

UNIVERSITY OF SOUTH FLORIDA

Defense of Master's Thesis

Automated Identification of Stages in Gonotrophic Cycle of Mosquitoes
Computer Vision Techniques

by

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In this paper, we design Computer Vision techniques to determine stages in the Gonotrophic cycle of mosquitoes. The dataset for our problem came from 125 adult female mosquitoes - belonging to one of three species: *Aedes aegypti*, *Culex quinquefasciatus*, and *Anopheles stephensi*. The mosquitoes were raised in a lab and passed through all four Gonotrophic stages (Unengorged, Engorged, Semi-gravid, and Gravid). At each stage, their images were captured on a plain background via smartphones,