THE BEHAVIORAL RESPONSES TO AND CHARACTERIZATION OF CUTICULAR PHEROMONES IN THE HOUSE CRICKET, *ACHETA DOMESTICUS*

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Crickets are well known for their acoustic signaling. Research has demonstrated the importance of cricket calling and courtship songs and has found that they play an important role in intraspecific communication, especially sexual selection\(^1\). Less well understood, is the role of cuticular pheromones in these same interactions, and not until recently have these cuticular pheromones been characterized\(^2\). The effect of these pheromones seems to differ from species to species, and, thus far none of the studies performed has examined the behavioral response to or characterized the cuticular pheromones of the house cricket (*Acheta domesticus*).

Studies have shown that various species of crickets are able to differentiate between both males and females based on pheromones\(^2,3,4\). Additionally one study showed that some males use pheromones to differentiate between females of various ages\(^3\). Pheromones have even been used to study females’ ability to predict the outcome of male competition\(^5\). Some crickets, it is believed, do not make use of cuticular pheromones during intraspecific interactions. Consequently, this study will examine whether or not *A. domesticus* makes use of pheromones during male-male, male-female, and female-female intraspecific interactions and chemically characterize the pheromones involved.


