Further elucidation of the Mosquito species composition in Rio Bosque Wetlands Park

Rachel Munoz, Luis Amezcua, Celinda Crews, Douglas Watts

The University of Texas at El Paso, 500 W. University Ave., El Paso, TX 79968

On Earth, there are 3,500 known species of mosquitoes, it is documented that 87 different species are present in Texas. Rapid development and a broad tolerance curve has not only made mosquitoes abundant, but has also made them the most lethal organism on Earth. This is due to their high vector competency for blood-borne diseases such as Malaria, Dengue, Chikungunya, Zika, and West Nile, all of which have caused over one million deaths per year, with West Nile being especially prominent in the El Paso area. Certain diseases pertain to specific mosquito species, which is why monitoring the mosquito population is crucial in preventing outbreaks. The objective of this study is to expand on the known distribution pattern of mosquito species at the Rio Bosque Wetlands Park.

Additionally, an investigation of male to female ratio to water proximity was conducted. To obtain the data, a gravid trap with two gallons of clean water were placed at three different locations. Each location was chosen based its amount of vegetation and its proximity to water. Out of three sites, the one completely surrounded by vegetation and with no bodies of water near it, had the highest and most diverse number of individuals. Mosquitos appear to move toward stagnant water surrounded by large amounts of vegetation, particularly females who are blood fed, a combination that may increase the risk of exposure to different blood-borne diseases.