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Biological Control with Insects: The Waterhyacinth Moth
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(*Sameodes albiguttalis* (Warren) Lepidoptera: Pyralidae)

Host : *Eichhornia crassipes* (Mart.) Solms-Laubach (Pontederiaceae)

The eggs of *Sameodes albiguttalis* are small (ca. 0.3 mm), spherical, and creamy-white. When the larva is fully grown it seeks out a fairly large, relatively intact waterhyacinth leaf petiole and burrows into it. It excavates an elliptically shaped cavity in the middle of the petiole with a tunnel extending from one end. This tunnel leads from the cavity to just beneath the outside surface of the petiole but the end remains covered by the leaf epidermis. The larva then forms a cocoon that lines the cavity and extends up the tunnel. Soon afterwards, it sheds its last instar larval skin and pupates. After transformation is complete it breaks through the head end of the pupal skin, crawls through the silk-linedtunnel, and bursts through the leaf epidermis to exit from the petiole. The exit tunnel is necessary because the adults lack chewing mouthparts and could not otherwise escape from within the petiole. The adult moths frequently rest on the underside of waterhyacinth leaves. The females are generally darker in color than the males but color is extremely variable in both sexes. The adults probably live no more than a week to 10 days and many fall prey to dragonflies, spiders, lizards, frogs, and other predators.

Mating occurs shortly after emergence from the pupa and the female lays the majority of her eggs the following night. An average female will deposit ca. 450 eggs but up to 600 is not unusual. The entire life cycle requires 3 to 4 weeks.

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