

MOSQUITO CONTROL SERVICES, LLC

GLYNN COUNTY UPDATE
Transitioning from an In-House Program

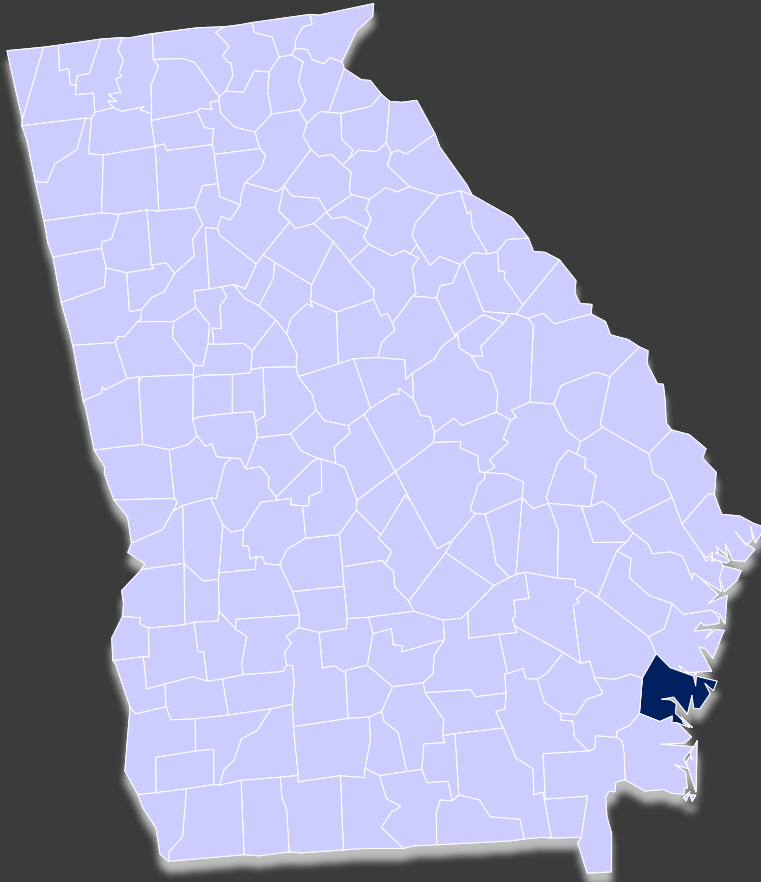


- Established in 1985 as Mosquito Control Inc.
- Today, we service 6 Parishes & 3 Counties
- Experienced Team of Entomologists, Biologists & Field Personnel
- Operating 60+ Spray Trucks & 5 Twin-Engine Aircraft





GLYNN COUNTY



- Established in 1777
- 585 square miles
- 85,000 population

- **Areas**
 - Brunswick
 - St Simons Island
 - Sea Island
 - Jekyll Island

- **Economy**
 - Tourism
 - FLETC
 - Paper Industry



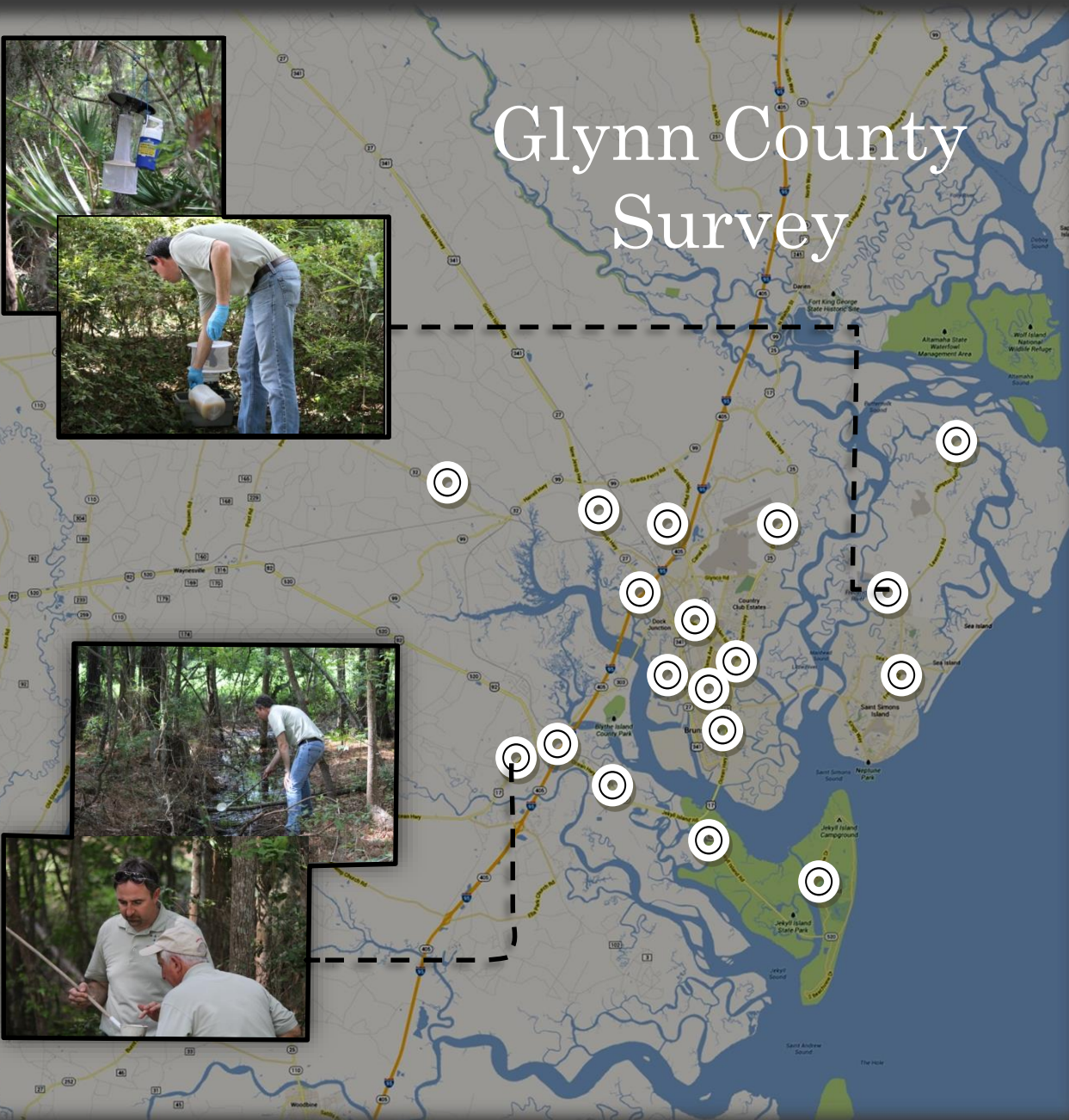


Glynn County Mosquito Control

- Early 70's – Public Works Treatments
- 1978 Mosquito Control Program
 - John Carter ~ '78-'89
 - Olan Chancy ~'89-'02
- '02 to '12
 - Transitional Period
- 2013 County Decides to Outsource



Glynn County Survey



Culex erraticus

Aedes stimulans

Culex salinarius

Psorophora ferox

Culex quinquefasciatus

Psorophora columbiae

Anopheles quadrimaculatus

Culex nigripalpus

Ochlerotatus atlanticus

Coquilletidia perturbans

Ochlerotatus infirmatus

Psorophora howardii

Aedes vexans

Ochlerotatus taeniorhynchus

Aedes albopictus

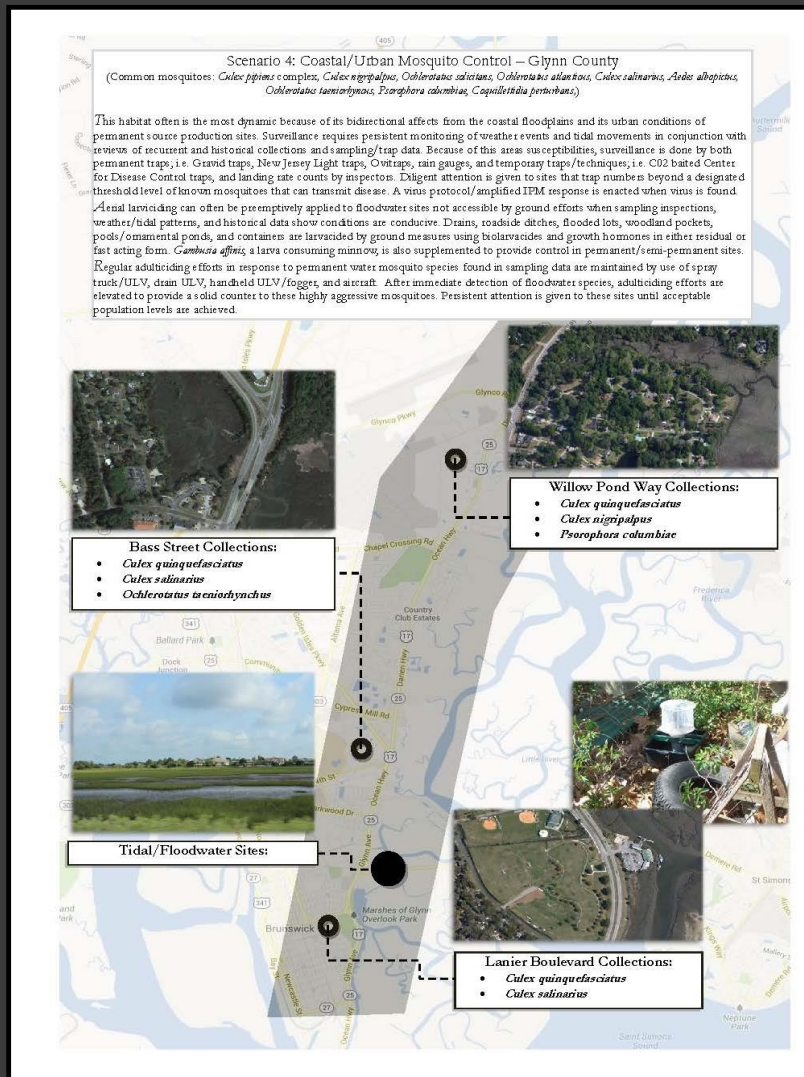
Anopheles crucians

Ochlerotatus sollicitans

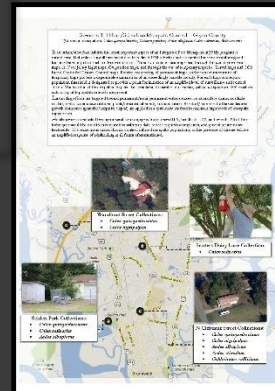
Psorophora ciliata



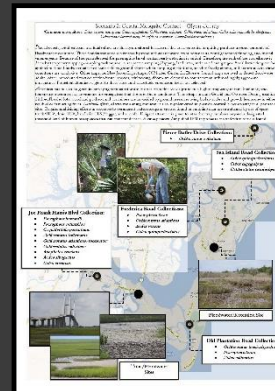
Identified Habitats & Required Control Methods



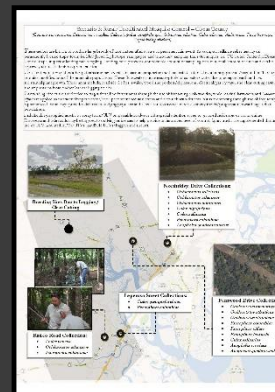
Scenario 4: Coastal/Urban Mosquito Control



Scenario 1:
Urban/Suburban
Mosquito Control



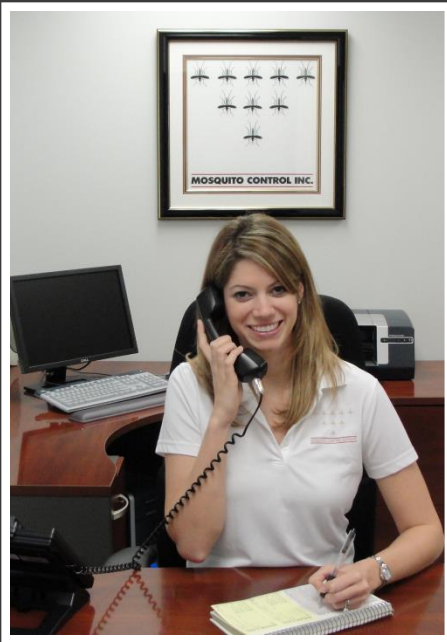
Scenario 2:
Coastal
Mosquito Control



Scenario 3:
Rural/Uncultivated
Mosquito Control

MOBILIZATION PLAN

- Purchase New Vehicles and Equipment
- Trucks & ULV Sprayers, ATV, Traps
- Locate, Establish & Outfit Office
- Hire Local Staff
- Aerial Base
- Chemical Containment & Mixing
- Training & Licensing



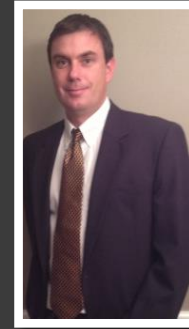


- Establish Stand-Alone Operation in Glynn County
- Tailor Facility to the specific needs of the Program
- House Equipment, Lab, Shop
- Define Procedure and Train Employees

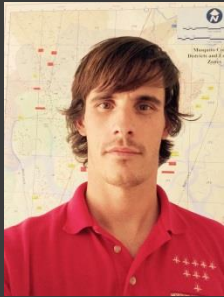




Steven Pavlovich, General Manager – Entomologist –



Samuel Stines, Chief Biologist



Travis Dorsey, Program Manager- Entomologist

Field Technicians

Wallace Head



Don Hubbard



Leon Burns



Glenn Jeter



MCS PROGRAM PHASES

Surveillance



Encephalitis Surveillance



Larviciding



Ground Spraying



Aerial Application



Public Education

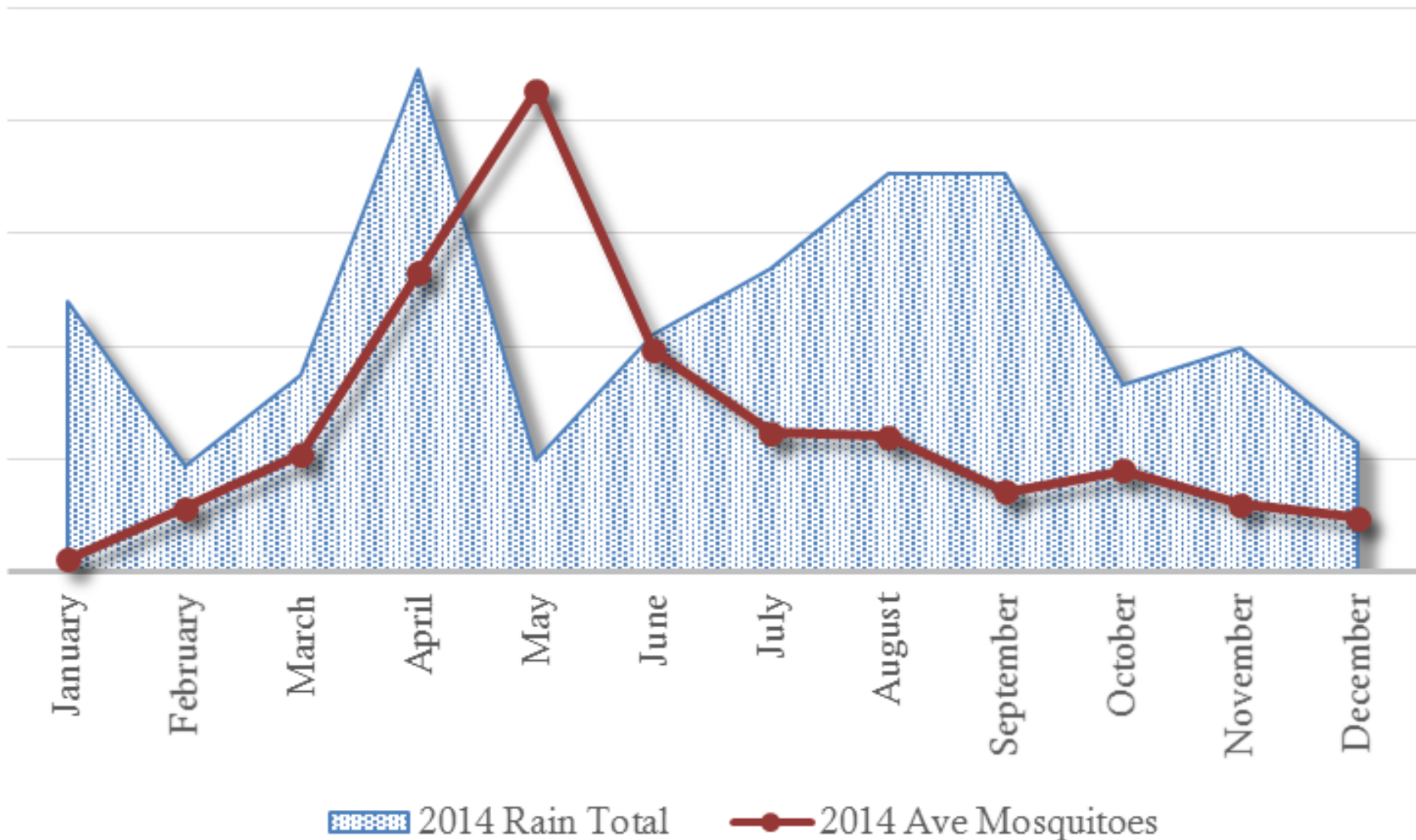


INSPECTION AND SURVEILLANCE

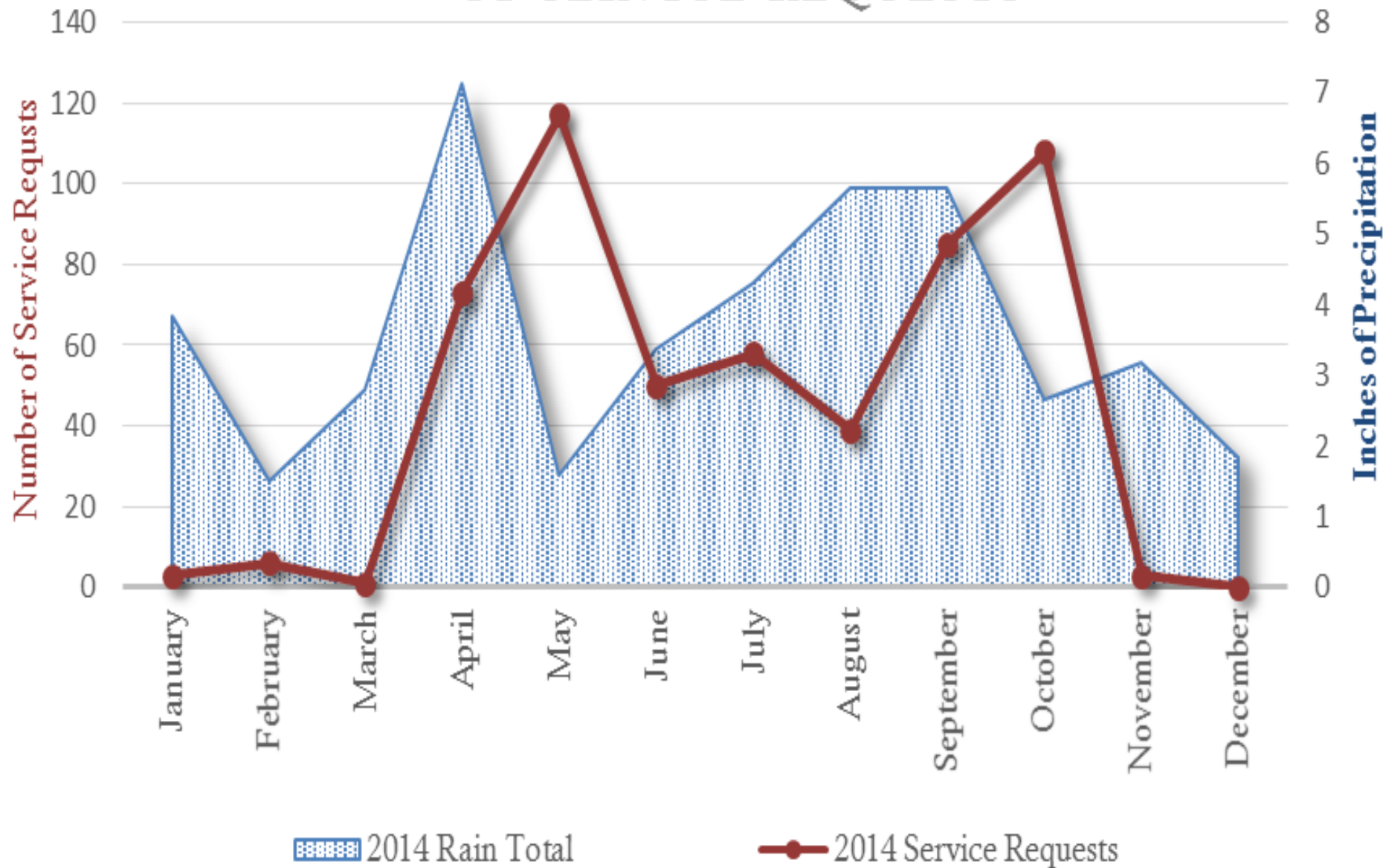
- GPS Mapping of Breeding Sites
- Rain Gauge Stations
- New Jersey Light Traps
- Gravid Traps/ CDC Traps
- Ovitrap Locations
- Landing Rate Sites



2014 AVERAGE PRECIPITATION & AVERAGE MOSQUITOES PER TRAP



2014 AVERAGE PRECIPITATION & NUMBER OF SERVICE REQUESTS



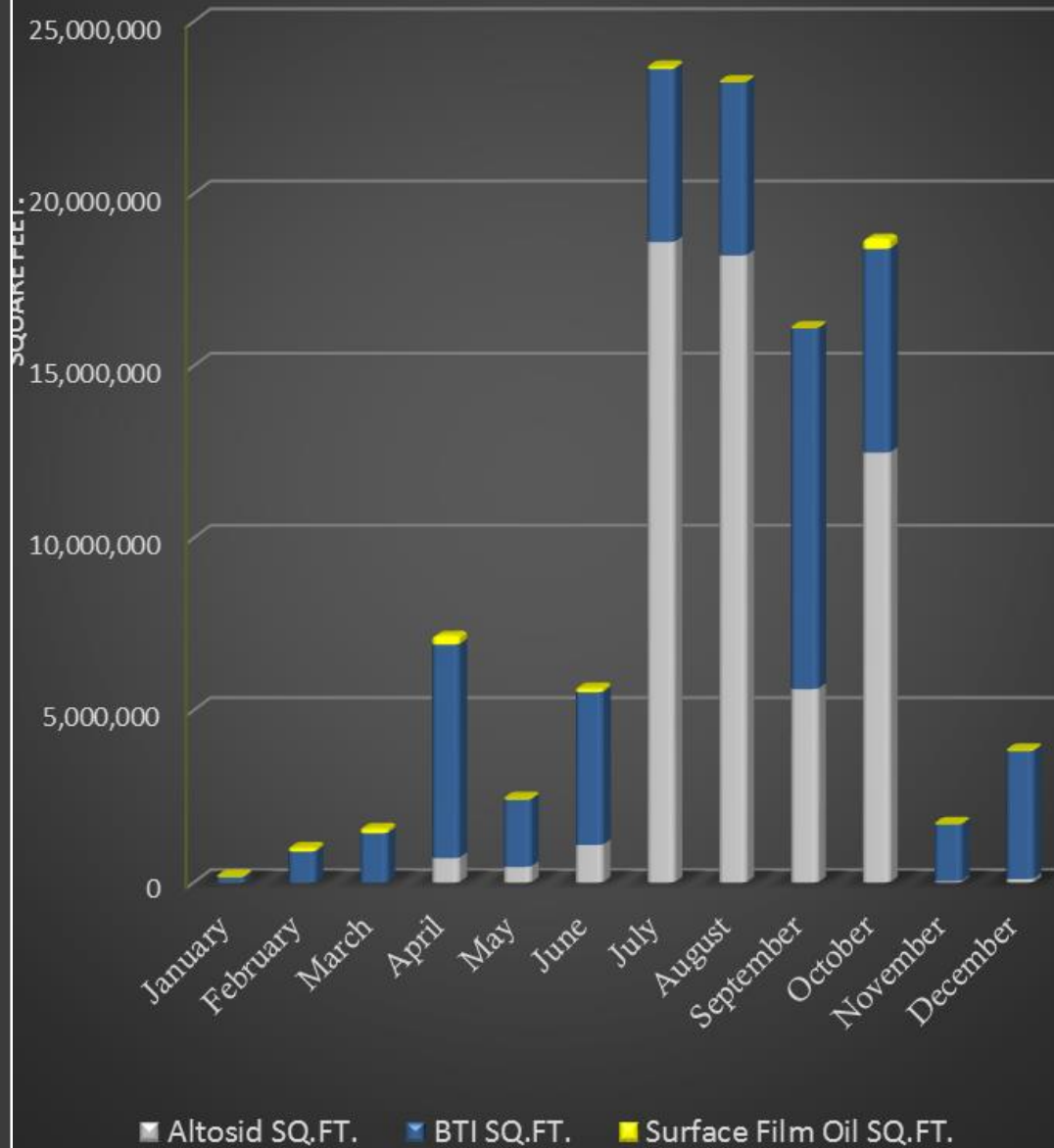
LARVICIDING



- Mosquito Fish and Bio-Chemical Controls
- Catch Basin Treatments
- Ground Application with Backpacks, ATVs & Trucks
- Aerial Application via Thrush Aircraft



2014 Larvaciding: Total Square Feet per Product



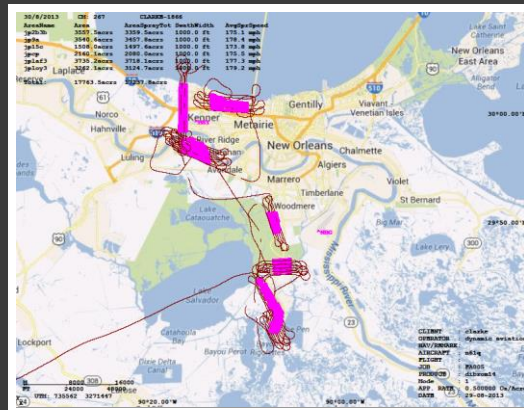
GROUND ADULTICIDING

- Spray Trucks Equipped with Flow Control and Truck Tracking
- ATVs Equipped w/ ULV Sprayer and Larvacide Application tank
- Handheld ULVs & Thermo-foggers

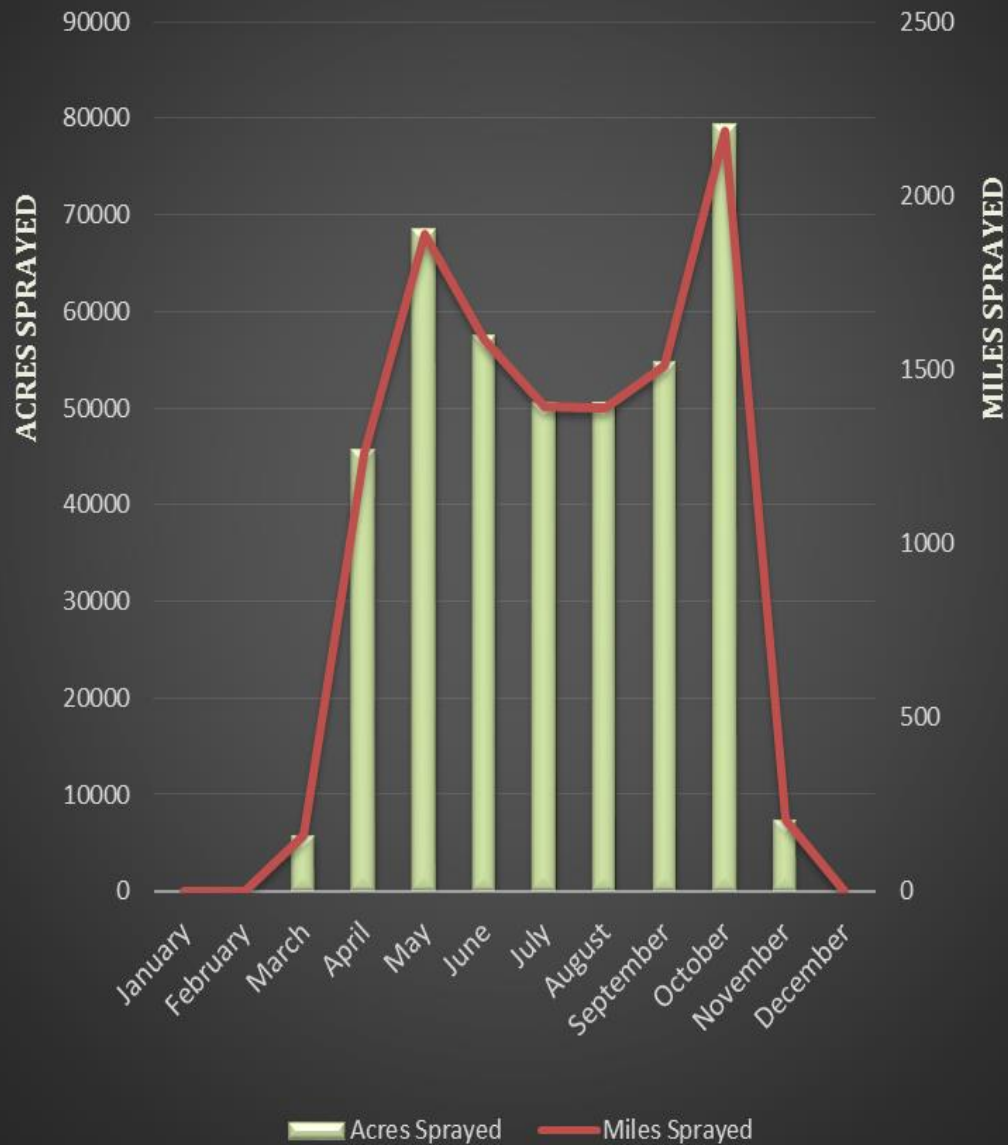


AERIAL ADULTICIDING

- Partnered with Dynamic Aviation
- Twin- Engine King Air Aircraft
- 2 Pilots; Night Vision Goggles
- Exempt from Dump Restriction
- Flight Master/ Ames System



2014 Adulticiding: Acres Sprayed & Miles Sprayed





ENCEPHALITIS SURVEILLANCE

- Monitoring Disease Vector Populations Year Round
- Our Laboratory is Backup to University/ State Labs
- Surveillance & Response Protocol



PUBLIC EDUCATION PROGRAM

INSPECTION AND MAPPING

The solution to mosquito troubles begins by defining the problem.

Mosquito Control Services, LLC, locates, maps, and categorizes important mosquito breeding sites, gathers rainfall information, monitors adult mosquito activity and operates a 24-hour toll-free hotline for public mosquito reports.

Data are collected year-round and are computer-plotted to direct equipment and personnel for precise site-specific control.

If the location is suitable, Mosquito Control Services, LLC will transport mosquito fish to the breeding site. The fish then feed on mosquito larvae, providing a natural biological solution to the problem. These mosquito fish are provided to homeowners free of charge for use in private ponds, fountains and ornamental pools.

24-HOUR TOLL-FREE HOTLINE
504-366-0084

CONTROL OF LARVAL INSECTS

After the immature mosquitoes (larvae) are located in their water habitats, crews work to suppress their ability to become adults.

Bio-chemical sprays containing bacteria or insect growth-regulating hormones are used to address the larvae.

SPRAY FREQUENCY AND LOCATION

Areas are prioritized due to need and sprayed accordingly with the addition of some general maintenance spraying from time to time.

Frequency of the truck spray operation varies depending on mosquito population as determined by data.

Aerial applications are used when site health or floodwater mosquito population reaches critical levels as determined by surveillance data, or to supplement ground control efforts.

Infection, surveillance, abatement, entomology monitoring, testing and site inspections generally occur during the daytime hours.

Spraying via trucks and aircraft begin at dusk and continues for about 3-3 hours.


ECO-FRIENDLY TECHNOLOGY

While effective, chemical insecticides are not always the best solution. That's why the contractor opts for nature's technology whenever possible.

Many of the sprays contain bacteria or insect growth-regulating hormones that have little or no effect on the environment and non-targeted organisms.

Routine rotation of the control methods used helps reduce the possibility of the target insect population building a tolerance to the control methods and lessens the impact on the environment.

Regardless of the control product used, biologists routinely perform laboratory and field tests to evaluate effectiveness and potential for the product to contribute to resistance by the insect.



- Residential Inspections
- Informative Pamphlets
- PowerPoint Presentations
- Radio Spots





OTHER EFFORTS

- Special Event Barrier Treatments
 - Truck & Backpack Applications
- Encephalitis and Efficacy Testing
 - Bottle Bio-Assays
 - Field Cage Tests
 - Larvacide Ditch Tests
- Droplet Testing





QUESTIONS?