



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Kevin M. Shear	<b>Project Number</b> <b>J0929</b>
<b>Project Title</b> <b>Reptile Road Rage: The Effects of Urbanization on Reptiles and Amphibians</b>	
<b>Objectives/Goals</b> My objectives in this project were to find out whether or not Genesee Avenue, a road in Clairemont San Diego, effects the reptiles and amphibians of Tecolote Canyon.	
<b>Abstract</b>	
<b>Methods/Materials</b> To begin the study a permit was required from the Tri-City Parks and Recreation Department, City of San Diego California. Fifty 2X2 foot boards were placed in the canyon. They were laid in five linear arrays of ten boards each and placed approximetly 25 feet apart. The coverboards were labeled and placed on both the west and east sides of Genesee Avenue which cuts right through Tecolote canyon. I also used a GPS (Global Positioning Satellite)to record the exact location. Each array started close to the road (board 1 being the closest to the road and board 10 being the furthest from the road). I would go out and look under all fifty boards for reptiles and amphibians. All of my sightings were recorded into a field log and then transferred into an Excel data base.	
<b>Results</b> In my project I found that more reptiles and amphibians were found further away from the road. Boards 1 through 4 are closest to the road and I had more sightings in boards 5 through 10 which are further from the road.	
<b>Conclusions/Discussion</b> At the conclusion of this study I found that Genesee Avenue affects reptile populations in that less reptiles are sighted near the road. This supports my hypothesis, that fragmentation of natural habitats affects reptile and amphibian communities, because most of the sightings were found approximetly 125 feet from the road indicating that the road is a threat and preventing an even spread of reptile communities. This project expands our knowledge about environmental science by showing us that we need to be considerate of our surrounding natural habitats when buliding roads.	
<b>Summary Statement</b> My project is about finding whether or not Genesee Avenue affects reptiles and amphibians.	
<b>Help Received</b> Mother helped edit report; herpatologist, Robert E. Lovich, helped set up project, Excel data and advised me on how to handle reptiles and amphibians.	