

Carpet Beetles

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Introduction

Carpet beetles belong in the family Dermestidae in the order Coleoptera. There are numerous species of carpet beetles found in North America. The four most important and most common species are the varied carpet beetle (*Anthrenus verbasci*) (Fig. 1), the black carpet beetle (*Attagenus unicolor*) (Fig. 2), the common carpet beetle (*Anthrenus scrophulariae*), and the furniture carpet beetle (*Anthrenus flavipes*). These beetles are common pests of stored products, but are also found on wool rugs and clothing, animal skins, and dead insects.



Figure 1. Varied carpet beetle (Joseph Berger, Bugwood.org).

Description

Adult carpet beetles are small, oval insects, usually less than 6 mm (0.25 inch) long. Their bodies are convex and somewhat resemble seeds. Some species have strongly patterned patches of colored hair or scales on the body (Fig. 1). These patches usually wear off with age, so that older individuals may appear quite dark and shiny.

Carpet beetle larvae are usually about the size of the adult beetle, 6 mm (0.25 inch) or less in length. They have dense tufts of long setae (bristles) on their bodies (Fig. 3). Black carpet beetle larvae have a

noticeably long tuft of hair at the end of their bodies (Fig. 2).



Figure 2. Black carpet beetle adult (left) and larva (right) (Clemson University, USDA Cooperative Extension Slide Series, Bugwood.org).



Figure 3. Dorsal view of a carpet beetle larva (Daniel R. Suiter, University of Georgia, Bugwood.org).

Habitat

Adult carpet beetles feed primarily on pollen and nectar and can be found on outdoor flowering plants during the summer. Indoors, the adults are often found at windows where they are attracted to the light.

Carpet beetle larvae can be found wherever their food sources are found. They prefer dry feeds with a high protein content, such as dried animal skins, feathers, wool, silk, dead insect bodies, and many different stored products. They may be found near birdseed or dry pet food kept in the garage. They can be associated with mice nests in wall voids or attic spaces if the mice have cached food there, or on the desiccated body of a dead animal.

Life Cycle

Carpet beetles have a complete life cycle of egg, larval, pupal, and adult stages. After emerging, adults can mate and reproduce without additional feeding. Females lay from 30-100 eggs, depending on the species. Eggs are laid in lint, behind and under baseboards, in floor cracks, or other dark and protected locations. Eggs hatch in 1-3 weeks. Larval development can occur over a 3-36 month period, and larvae can molt their skin from 5-12 times. Larvae often wander about, so infestations can spread from a single original site to many locations throughout the house. The pupal stage lasts 6-24 days, but the adult may take up to three weeks before emerging from the pupal skin.

Distribution

Carpet beetles are cosmopolitan in association with humans. They are found throughout Virginia and occur in both clean and cluttered dwellings.

Damage

The larval stage damages a variety of materials. Their preferred food varies with the species, but all carpet beetle larvae can feed on wool carpets and clothing, furs, hides, horns, feathers, hair, and silk. They will also feed on linen, cotton, and rayon if these fabrics are soiled with juice, food, or animal excreta. They can be pests in cereals, stored grains, nuts, meal, decorative Indian corn, spices, dry pet food, and similar products. Frequently carpet beetle

larvae are pests of insect collections and museum specimens.

Control

Sanitation is key to the controlling carpet beetles. Routinely clean cabinets and pantries to monitor for possible infestations in stored food products. Dispose of any infested food sources. Use a vacuum cleaner to remove any life stages and spilled foods that support beetles hiding in cracks and crevices. Keep all stored products in airtight bags or sealable containers. Foods that are susceptible to infestation can also be stored in the freezer. Infested foods can be heat treated at 120° F for 1 hour to kill these beetles.

Vacuum carpets, upholstery, and under and behind furniture regularly. Use moth balls or flakes when storing wool items. Inspect taxidermy mounts and similar items once a year for signs of damage. Check attic spaces for abandoned nests of birds, mice, or wasps that may harbor carpet beetles and remove when found. In addition, carpet beetles feed on dead, dried insects that collect in window frames and light fixtures. Clean these areas to eliminate possible carpet beetle infestations.

The old cast larval skins are often mistaken for live larvae, giving the impression that the infestation is much larger than it really is.

Revised

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