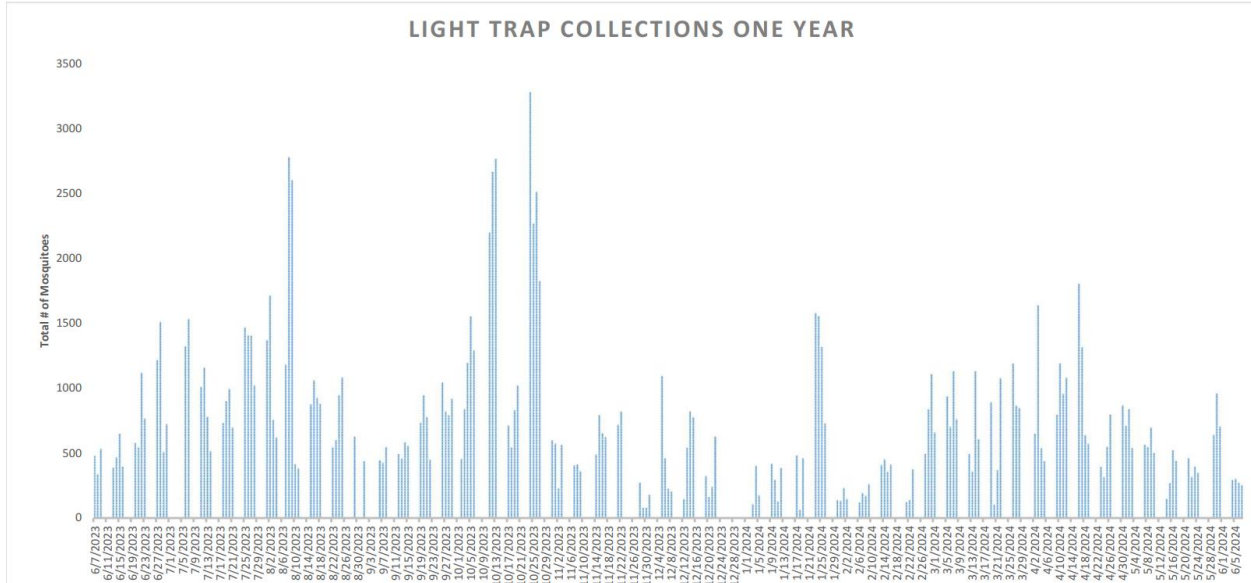


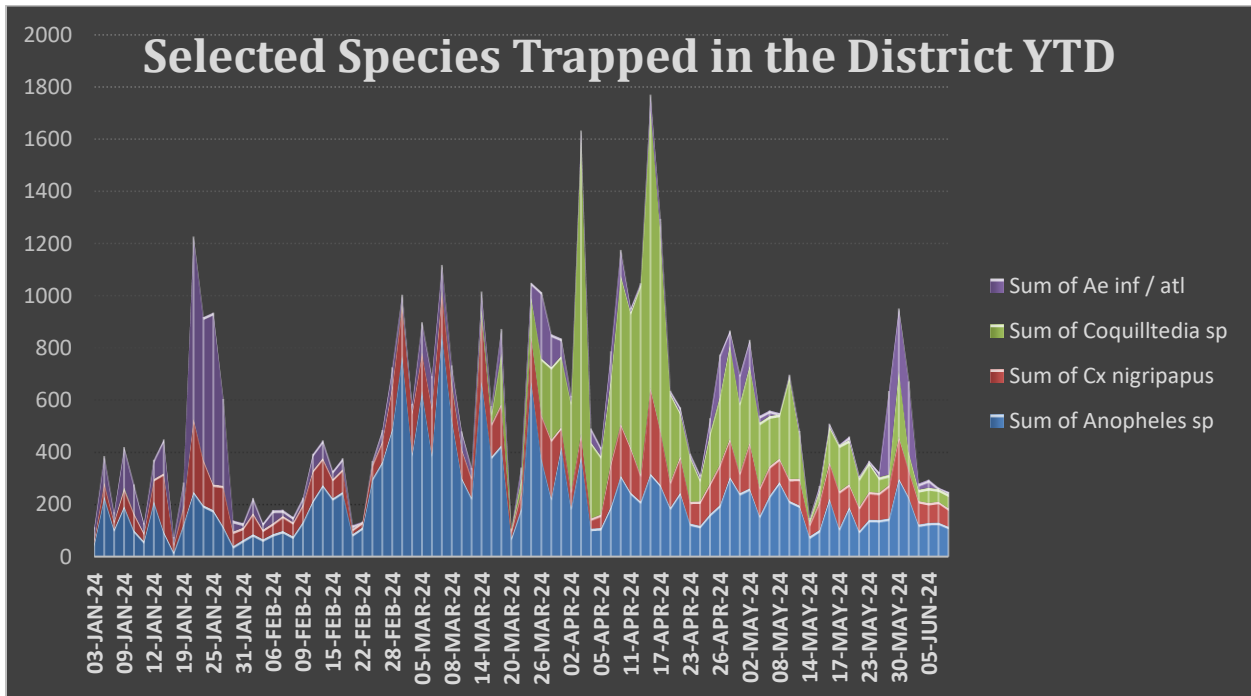


Week of 6/3/2024 Operations Update (23)

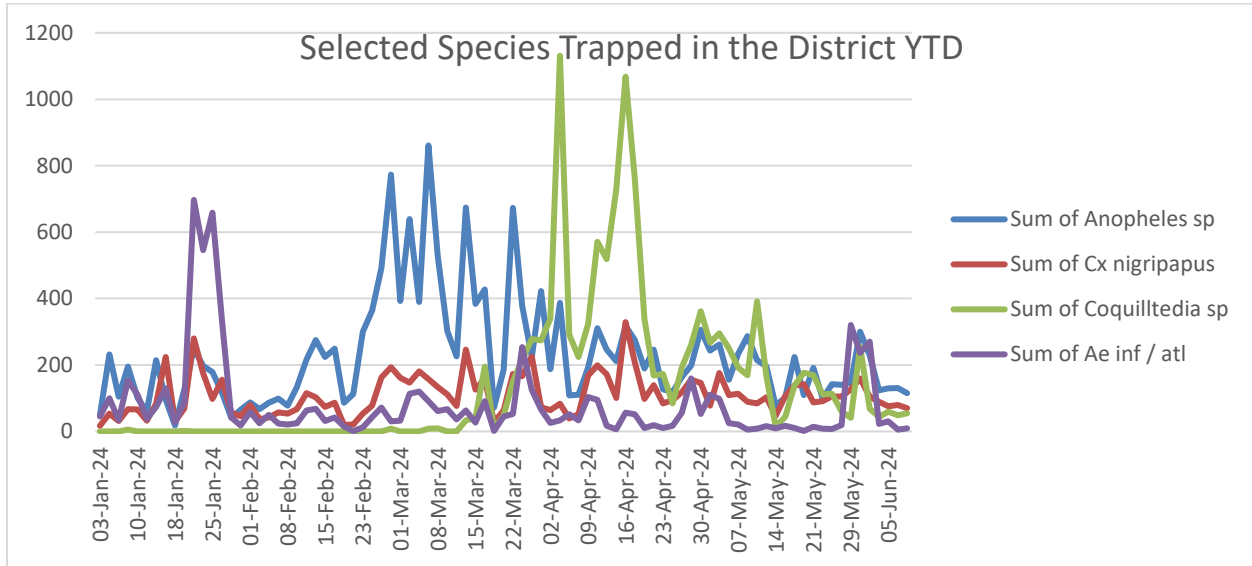
A Local State of Emergency and county-wide burn ban went into effect this week due to wildfire hazard. The presence of a heat dome has created extreme heat and dry conditions. The bar graph below shows the total number of adult mosquitoes from all traps in the District for the past year (TTM).



Limited rainfall has kept the mosquito population low since mid-April. Mosquito activity the past two weeks has been unrelated to rainfall.



Last week we saw an isolated emergence of *Aedes infirmatus* in the south end of Town Center, likely due to the construction of the BJ's store. We also saw an uptick in *Anopheles spp.* last week, which likely resulted from the drying down of breeding habitats forcing the larval population to leave the water as adults. The population of permanent-water species has "flat-lined", while flood-water species have disappeared from the traps almost entirely.



The only mosquito activity registered in the District this week originated from the City of Palm Coast's waste-water treatment plant. This facility produces saltmarsh mosquitoes when it floods treatment ponds allowing the eggs laid when the ponds dry down to emerge in huge swarms. This species of mosquito, *Aedes sollicitans*, is an aggressive biter and can fly up to twenty miles. The District controls this species with pre-application of larvicides by helicopter and other ground operations to known breeding sites in the saltmarsh. This is a very effective strategy when we can monitor rainfall patterns and tides and time the application of pesticides to get ahead of mosquito production in the saltmarsh habitat. However, due to the operations at the City owned facility, this strategy is not feasible in this case.

Additionally truck mounted "ULV" spraying is not the best tool as roads are limited around the waste-water facility, rendering sufficient coverage with pesticides to impact the mosquito population impossible. This is not a new situation. However, development is now adjacent to the waste-water treatment facility and the impacts of mosquito production are apparent to residents nearby.

Possible solutions to prevent the production of mosquitoes at this facility include: injecting pesticides into the finished waste-water product so that as soon as the mosquito eggs hatch in the flooded soil they are eliminated; keeping the ponds wet to prevent egg-laying that occurs in the dry soil between cycles; reducing the flood period to less than three days so mosquitoes cannot complete the lifecycle; and not flooding the settling ponds. District officials have met with waste-water managers to discuss these options, but no action has been taken by the City as of yet.

Completed third round of aerial larviciding pre-treatments in the saltmarsh ahead of predicted rain fall.



6-10 Day Precipitation Outlook



Valid: June 12 - 16, 2024
 Issued: June 6, 2024

