

Results of the First Full Year of Surveillance for Richmond County, GA - Oscar Flite

- A. Started in Feb 2013
- B. Program goals
 - 1. Develop a useful surveillance program for the county
 - a) Work in progress
 - b) Electronic data sharing
 - 2. Develop a cadre of trained scientists
 - 3. Develop an understanding of mosquito ecology in the county
 - 4. Develop novel effective solutions to mosquito control
- C. Surveillance
 - 1. 7 northern sites
 - 2. 7 southern sites
 - 3. One site in constructed wetland
 - a) 360 acres
 - b) Used for water treatment
 - 4. Sample alternate weeks
 - 5. Sample constructed wetland site every week
 - 6. Traps
 - a) CDC light traps
 - b) Gravid traps
 - 7. Results
 - a) 68754 mosquitoes captured
 - b) About 50/50 distribution between the sites outside the swamp and inside the swamp
 - c) Light traps
 - (1) 9 genera
 - (2) 25 species
 - d) Gravid traps
 - (1) 8 genera
 - (2) ?? Species
 - e) Most caught (90%)
 - (1) *Culex salinarius*
 - (2) *Anopheles crucians* complex
 - f) No albopictus found at the constructed wetland site
- D. Some interesting data
 - 1. Species richness
 - a) Varied from site to site
 - b) Lots were wetland species
 - c) Periodicity
 - (1) Varied over time
 - (2) Varied by species
 - (3) Varied somewhat by site
 - (4) Seasonal and event driven
 - 2. Species diversity
 - a) Northern route had fewer numbers of species
 - b) Swamp had large numbers
 - 3. Mosquito flight range
 - a) How far will mosquitoes fly from constructed wetland
 - b) Does the constructed wetland contribute to the mosquito problem
 - c) What role does the wind speed and direction play
- E. WNV - hope to eventually do some testing

F. The future

1. Keep doing surveillance
2. Look for trends
 - a) Competitive exclusion
 - b) Periodicity
 - c) Wind effect
3. GIS work
 - a) Flight distance
 - b) Stormwater data
 - (1) South - open ditches
 - (2) North - closed system, usually treated
 - c) Mosquito complaint data
 - d) Mosquito tracking
 - e) Virus detection
 - f) Biological control work
 - g) Stormwater program
 - (1) Rain gauges
 - (2) Creek water levels
 - (3) Hoping to trap these areas
 - (4) Recommendations on various stormwater projects

G. Support from the Knox Foundation