THE EFFECT CLIMATE CHANGE HAS ON CANADA GEESE (*Branta canadensis*) MIGRATION

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ABSTRACT:

This project was done on the effect climate change has on Canada goose (*Branta canadensis*) migration. This project was done because of the site of geese waste on a field where there was less to none about twenty years previous. To begin collecting data for this project the materials needed are: an alchohol filled air thermometer, a string attatched to the thermometer and a GPS to locate a site to collect data. The air temperatures were taken in degrees celsius over a short grass field. Nine temperatures were collected for ten days and were then put into a graph.

PROBLEM:

The reason I chose this project is because I play soccer and when I'm on the field I notice a lot of geese waste. My mother played soccer too as a child and when she played she barely noticed any at all. I was curious to know why there seemed to more geese in Akron OH and made it my science project.

HYPOTHESIS:

My hypothesis is that as air temperature rises the amount of Canada geese in Akron OH will rise, and as air temperature lowers the amount of Canada geese in Akron OH will lower.

MATERIALS:

- AIR THERMOMETER
- STRING
- GPS
- WWW.GLOBE.GOV

PROCEDURE:

To take air temperature I used an air thermometer measuring in degrees Celsius. I chose one site over a short grass-field where I collected data for ten days taking nine temperatures per day.

1. Tie one end of a piece of string securely to the end of the thermometer and the other end to a rubber band.

2. Slip the rubber band around the wrist so that the thermometer is not broken if it is accidently dropped on the ground.

3. Hold the thermometer at chest height, in the shade and away from your body for three minutes.

4. At the end of three minutes, record the temperature reading in your science log.

5. Hold the thermometer the same way for another minute.

6. At the end of the minute, record the temperature once again. If the temperature is within 0.5ºC of the previous reading, record the reading on your data sheet.

7. If the two temperatures differ more than 0.5ºC, repeat steps 5 and 6 again.

8. If two consecutive temperatures readings are not within 0.5ºC of one another after 7 minutes, record the last measurement on the data sheet and report your other four measurements in the comments section along with a note that your reading wasn't stable after 7 minutes.

RESULTS:

ALL TEMPERATURES WERE TAKEN IN DEGREES CELSIUS

DAY-1: 11, 10, 10, 10, 11, 11, 11, 11, Average: 11.7

DAY-2: 7, 7, 7, 7, 7, 7, 7, 8, 7, Average: 7.1

DAY-3: 3, 3, 3, 4, 4, 3, 3, 3, 3, Average: 3.2

DAY-4: 5, 5, 5, 4, 4, 3, 3, 3, 3, Average: 4.8

DAY-5: 14, 14, 14, 13, 13, 13, 14, 14, 14, Average: 13.7

DAY-6: 8, 7, 3, 3, 7, 8, 7, 7, 7, Average: 6.3

DAY-7: 23, 23, 20, 20, 20, 24, 23, 23, 23, Average: 22.1

DAY-8: 17, 17, 17, 17, 17, 16, 17, 17, 17, Average: 16.9

DAY-9: 12, 12, 12, 12, 11, 11, 12, 12, 12, Average: 11.8

DAY-10: 9, 9, 9, 10, 9, 9, 9, 8, 8, 8, Average: 8.9

CONCLUSION:

My hypothesis was that as air temperature rises, the population of Canada geese in Akron OH will rise. As air temperature lowers so would Canada geese population. Considering the data I collected and geese sightings my hypothesis was supported by my data. There are more geese in Akron now then there was when my mother was a child.

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GRAPH: