



# CALIFORNIA STATE SCIENCE FAIR 2015 PROJECT SUMMARY

<b>Name(s)</b> <b>Zoe R. Fairlie</b>	<b>Project Number</b> <b>S1209</b>
<b>Project Title</b> <b>Mountain Lions and Pumas and Cougars, Oh My: Are They Really as Dangerous as You Think?</b>	
<div><b>Objectives/Goals</b><p>Mountain lions are being spotted all over Santa Cruz, even downtown. Mountain lions are powerful and dangerous animals with the ability to harm people. The purpose of this project is to research all previous mountain lion attacks, fatal and non-fatal, to determine if there any correlations or relations between them. I focused on patterns in victim characteristics, mountain lion characteristics, and environmental characteristics. Whenever an attack occurs people speculate why it occurred, but they don't look at previous attacks. I looked at all mountain lion attacks together to see if there were any connections between them.</p></div> <div><b>Abstract</b><p>I did not conduct a traditional experiment or build something for this experiment because mountain lions are too dangerous. Instead, I collected data from several different sources. The most important source of data was from California Department of Fish and Wildlife, which provided information on every verified attack on a human occurring in California in the past 30 years. I gathered extensive information on each of these attacks from online searches through web pages and news articles. I categorized information by three factors: i) victim characteristics, ii) mountain lion characteristics, and iii) environmental characteristics. I also created several maps to help analyze data, along with tables.</p></div> <div><b>Methods/Materials</b><p>I did not conduct a traditional experiment or build something for this experiment because mountain lions are too dangerous. Instead, I collected data from several different sources. The most important source of data was from California Department of Fish and Wildlife, which provided information on every verified attack on a human occurring in California in the past 30 years. I gathered extensive information on each of these attacks from online searches through web pages and news articles. I categorized information by three factors: i) victim characteristics, ii) mountain lion characteristics, and iii) environmental characteristics. I also created several maps to help analyze data, along with tables.</p></div> <div><b>Results</b><p>I found that most mountain lion attacks happened upon smaller sized people. But unlike most people would think, the victims were not always alone or in small groups. Some victims were with up to 10 other people. They also were mostly hikers but some were bikers. In months previous to the attacks, there was a lack of rainfall, and the areas were in drought conditions. There were no patterns in season the attack occurred in, or in geographical location.</p></div> <div><b>Conclusions/Discussion</b><p>Some of my hypotheses from my experiment were correct and some were incorrect. The advice of being tall around a mountain lion appears to be correct. I learned that most victims were small. If drought conditions in California continue then there may be more frequent mountain lion attacks. When there is a lack of food mountain lions are stressed and they may attack humans. Drought conditions could make this worse. In most attacks surprisingly the victim wasn't alone, but in the fatal attacks the victim was alone. It is important to have someone accompany you when in mountain lion areas.</p></div>	
<b>Summary Statement</b> <p>My experiment is about previous mountain lion attacks and how they relate to each other.</p>	
<b>Help Received</b> <p>My dad helped get data on distribution of person heights.</p>	