

ポスター発表

[PS02] ポスター発表(学生 B:コアタイム2)

2024年3月30日(土) 12:30 ~ 13:30 桜(学生) (桜)

[PS02-48] Investigating the virulence and sublethal effects of
Beauveria pseudobassiana on oral administration to adult
Aedes aegypti and *Anopheles stephensi*

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Entomopathogenic fungi (EPF) effectively control insecticide-resistant mosquito populations. Potential of EPF for oral infection in adult mosquitoes remain unexplored. In this study, we used 5 highly virulent isolates on integument infection of mosquitoes, and they were assessed by oral administration to *Aedes aegypti* and *Anopheles stephensi*. After checking pathogenicity, *Beauveria pseudobassiana* 42-51 is administered orally to evaluate sub-lethal effects on both adult mosquito species. Fifty-nine % and 46 % reduction of blood feeding were recorded in *Ae. aegypti* and *An. stephensi* respectively. The number of egg laying significantly reduced 56 % (*Ae. aegypti*) and 60 % (*An. stephensi*). Poor and abnormal follicle development was observed in both mosquito species. Behavioral change on odor (CO₂) attraction was observed and 39-38 % reduction of attraction rate was recorded. Our study shows that *B. pseudobassiana* 42-51 can control both mosquito species as direct lethal effect, and it has potential of sub-lethal effects via oral infection.