



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Leilani N. Pemberton	Project Number S1916
Project Title The Effect of Air Temperature on the Stridulation Rate of Acheta domesitcus	
Abstract Objectives/Goals The objective is to determine if air temperature affects the stridulation rate of Acheta domesticus. Methods/Materials 6 terrariums were set-up with one male and one female cricket in each terrarium. Using a stopwatch and thermometer, the stridulation rate (# of chirps per 15 seconds) was determined for all 6 crickets at 5 different temperatures. There were 3 trials for each cricket. First the average stridulation rate was calculated for each cricket at 5 different temperatures. Then the total average stridulation rate was calculated (total avg. stridulation rate = the avg. stridulation rate for all 6 crickets divided by 6). Results The total average stridulation rate at 27 degrees Celsius was 29.22 chirps. The total average stridulation rate at 13 degrees Celsius was 2.33 chirps. Cricket #1 had the highest average stridulation rate at all temperatures. The stridulation rate increased as the air temperature increased. The data showed that a one-degree difference in temperature impacted the stridulation rate. Conclusions/Discussion The air temperature does affect the stridulation rate of Acheta domesticus. Thus, my hypothesis that air temperature would affect the stridulation rate of Acheta domesticus was supported by the results.	
Summary Statement My project is about the effect of air temperature on the stridulation rate of Acheta domesticus.	
Help Received Mother checked out reference books and helped clean terrariums.	