Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mosquito Sampling Activity

November 2010

**Question:** Where are some possible mosquito-breeding areas on my property and what population of these insects am I dealing with?

**Research:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Hypothesis:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Experimental Design:**

*Materials:* Petri dish, white paper, data tables, measuring cup.

*Procedure:*

1. Apply bug spray.
2. Identify areas on your property or Cedar School’s property (with permission from Mr. Erdosy) where mosquitoes may breed.
3. Identify populations of mosquito larvae in these areas.
4. Sample the population three times to get an average number of larvae in each sample. Be sure to take the same size water sample each time.
   1. Remove a small volume of water and pour it into the Petri dish.
   2. Place the Petri dish on a white piece of paper to aid in identifying larvae.
   3. Count the larvae in your sample.
   4. Return the larvae and water sample to the original habitat.
   5. Repeat twice while filling in the data table.
5. Estimate or calculate the volume of water that your populations inhabit.
6. Calculate Population Density for each of the areas you are sampling.
7. Complete a sweep of your property for any more mosquito breeding areas.
8. Eradicate each population and destroy standing-water habitats.

**Data and Observations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Breeding Site | Location and Description | Sample 1: Number of Larvae | Sample 2:  Number of Larvae | Sample 3: Number of Larvae |
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |

**Analysis and Conclusion:**

|  |  |  |  |
| --- | --- | --- | --- |
| *Average Number of Larvae in a sample from each Site:* | *Volume of water in each sample (ml)* | *Estimate of volume of water in each breeding site (ml)* | *Estimate of population size of larvae in each breeding site.* |
| 1: |  |  |  |
| 2: |  |  |  |
| 3: |  |  |  |