## THE TOOLS OF SURVEILLANCE

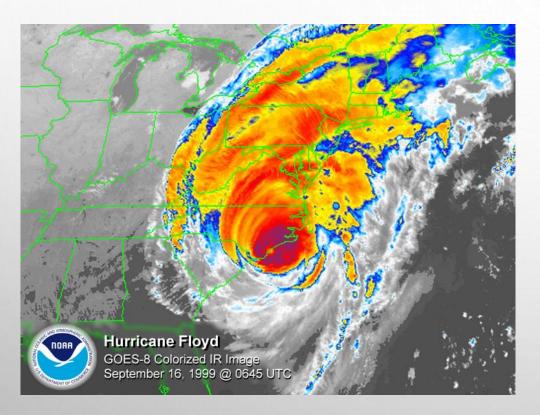
SANDRA L. FISHER-GRAINGER
HERNANDO COUNTY MOSQUITO CONTROL







### AND THEN







#### WHAT ARE YOU TARGETING?

- **\*** EGGS
  - **❖** RESISTANCE TESTING
  - **❖** ABUNDANCE



- **❖** RESISTANCE TESTING
- **❖** ABUNDANCE
- **❖** SITE VISITS/BREEDING SITE INSPECTIONS



- **❖ DISEASE SURVEILLANCE**
- **❖** ABUNDANCE
- **❖ NUISANCE**







#### EGGS-CONSIDER THE SPECIES



Egg rafts



Ovicups





Trap'n'Kill



- (A) Standard (500 mL) lethal ovitrap (LO);
- (B) National Environmental Agency Singapore sticky ovitrap (SO)
- (C) MosquiTRAP sticky ovitrap (SO)
- (D) Biogents Gravid Aedes Trap (GAT)
- (E) Centers for Disease Control (CDC) Autocidal Gravid Ovitrap (AGO).



## LARVAL SURVEILLANCE

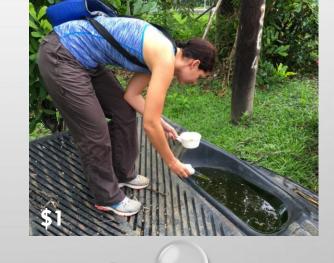


















#### **ADULT SURVEILLANCE**

- TRAP SELECTION DEPENDS ON SPECIES OR "STAGE" YOU ARE TARGETING-ARE THEY DAY BITING, NIGHT BITING, TRAP SHY, BREEDING HABITAT, GRAVID, RESTING, ETC
  - THIS WILL ALSO DETERMINE LURES

#### **LURES**









Hexanoic Acid Lactic Acid Sodium Bicarbonate Sodium Polyacrylate

#### ADULT SURVEILLANCE-CONTAINER BREEDERS

- OMNI-DIRECTIONAL FAY-PRINCE
  - WITH OR WITHOUT LURES, CO<sup>2</sup>

- BG SENTINEL I & II
  - WITH OR WITHOUT LURES, CO<sup>2</sup>







#### ADULT SURVEILLANCE- "STAGES"

RESTING TRAP
TARGETS FEMALES THAT HAVE TAKEN A BLOOD MEAL
AND ARE RESTING WHILE PRODUCING EGGS-MANY
SPP





GRAVID TRAP
TARGETS FEMALES SEEKING AN OVIPOSITION
LOCATION-WORKS BEST FOR CULEX SPP







**CDC** 





varies

#### ADULT SURVEILLANCE-THE REST





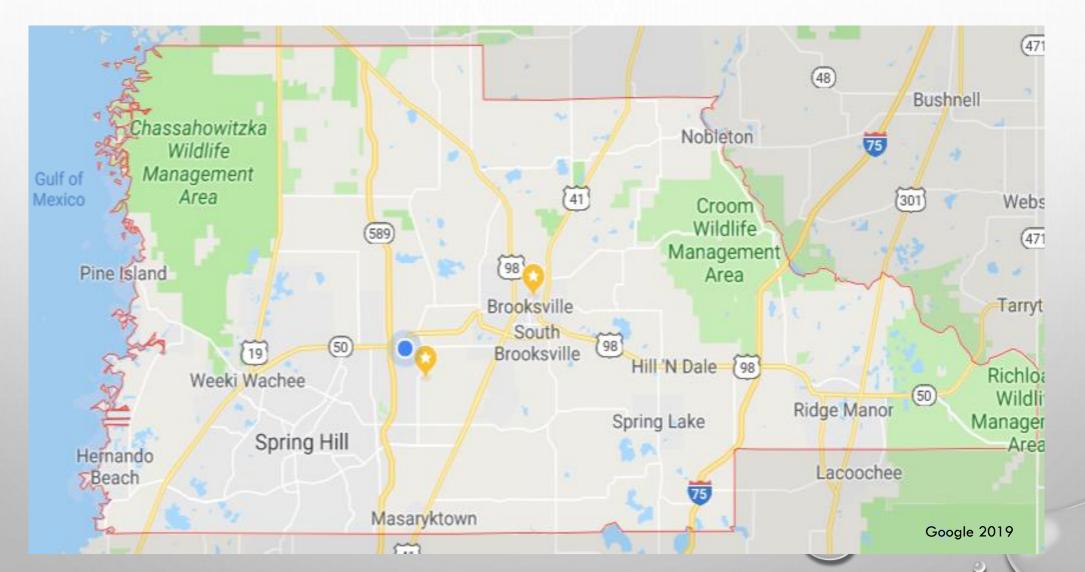
CDC MINIATURE



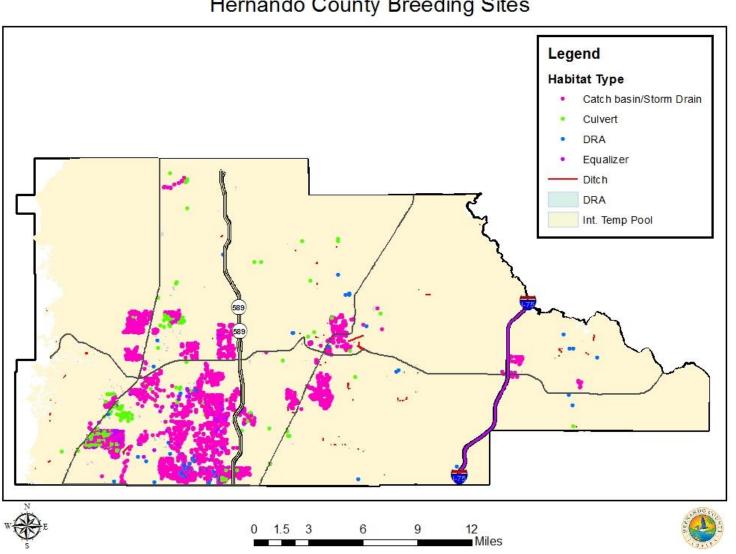




## MAPSIIII

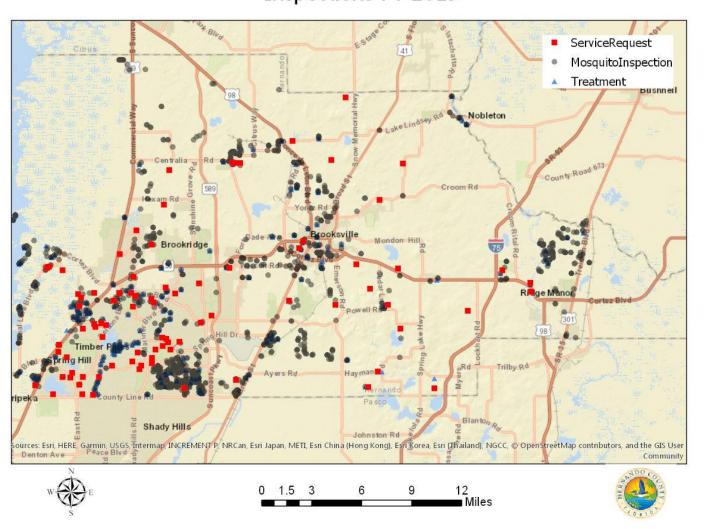


# MAPS-FEATURES Hernando County Breeding Sites



#### MAPS-DATA

Hernando County Service Requests, Treatments and Inspections FY 2019





# Traps and accessory suppliers: BioQuip.com JohnWHock.com Mosquito Control Product Vendors

Sandra Fisher-Grainger

Hernando County Mosquito Control

sfisher-grainger@hernandocounty.us

352-540-6552