OVIPosition of the saltmarsh caterpillar moth (Lepidopterae: Arctiidae) is influenced by the presence of host plant and time of day.

ABSTRACT

The saltmarsh caterpillar moth, *Estigmene acrea* (Dairy), is a generalist that feeds on more than 60 plant species of different families. We investigated the influence of the host plant on oviposition by saltmarsh caterpillar, particularly on the number of eggs laid and survival of females, as well as the daily pattern of oviposition. The preoviposition time was delayed by the absence of plant material. Females enclosed with leaves of soybean, *Glycine max* (L.) Merr., laid more eggs in comparison to females without plant material. In the presence of plant material, females oviposited more eggs during the third, fourth, and fifth nights, whereas without soybean leaves, no peak of oviposition was observed. Fifty percent of the total number of eggs by all females was laid between the third and fourth nights in the treatment with plants and between the fifth and sixth nights in the treatment without plants. Females in the absence of plant material lived longer in comparison to females with soybean leaves. Fifty percent of the females enclosed with plant material died by Night 7, while 50% of females without plants died by Night 9. In a separate experiment, we found no difference in the number of mature eggs in females exposed to plant material compared to those not exposed. However, the same females laid more eggs in the presence of host plants compared to females deprived of plant material. Females oviposited mostly during the night, and few eggs were laid during the day. Females laid 72% of the eggs during the first six hours of the night; maximum oviposition occurred between 2000–2200 hours.

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