

Furniture Carpet Beetle *Anthrenus flavipes* (LeConte)



GENERAL INFORMATION

This is a destructive household pest in many cities along the eastern seaboard, and in the warmer parts of the South and West, as well as in heated buildings throughout the country. Both the furniture and common carpet beetle are very similar to the varied carpet beetle. Both beetles are small (1/16" to 1/8"; 1.5 to 3.5 mm), rounded beetles that are covered with yellow, white and black scales. This species also appears in the literature under the name *vorax* Waterhouse. Adults feed on nectar and pollen. The larvae of this species have spearheaded setae of abdominal setal tufts. The head size of the larvae is intermediate in length between *Anthrenus verbasci* and *Anthrenus scrophulariae*. Cosmopolitan in distribution. The larvae are very similar to *A. scrophularia* and it is difficult to separate them in the larval stage, but the antennae and the peculiar spearheaded hair from the posterior tufts of the larvae are used to classify them. The length of the spearhead is 8 times as long as the basal width. Adults may be distinguished from *A. pimpinellae* by having an antennal club with the "first segment shorter than the second instead of about as long".

SIGNS OF INFESTATION

Sign of infestation of the furniture carpet beetle include feeding damage, larval cast skins and adults flying to light sources. Since larvae feed in a limited radius, their shed skins accumulate giving the appearance of more larvae than are actually present.

FOOD SOURCES

This pest was designated "the furniture carpet beetle" since it first attracted attention in 1911 in hair-filled furniture. It is destructive to animal



DIAGNOSTIC MORPHOLOGY

Adults:

- Spotted yellow, white and black above, and completely white or yellow on the underside
- The femur (third segment of the legs) is thickly covered with yellow scales
- Scales are broadly oval and rounded in shape as opposed to those of the varied carpet beetle which are long and thin
- Length is 2.0 to 3.5 mm
- Adults are very similar to Varied Carpet beetle, but differ by a slight V-shaped "notch" where wing covers meet a posterior end

Immature Stage:

- Larva rarely more than 1/4" (7mm) long and oval in shape.
- Reddish brown color, and covered with black and brown hairs
- Wider at the front and become slightly narrower at the rear.

products of all kinds including those noted below and also horsehair, tortoise shell and silk. Cellulose materials (linen, cotton, softwood) stained with animal excreta, or those enclosing other animal products will be eaten right through. Mold spores also serve as a food source as do dried cheese, casein and dried blood. Other food sources include materials of animal origin, e.g. wool, hair, bristles, fur, feathers, horn, leather. The larvae may gnaw holes in cardboard, insect specimens, or book binding. Larvae [112 to 384 days with 6-12 instars] are the damaging stage of the life cycle.

LIFE CYCLE

Eggs hatch in 15 to 18 days at room temperature, oval, white, with short spines at each end; larval period is 112 to 384 days with 6-12 instars; pupal period is 14 to 19 days; egg to adult can be 149 to 422 days; adult hardens up to 6 to 71 days in old pupal skin. Adults remain active for 32 to 200 days. Larvae are the damaging stage of the life cycle. The female lays 1-57 eggs in 1-3 batches.

CONTROL & TREATMENT

Standard museum freezing procedure (using Strang's 7 days at -20degrees C) is recommended, followed by careful and detailed vacuuming to remove evidence of old activity. Detailed "after freezing and cleaning" photographic documentation is recommended for reference.

MuseumPests.net

A Product of the Integrated Pest Management Working Group

Fact Sheet: Furniture Carpet Beetle

A Guide to Museum Pest Control, Lynda A. Zycherman, Editor and J. Richard Schrock, Assistant Editor. Published November 29, 1988. Foundation of the American Institute for Conservation of Historic and Artistic Works and the Association of Systematics Collections. ISBN: 0-942924-14-2.

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Hedges, Stoy A. and Dr. Mark S. Lacey. Pest Control Technology Field Guide for the Management of Structure-Infesting Beetles. Volume 1: Hide and Carpet Beetles/Wood-Boring Beetles. Franzak and Foster Co., Cleveland, Ohio. December 1996.

*Image of Adult and Larva by Clemson University - USDA Cooperative Extension Slide Series-
Bugwood.org