



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

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| <b>Name(s)</b><br>Mackenzie L. Spencer  | <b>Project Number</b><br><b>J2017</b> |
| <b>Project Title</b><br><b>Spaced Out: A Study of Perching Distances between Pigeons</b>  |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b><br/>My objective was to find out if there is a common perching distance between pigeons on different perches. One population perched on light post, the other on telephone wires.</p> <p><b>Methods/Materials</b><br/>To start my experiment I used a sextant to find the distance of side "a" of a right triangle, or how tall the lamp post and telephone wire was. I then paced out side "b" from the base of the lamp post and telephone wire to the point where I was taking the pictures. I then used these two distances to calculate side "c" (the hypotenuse) of my right triangle which was the distance from the pigeons. To measure the distance between the pigeons I put pieces of colored tape at different distances from each other on a handball backboard and took pictures of the tape at the three different distances I took the pigeon pictures from. I then used the tape pictures as my measurement tool to measure the distance between pigeons in the photos at each of the perch locations. I then tallied the data and analyzed the information in pie charts for each of the different populations and the populations combined.</p> <p><b>Results</b><br/>I found that there is a common or preferred perching distance between the pigeons, but it was somewhat dependent on the size of their perch. For the lamp post pigeons the pigeons preferred a distance from 4 to 13 inches apart while the telephone wire pigeons preferred a distance from 17 to 29 inches and 46 to 50 inches apart. Therefore, the larger the perch the larger the distance is between pigeons. However, I found, when the data was combined for the two perches, 67% of the pigeons still perched less than 41 inches apart which showed that the perch size can only affect the perching distance so much and then their desire to be social takes over.</p> <p><b>Conclusions/Discussion</b><br/>My results somewhat supported my hypothesis that there would be a common or preferred distance between the pigeons. It supported it because there was a common distance between the pigeons. It did not support it because depending on the perches there was a larger or smaller common distance between the pigeons. The information gathered from this project expands our knowledge of zoology because by reading about my project we can use the information in future projects in management of pigeons or similar social birds.</p> |                                       |
| <b>Summary Statement</b><br>My project is about the perching distance between pigeons and how it relates to their perch size.   |                                       |
| <b>Help Received</b><br>Parents drove me to pigeon destination and craft store to buy supplies for board; cousin taught me how to use sextant; Mother's co-worker printed out title on large-scale printer at work.   |                                       |