

# SAW TOOTHED GRAIN BEETLE

## INTRODUCTION

The sawtoothed grain beetle gets its common name from the 6 teeth located on each side of the prothorax. It is one of the most important pests of stored products found in the home and grocery stores. It is worldwide in distribution.

## RECOGNITION

Adults **about 1/8"** (2.5-3 mm) long, with **body flattened**. Color **brown**. **With 6 sawlike teeth on each side of prothorax**. **Length of temple** (region directly behind eye) **greater than half the vertical diameter of eye**. Wings well developed, but **not observed in flight**.

Mature larva yellowish white. Less than 1/8" (3 mm) long. Elongate, without urogomphi (paired processes projecting from last abdominal segment), relatively smooth. Antennae 3-segmented with 2nd segment longest and 3rd very small. The merchant, foreign, and squarenecked grain beetles share this same description.



## BIOLOGY

The female lays 45-285 white, shiny eggs singly or in small clusters in crevices in the food material during a 2-5 month period. The eggs hatch in 3-17 days depending on the temperature. The larva molts 3 times (range 2-4) and usually constructs a pupal cell or cocoon from food particles held together with sticky oral secretions. Regardless, the larva attaches its anal end to some solid object to pupate. The life cycle (egg to egg) typically requires 30-50 days (range 27-375). The optimal developmental conditions are 86-95°F (30-35°C) and 70+% relative humidity. There may be as many as 6-7 generations per year but the

number is greatly dependent on temperature. On the average, adults live 6-10 months but may live longer than 3 years.

## **HABITS**

The sawtoothed grain beetle does considerable damage to grains but it cannot attack sound kernels. Its flat body form permits access through very small cracks and into imperfectly sealed packages.

Adults are not known to fly and are not attracted to light.

It attacks an extremely wide variety of foodstuffs which include cereals, bread, breakfast foods, macaroni, dried fruits, nuts, sugar, chocolate, dried meats, candy bars, drugs, tobacco, snuff, and many other products.