



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Brian K. Schuh	Project Number J2013
Project Title Snakes in the Wild	
Objectives/Goals Does the species of snake and how it lives determine the size of the head and the body? If a snake is poisonous or a snake is nonpoisonous and lives in a rainforest, then the size of the head and body will be bigger than nonpoisonous snakes that live in habitats other than rainforests. I believe this because in the rainforest snakes must deal with larger prey and this should make their heads and bodies bigger. I also know that poisonous snakes have to hold their poison in their head right behind their eyes so this will make poisonous snakes have bigger and wider heads than nonpoisonous snakes.	
Abstract Methods/Materials I started the experiment by searching for places that I could get my hand on some real snake skeletons. I finally found some snake skeletons at the Santa Barbara Museum of Natural History with their vertebrate scientist. I then measured in 7 different spots of the skeletons: Head length, Head width, Total Length, 10 cm behind the head, Widest spot of the body, At their vent, At the end of the tail. Materials: Snake Skeletons from the Santa Barbara Museum of Natural History; Snake Skeletons from UCSB Center for Biodiversity & Ecological Restoration; Metric System Caliper.	
Results The results show that if the snake is poisonous or lives in the rain forest then the head and body size will be bigger than the nonpoisonous snakes that do not live in the rainforest. The results support my hypotheses that poisonous snakes or nonpoisonous snakes that live in the rainforest will be bigger. This makes perfect sense because snakes that are poisonous have to have room in the head to keep their poison and snakes in the rainforest will be bigger because they have to deal with larger prey.	
Conclusions/Discussion The more humid and more trees there are in the area the bigger the snakes should be, there are always exceptions especially in the poisonous snake category. This is because the more humid you get the larger the prey items are so the larger the snake is. Some of the specimens were incomplete due to packing and unpacking this could throw off the data a little. On one of the sets of data that was necessary to make a box and whisker plot there was a gap in the data so I had to estimate how big that snake would have been to complete the plot. The age of the snake will affect how big the snake is and this might throw off the data.	
Summary Statement Discovering the size of the snake to where and how they live.	
Help Received Paul Collins at SB Museum and Mark Holmgren at UCSB for snake skeletons, dad with charts	