



FACULTY OF AGRICULTURAL SCIENCES & ALLIED INDUSTRIES

ENT-121: Fundamentals of Entomology

Lecture 14: Diapauses and Dormancy:

Dormancy is an inactive state associated with metabolic depression and arrested development that promotes the survival of insects during periods of harsh environmental conditions, including high or low temperatures or moisture conditions and reduced food quality or availability. Diapause may occur in any life stage (egg, larva, pupa, or adult); however, for a given species it generally occurs in only one stage

Hibernation: Hibernation is a state of minimal activity and metabolic depression. Hibernation is a seasonal heterothermy characterized by low body-temperature, slow breathing and heart-rate, and low metabolic rate. It most commonly occurs during winter months

Aestivation: Aestivation is a state of animal dormancy, similar to hibernation, although taking place in the summer rather than the winter. Aestivation is characterized by inactivity and a lowered metabolic rate that is entered in response to high temperatures and arid conditions.

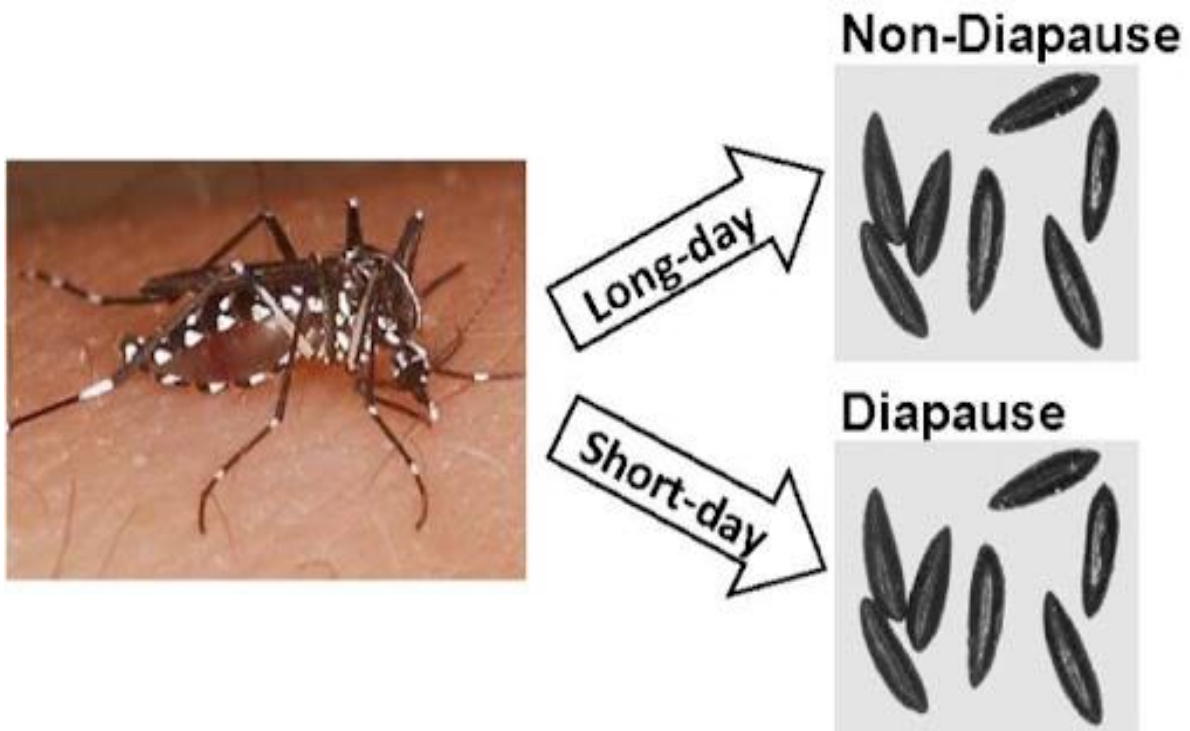


Figure 2. Photoperiodic diapause response of *Ae. albopictus*.