



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Lauren E. Rostykus	Project Number J1922
Project Title Will Temperature Affect the Crawling Speed of Darkling Beetle Larva?	
Abstract Objectives/Goals Does different temperatures effect the activity level of beetle larva? We will use crawling speed to determine this. Methods/Materials Using Darkling beetles, we placed 10 beetles into different controlled temperature environments. 40 degrees, 55 degrees, 72 degrees, 80 degrees, and 90 degrees. (10 beetles in each environment) - made a track using tagboard I placed oatmeal, apple, and lamp at end of track. I used these variables for incentive for beetle cross track. lamp was used for heat. placed at different positions. I recorded time it took for beetls to move across track, and when they started to move. After one minute if no movement, that was also recorded. Repeated 10 trails for each temperature environment. Results The 80 temperature showed the most activity. fastest time across track and started quicker. 72 degrees was pretty close, but not as fast of time. Started about same time however. 55 degrees, little activity. Took a long time for beetles to cross track. Very sluggish. Started moving early, but at a very low rate of speed. No movement from the two extreme temperatures. 40 degrees and 90 degrees. Beetles were alive however. Conclusions/Discussion This showed me that temperature does affect larva activity. If you needed to hadle larva and wanted them nonactive, you could place them into lower temperatures. This will not harm them, just slow them down. This also shows that you could control insect activity by keeping cool temperatures around plants instead of pesticide. As long as it wasn't so cold you damaged the plant.	
Summary Statement Temperature effects larva activity	
Help Received Teacher taught scientific process, mom helped with board and supervision	