

MU Guide

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Carpet Beetles and Clothes Moths

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Carpet beetles

Carpet beetles belong to the beetle family Dermestidae. The adults are harmless and feed on plant pollen exclusively. It is the larva (growing stage), that causes damage by feeding on items primarily of animal origin. Carpet beetles will also attack other materials, such as cotton and synthetic fibers if these fabrics are soiled with human perspiration, body oils, beer, milk or fruit juice. Some carpet beetles may become “pantry pests” by invading cereal grain products.

Black carpet beetle

The black carpet beetle, *Attagenus unicolor* (see Figure 1), is the most destructive and widespread carpet beetle in the United States. Adults are black with brown legs, somewhat shiny, oval and about 1/8- to 3/16-inch long.

The larva is brown and carrot-shaped with a long brushy tail of brown hairs, and up to 1/2-inch long at maturity.

Black carpet beetle larvae will eat almost anything of animal origin, such as wool, hair, feathers, leather, furs, stuffed trophy animals, dead insects or silk. They may also feed on cereal grain products and nut meats. Development from egg to adult beetle takes from nine months to two years.

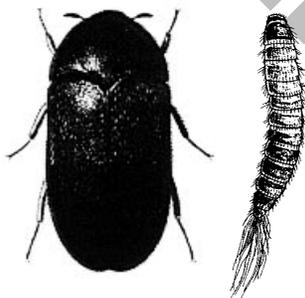


Figure 1. The adult black carpet beetle, left, and larva, right.

Varied carpet beetle

The varied carpet beetle, *Anthenus verbasci* (see Figure 2), is the most commonly encountered carpet beetle in Missouri. The adult beetle is a rounded oval, convex and about 1/8-inch long. The wing cover surface is patterned with brown, yellow and white scales. The ventral surface of the body is covered with fine, long grayish scales. Larvae are approximately 3/16-inch long at maturity.

They appear to be composed of a series of alternating light and dark brown transverse stripes. They are very fuzzy and have three pairs of dark brown bristly bundles located somewhat laterally on the segments near the rear end.

Varied carpet beetle larvae feed on anything of animal origin, as described for the black carpet beetle. They are also often associated with abandoned bird nests. Development time takes from nine months to one year.

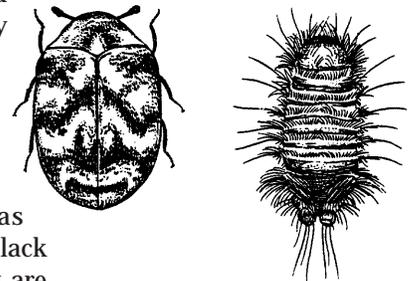


Figure 2. The adult varied carpet beetle, left, and larva, right.

Other species

Other species found less often in Missouri homes include the common carpet beetle, *Anthrenus scrophulariae*, and the furniture carpet beetle, *Anthrenus flavipes*. Both species are very similar in appearance and feeding habits to the varied carpet beetle.

Clothes moths

Clothes moths belong to the moth family Tineidae. The larval (caterpillar) stage damages items of animal origin, such as wool, fur, silk and feathers. The adult moths do not feed. They are rarely seen because they tend to hide in the dark during daylight. The Indian meal moth, a common “pantry pest,” flies about during daylight and is often mistaken for one of these moths.

Casemaking clothes moth

The casemaking clothes moth, *Tinea pellionella* (see Figure 3), is a buff gray color and approximately 1/8-inch long with its wings folded along the body. Each front wing has three somewhat indistinct darker spots of scales.

The larva is creamy white with a brown head. It produces a silken tube-like case in which it lives and carries around for protection. The head and legs are

exposed only during feeding and movement. This case is camouflaged with bits of the material on which the larva has been feeding. The larva is approximately 1/2-inch long at maturity.

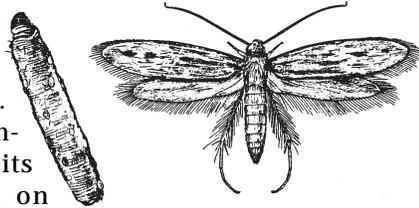


Figure 3. Larval casemaking clothes moth, left, and adult, right.

Development from egg to adult is highly variable, depending upon available food and environmental conditions. It may be as little as a month.

Webbing clothes moth

The webbing clothes moth, *Tineola bisselliella*, is a uniform buff color, approximately 1/4-inch long (see Figure 4). It has a small tuft of red hair on the top of its head.

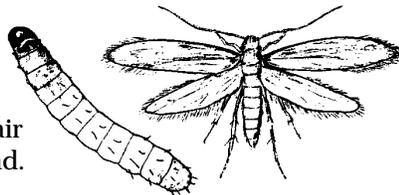


Figure 4. The webbing clothes moth larva, left, and adult, right.

The larva is whitish colored with a brown head. It produces a silk-lined "tunnel" as it eats through or on the surface of a fabric. The moth is approximately 1/2-inch long at maturity. Its developmental time is very similar to that of the casemaking clothes moth.

Control measures

Prevention

Vacuum wool carpets often enough to prevent the accumulation of hair, lint and other carpet beetle food materials. Remember to vacuum under seldom-moved furniture and along baseboards. Upholstered furniture, air ducts and other lint-accumulating sites also need this cleaning.

Dry clean or launder woolens and place them in tightly sealed containers for summer storage. Moth balls (naphthalene) or PDB (paradichlorobenzene) crystals may help prevent carpet beetles and clothes moths from invading the articles. Use paper to avoid direct contact between chemical and the articles. Avoid long-term and undisturbed storage of susceptible materials.

Help deter carpet beetle invasion by removing abandoned bird nests and bee and wasp nests from attics, wall voids and eaves. Remove dead insects in light covers, window sills or other places of accumulation to avoid carpet beetles.

Chemical control

Spray infested carpet or upholstered furniture with a light mist, to the point of dampness, or dust with one of the insecticides listed in Table 1. **Do not spray clothing**, just the cracks and crevices of the clothing storage area.

When treating rugs that are not fastened to the floor, treat both top and bottom surfaces. These pests like undisturbed locations, so treat all carpet under furniture and the under side of upholstered chairs and couches. In the case of wall-to-wall carpeting, be sure to treat along all baseboard-to-carpet contact areas.

Ready-to-use aerosol sprays containing insecticides, such as allethrin, resmethrin, tetramethrin and pyrethrins may also be used to spray carpet, upholstered furniture and stuffed toy animals. Stuffed animal trophies may require an additional internal spray or dusting. Use a crack and crevice injector to spray inside or a puff duster to inject an insecticidal dust, such as boric acid, bendiocarb (Ficam), carbaryl (Sevin) or chlorpyrifos (Dursban).

Do not allow children or pets into the sprayed areas until the treated surfaces are thoroughly dry. Dusts used in open areas should be left for a few days and then vacuumed up before children or pets are allowed in the area.

Staining or running of colors is a possibility with certain fibers. Test a small, hidden area with the spray product to check for any adverse effects before applying the chemical to the entire area.

Insecticide	Application concentration		Remarks
	Spray	Dust	
Bendiocarb (Ficam)		1%	Difficult to find except in PCO supply stores
Boric acid market		1 - 99%	Many formulations on
Chlorpyrifos (Dursban)	0.5%	1%	Dust sold as Ortho-Klor Ant Killer Dust
Cyfluthrin (Tempo)	0.05%		For use only by Pest Control Operators (PCOs)
Diazinon	0.5%		
Lambda-cyhalothrin (Commodore)	0.15%		For use only by PCOs
Permethrin (Flee)	0.5%		For use only by PCOs

Table 1. Insecticides for carpet beetle and clothes moth control.