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Drugstore Beetle

Stegobium paniceum (Linnaeus)

GENERAL INFORMATION

The Drugstore Beetle is worldwide in distribution and is closely related to the Cigarette Beetle. They were found among herbal medicines and pharmaceuticals, thus the name. It was given the Latin name paniceum because of its affintity to breads. It's strong chewing mandibles can bore into books, through plastic and even through thin layers of tin foil.

SIGNS OF INFESTATION

Look for the adult beetles and the fine powder they leave behind after feeding. The eggs and larvae can also be detected on or near the food source. These pest beetles are extremely light attracted. Look for infestations around windows, sky lights and commercial lighting.

FOOD SOURCES

The Drugstore beetle feeds on pharmaceuticals, stored food products (e.g. cereal products, pasta, rice, dried fruit, seeds, dried fish) and many other organic materials. It is a serious pest in museums and has been known to attack books, upholstery, mummies and animal mounts. The extremely wide variety of products that this insect will eat makes it a very dangerous pest in a museum setting.

LIFE CYCLE

The life Cycle of a Drugstore beetle is dependant on the temperature (i.e. the lower the temperature the slower the process) and food source. The female beetle will lay approximately 100 eggs randomly on or close to a food source. The eggs will hatch in 6 to 10 days. The larval stage lasts for 35 to 70 days, during which time the larva feeds on the surrounding food source and avoids the light. The pupae stage takes 7 to 21 days. The adult beetles will live up to approximately 28 days. There can be overlapping generations especially in warmer climates.

DIAGNOSTIC MORPHOLOGY

Adults:

- Oval shaped adults are 1/10 inch long (2-3 mm)
- They are reddish-brown in color
- The wing covers have lengthwise lines of pits giving them a striated lookThe head of the beetle is deflected downward toward the body
- Each of the antennas have three enlarged segments at the ends

Immature Stage:

- White larvae are approximately 3/16 of an inch long
- They curl round and form a C shape
- The head and legs are brown in color

CONTROL & TREATMENT

The best solution for controlling Drugstore beetles is to engage in scrupulous housekeeping. Food stores should be inspected on a regular basis and the food should be kept in insect proof containers. If an infestation is discovered the best treatment appears to be to isolate the infested material and throw it out if possible. The area where the infested material was stored should be vacuumed and the vacuum bag should also be thrown out. If the infested material (e.g. manuscript) cannot be destroyed then various museum based treatments can be applied. Insect light traps and pheromone monitors can be beneficial for monitoring purposes.

Information current as of 2 March, 2012
For more information visit www.museumpests.net

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Fact Sheet: Drugstore Beetle

Photo Credit for Adult Beetle and larva: Patrick Kelley, Insects Limited, Inc.