to why the results are the way they are? You have a brief discussion, and to lengthen it, you might discuss why birds at higher elevations have lower weights. You supported your hypothesis, but why did you hypothesize that in the first place? Is it because there is less oxygen at higher altitudes? It may be beneficial to

discuss this. Additionally, you say that your graphs and analyses supported your hypothesis but did not discuss how they supported it.