

Hurricanes and Mosquitoes¹

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Why Does Florida Experience Such High Numbers of Mosquitoes After a Hurricane?

Mosquitoes go through four developmental stages during their life: eggs, larvae, pupae, and adults. Dozens of species of mosquitoes reside in Florida, and the different species have differing means of surviving.

In addition to many environmental variables, there are two biological attributes related to mosquito egg-laying that contribute to the numbers of mosquitoes seen and felt during a post-hurricane period. The attributes separate mosquitoes on the basis of the conditions in which they lay their eggs. The two groups are floodwater mosquitoes and standing-water mosquitoes.

Floodwater Mosquitoes

Many people associate mosquitoes strictly with standing water, with the belief that mosquitoes have to have water to lay their eggs. The fact is, mosquito eggs need water to hatch—but some species lay their eggs in moist soil (not standing water) and actually the eggs need to dry out before they can hatch. These mosquitoes are the “floodwater” species.

As far back as one year from the time the floodwater mosquitoes are noticeable, the adult female mosquitoes were flying around, feeding on blood, and laying eggs (one female floodwater mosquito has the potential to lay 200

eggs per batch) in moist areas of pastures, citrus furrows, salt-marsh, and swales. These moist areas eventually dry out, and the mosquito eggs also dry and become encased in the cracks and crevices of the dried mud. Because of their unique biology, the eggs need to dry out before they can hatch into larvae. The eggs survive in the dry soil through the winter and spring, and then with rains from storms or hurricanes, those areas are inundated with water. The water that reaches the eggs provides a cue to hatch.

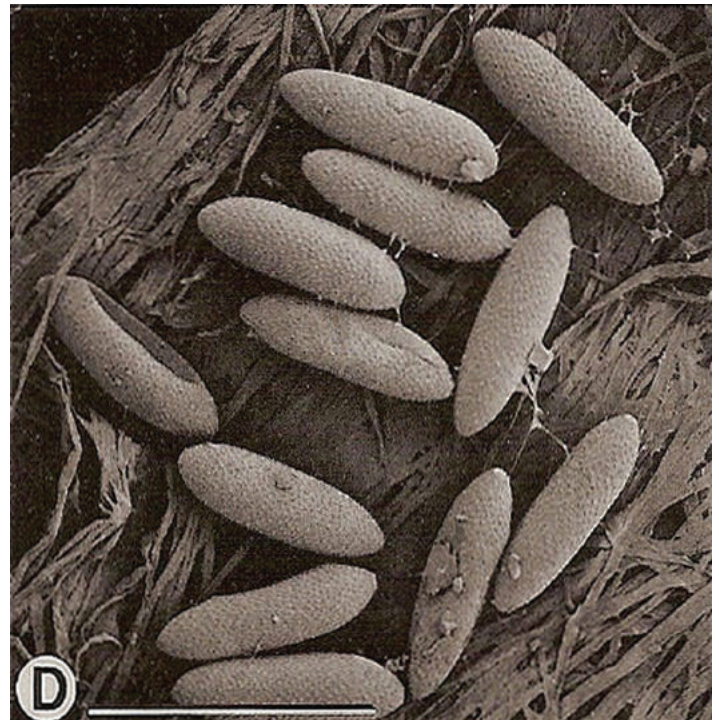


Figure 1. Floodwater mosquito eggs (*Aedes epactius*).
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