



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Nicholas C. Bauer	Project Number J1902
Project Title Critical Components of an Effective Fly Trap	
Abstract Objectives/Goals The purpose of this project was to determine the variables that contribute to creating an effective fly trap. Methods/Materials Two identical fly traps were built using five gallon buckets, nylon window screen, and a coffee can to hold the bait; this allowed one to be used as a control and the other one to test a new variable. To test new variables the traps were baited in the morning and the flies were counted and the released at the end of the day so as not to damage the population. This process was generally repeated to confirm results. The variable that worked most effectively was then used to determine the next step. Results These experiments showed that the location of the fly trap, the type of bait used and the amount of light entering the trap all contribute to the effectiveness of this design. Conclusions/Discussion The fly trap located on lawn was more effective in catching flies compared to the fly trap located at the playhouse. This may be due to the amount of light or the temperature because flies flourish in warmer temperature. Moist dog feces and dog feces with water covering it were tested to determine if a solid surface for fly landing might be important for this trap design. Moist dog feces was a more efficient bait. When comparing moist dog feces, salmon scraps and Humboldt squid as fly bait, squid was the most effective bait. Light inside the trap was shown to be very important and light from the top of the trap or from the sides of the trap were equally effective. However the total amount of light was important based upon experiments that minimized the light on one trap by covering half of the top and leaving the sides covered. Many other components could be significant in the development of a fly trap such as the length of the cone, or if the cone really matters; the direction of the light, whether it#s from the top or side; and the width of the hole at the bottom. The freshness of the bait could also contribute to its attractiveness. Flies also have a need for protein and sugar. A moist sugary substance with lots of protein could attract flies better. The traps height off the ground may influence the trap as well as the distance between the bait and trap for the closer it is the most likely they will be to fly into the trap but the further away the most likely	
Summary Statement To determine the variables that contributes to creating an effective fly trap	
Help Received I would like to acknowledge my Dad, for helping me with the construction of my original fly traps, many helpful tips; my dog, for providing me with fresh dog feces; and my Mom, for her constant motivation and encouragement to get rid of those flies!	