



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2018 PROJECT SUMMARY

<b>Name(s)</b> <b>Dami Olatunji</b>	<b>Project Number</b>  38134
<b>Project Title</b> <b>Biting Back: Affordable Mosquito Control</b>	
<b>Abstract</b> <b>Objectives/Goals</b> My research and experiment was based on creating an affordable way to mitigate the carriers of many waterborne diseases - mosquitoes. I used materials available to the impoverished civilians of third world countries. The test that I carried out at a research entomology lab was a solution to the problem posed; it involved testing traps of different colors and sizes to lure harmful female mosquitoes. <b>Methods/Materials</b> Once in the trap, I employed homemade flypaper to immobilize the mosquitoes and prevent them from laying eggs. In order to set up this experiment I built nine different prototypes of traps in three varying in color and size to see which lured in the most mosquitoes. I then took the data I received from that experiment and applied it to my phase two prototype - a red colored medium sized trap. I set up my new red only trap with the flypaper along with a control - a medium red shell, and ran the test. <b>Results</b> Student t test results showed that there was a significant difference between the amount of mosquitoes caught by the treated trap than by the shell resulting in a p value of 0.0209. The red treated trap caught 42.4%, while the shell only caught 6.06% of the mosquitoes flying in its enclosure. <b>Conclusions/Discussion</b> The data shows that my red medium sized trap, using homemade flypaper, worked and caught mosquitoes at an efficient rate of 1 mosquito every 4 minutes and 30 seconds.	
<b>Summary Statement</b> My project dealt with creating an environmentally friendly and affordable solution, out of reusable materials, to control the number of mosquitoes in third world countries.	
<b>Help Received</b> I worked at an entomology lab called Sierra Research Laboratories, under the supervision of Dr. Bill Donahue and his team. I was sponsored by my biology teacher Victoria Acquistapace. My research paper was edited by my english teacher Rick Graham.	