



Trapping for Adult Mosquitoes

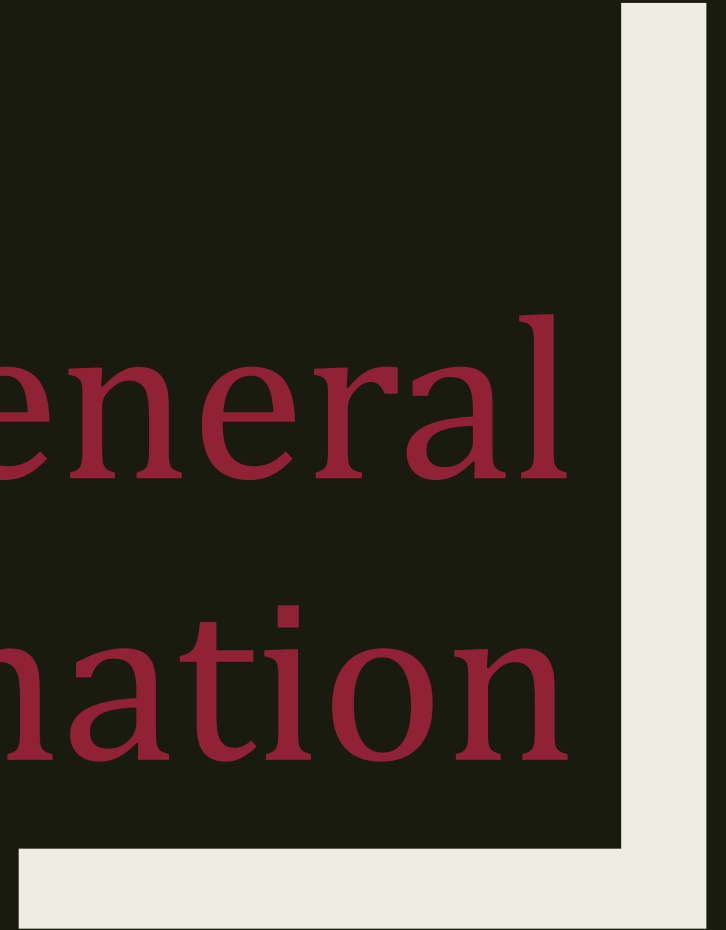
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Overview

- General information
 - What, why, when, where do we trap
- Setting traps
 - Preparation
 - Types of traps
 - Trap set up
- Picking up traps
 - How to take down a trap
 - Trap malfunctions and/or tampering
 - Freezing catch
 - Helpful tips



General Information



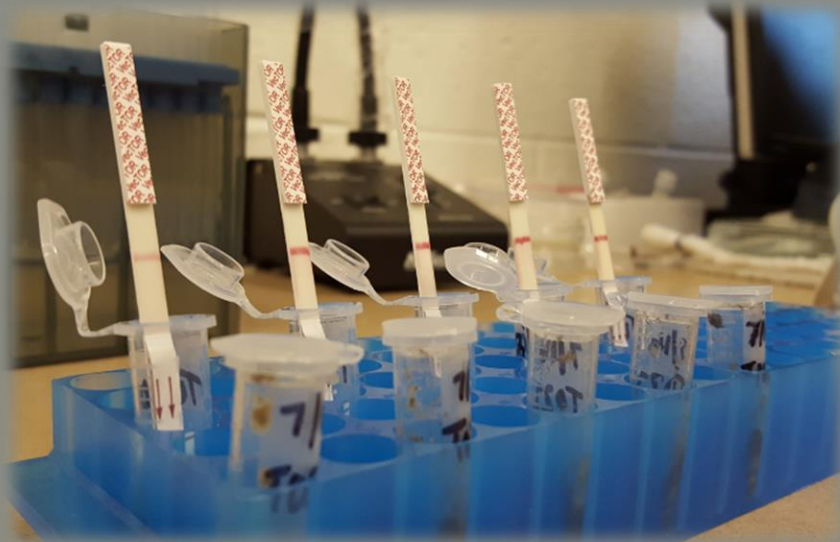
What do we Trap?

- Traps are designed to catch adult female mosquitoes
- You will also catch male mosquitoes, moths, spiders, midges, crane flies, etc.



Why do we Trap?

- Monitor fluctuations of mosquito populations
- Test for disease, primarily WNV and EEE
- Reduce the mosquito population to make life more comfortable for citizens
- Have a better understanding of where to look for larval habitat based off adult catches
- Collect data
- Find new species in the area



Where do we Trap?



- Areas close to mosquito breeding habitat
 - Woods that have woodland pools
 - Near salt marshes
 - Urban areas; near containers with standing water
- At Pump Stations which attract *Culex pipiens* and *Culex restuans*
- Somewhere hidden to avoid interference from the public
- In shaded areas where mosquitoes tend to rest during the day



When do we Trap?

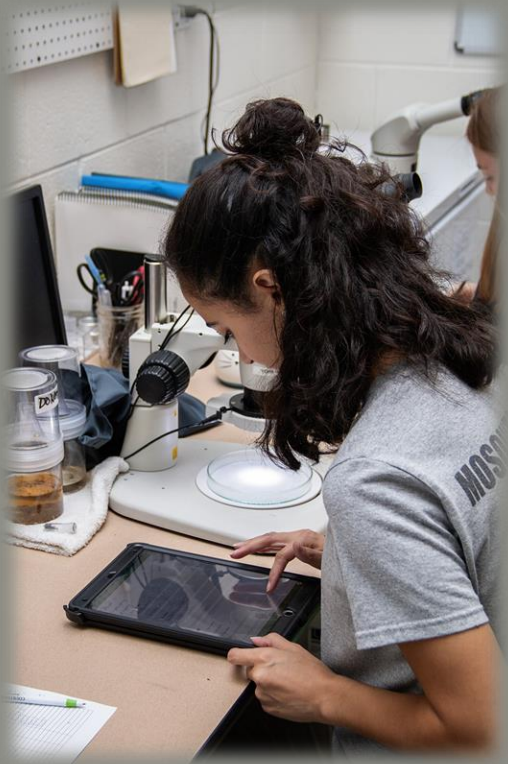


- April until October in our area
 - Can vary based on the weather and mosquito populations
- Time traps are set and picked up vary by municipality
 - Less than 24 hours- Set in the afternoon and pick up the following morning
 - 24 hours- Set the traps in the morning and pick up the following morning
 - Dependent on how long the batteries can last
- If you want to primarily catch *Aedes albopictus*, the trap can be set in the morning and picked up later in the day

Setting Traps

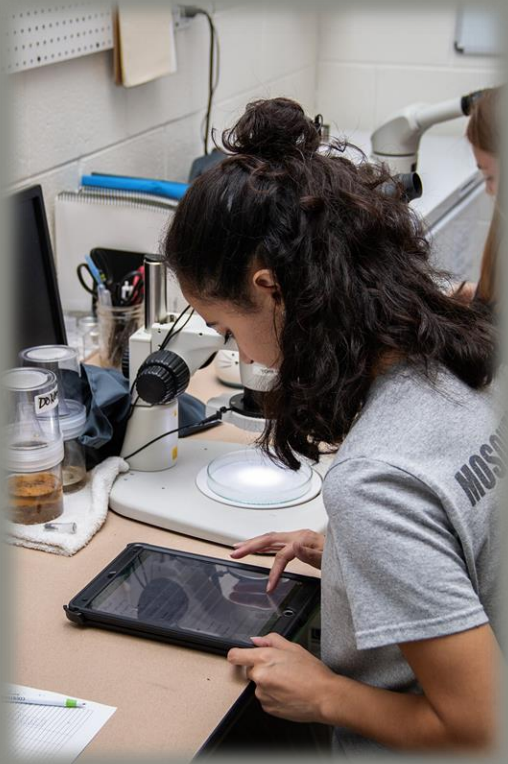
Preparation

- Know where you are supposed to be trapping
- Enter in trapping data
- Write out labels for each trap
 - Date trap was set, location, and type of trap
- Gather your trapping supplies
 - Traps
 - CO₂ in the form of dry ice or in tanks
 - Dry ice blocks need to be made and put into coolers
 - If you are using tanks, make sure you have enough for the route, connections are tight/not leaking CO₂, and that the tank at the site lasts through the night
 - Batteries
 - Baits/lures
 - Extra parts in case you forget something or a trap malfunctions



Preparation cont.

- Set up the trap before you walk into the woods
 - Quicker to fix if there is an issue with it
 - Less time getting bitten by mosquitoes



Types of Traps: CDC

- Battery
 - 6 volt
- Attractants
 - CO2
 - Light
- Air flow
 - Mosquitoes get sucked into the trap chamber by a fan they have to pass through (can cause damage)
- Placement
 - Hang from a tree
- Good for catching
 - Woodland and salt marsh species



CDC Setup Demonstration

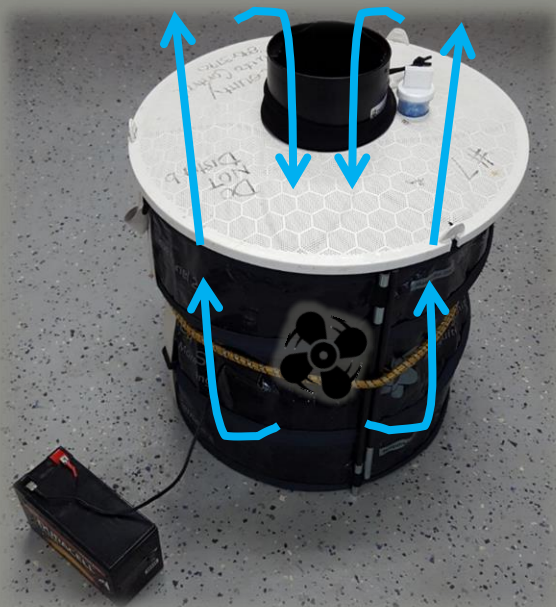


- Put the label in the catch chamber
- Attach the catch chamber to the CDC by placing the elastic above the lip
- Connect the battery
 - **Red to red, black to black**
- Bring supplies to the trap site
- Place the battery facing upright on the ground
- Hang the CDC trap at eye level
- Hang and open the cooler
- When walking away, double check everything is correct

Types of Traps: BG

- Battery
 - 12 volt or two 6 volts
- Attractants
 - CO2
 - BG lure
- Placement
 - On the ground
- Good for catching
 - Container breeding species





Types of Traps: BG

- Air flow
 - Mosquitoes get sucked into the BG baggy by a fan beneath it
 - Air goes back out through the lid of the trap
- Reasons to use a rain guard
 - Rain clogs the pores of the lid which leads to a reduction of air flow
 - Mosquitoes are difficult to identify when they are wet

BG Setup Demonstration



- Put the label in the BG baggy which has the seams on the outside
- Attach the baggy to the cylinder by placing the elastic above the lip, then tighten
- Push the cone netting down
- Open the cooler
- Bring supplies to the trap site
- Place the battery facing upright on the ground
- Connect the battery
 - **Red** to **red**, **black** to **black**
- When walking away, double check everything is correct

Types of Traps: Gravid

- Battery
 - 6 volt
- Attractants
 - Smelly water; grass, chicken manure, yeast, water
 - Pump Station
- Air flow
 - Mosquitoes going towards the water get sucked up into the trap chamber
- Placement
 - On the ground by a Pump Station or other urban habitat with standing water high in organic matter
- Good for catching
 - Gravid female mosquitoes, primarily *Cx. pip/res*



Gravid Setup Demonstration



- Put the label in the trap chamber
- Push down the cylinder until it stops
- Place the trap chamber on top of the cylinder with as little netting over the opening
- Connect the battery
 - **Red to red, black to black**
- Close the trap
- Bring supplies to trap site, place toolbox in the center of the pan, and have the fan free from vegetation
- Empty gallon of gravid water into pan that is level
- When walking away, double check everything is correct

Picking up Traps

How to Take Down a CDC Trap



- Tap the netting to make the mosquitoes go down
- Hold it closed with one hand while tying the string with the other
- Disconnect the battery
- Gather supplies

How to Take Down a BG



- Shake the cylinder to have any mosquitoes close to the top go down
- Keep the baggy by the fan so it helps keep the mosquitoes from flying out
- Put cylinder back upside down
- Disconnect battery
- Gather supplies

How to Take Down a Gravid Trap



- Cinch the drawstring close to the top of the tube
- Make sure the chamber is closed at the bungee and around the top of the container
- Disconnect the battery
- Gather supplies
- Try not to get gravid water on you when you dump it out

Malfunctions and/or Tampering

- Malfunctions examples
 - Battery has a low voltage or died
 - Cooler unopened, tank not turned on, or tank ran out of carbon dioxide
 - Something on the trap itself broke
- Tampering examples
 - Trap was moved
 - Battery disconnected
 - CDC strings cut



Freezing Catch

- When you get back to the office, freeze the mosquitoes to kill them
 - Make sure they are dead before you ID them
 - Mosquitoes in gravid trap chambers tend to take longer to die



Helpful Tips



- Mosquito traps also attract ticks
 - Do a quick tick check before getting back in the truck
 - You can use a lint roller to get ticks off your clothes
- When you pick up a trap, make sure it has a label associated with it
- DO NOT detach a battery connection by pulling on the wire, pull from the spade head
- Put something on top of the gravid pans when driving so they don't fly out of the truck
- Make sure the mosquitoes are not squished in transit or in the freezer



Questions?

