



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

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Project Title Terrestrial Salamanders of the San Lorenzo Valley	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective is to determine the micro- and macro- climate factors that lead to the presence of terrestrial salamanders in our study area, Henry Cowell State Park.</p> <p>Methods/Materials A 20-meter measuring tape was used to set up 14 transects, each 12 meters in length. A single transect is composed of 5 plywood artificial cover objects (ACOs), each placed in succession 3 meters apart. Every 14 days monitoring takes place, where the boards are lifted, the number of salamanders is counted, and climactic factors are recorded using a LabQuest II Pro device.</p> <p>Results Significantly more salamanders are found in our sites during the moister periods of 12/15/13 to 3/30/14 compared to the drier periods from 6/2/13 to 12/15/13. There are significantly more Yellow-eyed Ensatina salamanders compared to any other species found in our study area. Salamanders are more commonly found during times of high soil moisture, high relative humidity, low soil temperature and low air temperature.</p> <p>Conclusions/Discussion Salamanders congregate under the ACOs during times of higher precipitation as the soil moisture and relative humidity increase and the soil temperature and air temperature decrease, which suggests that salamanders respond to climatic factors when looking for a suitable habitat.</p>	
Summary Statement This project is conducted to monitor salamanders, an ecological indicator species, and view the factors that lead to their presence in our study area.	
Help Received Our teacher, Jane Orbuch, guided the project foundations and our mentor, Stefanie Bourcier, assists in the overall project maintenance.	