



RIVERSIDE

DEPARTMENT OF ENTOMOLOGY

ENTM250 Seminar Series



Speaker:

Veera Singham

Ph.D. in Applied Entomology

Universiti Sains Malaysia

Date: Monday, January 9, 2023

Time: 4:00 pm - 4:50 pm

Format: In-Person Seminar & Virtual Access

Location: Genomics Auditorium 1102A

Zoom: 938 1040 4405

Passcode: 833289

Title:

“Insecticide resistance and resistance mechanisms in bed bugs”

Abstract:

In the last few decades, bed bug infestations have experienced a resurgence as a global public health threat. The common bed bug, *Cimex lectularius*, mainly distributed in the temperate region and the tropical bed bug, *Cimex hemipterus*, mainly found in tropical and sub-tropical regions, are now widely regarded as important public health pests following their rapid global resurgence, largely due to insecticide resistance and an increased rate of global travel. The use of insecticides remains important in managing bed bugs. Over the years, bed bugs manifested physiological and behavioral modifications resulting in reduced efficacy of insecticides targeted against them. Emerging evidence suggests that bacterial symbionts could modulate susceptibility of host insects against insecticides. The insecticide resistance mechanisms are well documented in *C. lectularius*, however, mechanism of insecticide resistance in *C. hemipterus* are still lacking. This demands further understanding on the resistance mechanisms involved in *C. hemipterus*. This seminar will focus on current discoveries of insecticide resistance and resistance mechanisms in bed bugs, especially the tropical bed bug, *C. hemipterus*. Future research directions focusing on insecticide resistance in bed bugs will also be presented.

Refreshments will be served in the Entomology Building Courtyard at 3:30pm