Title: Mosquito Control in Marion County

Abstract: This project was initiated in order to bring awareness to my students of the impending dangers of contracting a mosquito-borne disease. Through researching different types of mosquito species, students compared different habitats of each represented species given to them and learned their unique characteristics. This information was then presented to other groups of students, faculty and neighboring communities.

Methods:

1. Discussed the basic components of mosquito control based on Integrated Pest Management principles by watching the Video: Integrated Pest Management for Mosquito Control: The Basics released by the University of Florida
2. Writing a research report on a chosen species of mosquito that may be found in Florida to include their breeding habits, the type of location that is favored by that species, their preferred food, and ways to control them.
3. They presented their report to their class and had a chance to discuss the differences between mosquito species and the type of disease they may carry.
4. Field work: the students used the campus of Trinity Catholic High School to collect samples from various areas and identified the conditions within these areas which favored their specific characteristics.
5. Discussion of problem areas in Ocala by contacting the Marion County Health Dept. to find out how the County responded to these problematic areas.
6. Students collected life specimens and were able to observe their breeding habits.

Modifications:

We were only able to concentrate our collection and observation within the school campus including the football and baseball field and the surrounding woods around the school. I would like to be able to go visit other areas, such as parks, around Ocala and compare the mosquito populations.
**Powerpoint:**

The students gathered their information and made a powerpoint to show their methods, reporting what they found, their collecting techniques, and how they bred the mosquitos that were captured alive.

**Objectives:**

We were able to accomplish our objectives by having the students demonstrate skills in using biological instrumentation and scientific techniques. Through their reporting and collecting they were able to take a scientific problem given and read and interpret research papers. They also collected data and stated possible conclusions and identified different patterns of behavior with their specific species. They were asked to apply the knowledge to environmental and social issues of today.

**Studen Population**

My AP Biology class of 13 were the students that worked on this project. They then went on to spread their findings with four other Honors Biology classes. Total student population that benefitted from this program was approximately 100 students.

**Community Service:**

The AP Biology students presented their information with their powerpoint and discussion questions to the school faculty and staff. We extended our reach to two other gated communities in the vicinity of our school were mostly retired people resided. The students, after their presentation, offered their services to the seniors in attendance from these communities to go around their properties and identify some possible problematic areas where mosquitos are known to breed.

For next year, I am planning to include in our curriculum for the Honors Biology classes a one week study of mosquito-borne diseases by adding other activities dealing with impending dangers of exposing ourselves to mosquitos.

Since attending the Summer Institute, I myself have become more aware of my own surroundings. I have taken some steps already to reduce the mosquito population around my home in order to protect my family and pets. I find myself constantly looking for problem areas that may attract mosquitos to breed.