



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

Name(s) Julia Melgoza	Project Number J2208
Project Title Water Temperature and Mosquito Pupae	
<p style="text-align: center;">Abstract</p> <p>Objectives The objective of this study is to determine how fast mosquito pupae will emerge as adult mosquitoes in different water temperatures.</p> <p>Methods Three mosquito breeding jars were filled with tap water. Ten mosquito pupae were placed in each mosquito breeding jar and were kept at different water temperatures for 7 days. The container with warm water was kept at 27 degrees Celsius with a heating pad. The container with room temperature water was kept at 20 degrees Celsius on the kitchen counter. The last container with cold water was kept at 10 degrees Celsius in the refrigerator. The jars were checked daily or hourly for the emergence of adult mosquitoes.</p> <p>Results All ten adult mosquitoes emerged out of the warm water in 2 days. All ten mosquitoes emerged out of the room temperature water in 5 days. No adult mosquitoes emerged out of the cold water after 7 days.</p> <p>Conclusions Mosquito pupae were kept in warm, room temperature, and cold water for 7 days. It only took 2 days for adult mosquitoes to emerge in warm water. It is concluded that mosquito pupae emerge into the adult stage faster with increased water temperature.</p>	
Summary Statement I placed mosquito pupae in three different water temperatures and showed that the pupae in warm water emerged faster into the adult stage.	
Help Received I got help in understanding the mosquito life cycle from Dr. Steven Su and Alfonso Melgoza from the West Valley Mosquito and Vector Control District. They let me use mosquito breeding jars and mosquito pupae for the experiment done at home.	