





	The Pest and Its Life Cycle	The Damage Stage	Detection	Control	Prevention
	<p>Clothes Moth and Larvae The clothes moth spins webbing and lays eggs which hatch into larvae (small worms). The larvae spin a cocoon in which it transforms into an adult moth. Moth infestation can multiply rapidly and cause severe damage.</p> <p>Approximate size: Adult 9mm., larva 9mm.</p>	<p>The larvae does damage by feeding on the protein of wool, fur, and silk. The cocoon under which the larva feeds, includes bits of fiber from the object so that it is often effectively camouflaged.</p>	<p>A silky webbing is always associated with a moth infestation. It is important to inspect a textile on all sides when looking for infestation. Moth larvae leave holes or thin areas in a textile. If infestation is advanced, a granular excrement can also be found on or around the textile. Moths prefer darkness and will shun light.</p>	<p>If infestation is localized it is possible to carefully vacuum the object, providing it is strong enough to withstand the suction. Vacuuming should be thorough on both sides of the object with special attention to seams and creases. Dry cleaning is advisable for contemporary garments as it will kill all stages of infestation. This treatment however is not always safe for historic textiles. Freezing is an effective and safe method of eradicating an infestation. See notes under "Freezing."</p>	<p>It can not be stressed enough that good housekeeping is essential in preventing an infestation. Examine garments and textiles very carefully before storing. Screen all access to outdoors (airducts and windows) to prevent the entry of flying moths. Periodic inspection of collections is necessary for pest control.</p>
	<p>Carpet Beetle and Larvae The hard shelled carpet beetle, black or mottled black and white, lays eggs which hatch into larvae. The larva is yellow to brown in color, and is very fast moving. A carpet beetle larva will molt several times during its life leaving a skin casting.</p>	<p>The larvae of the carpet beetle can do extensive damage as it feeds without preference on wool, fur, and silk. The larvae also feed on dead insects.</p>	<p>If you have an infestation of carpet beetles you will be able to find bodies of adult beetles and larval skin castings in light fixtures, on window sills and in the cracks of floor boards. Carpet beetle larvae leave clean neat holes in textiles with a fine powder the same color as the object left behind. By placing white paper in the bottom of boxes or on shelves, the powder left underneath the infested object will be clearly visible.</p>	<p>Carpet beetles, unlike moths, are attracted to light. Insect sticky traps set on window sills are effective in trapping carpet beetles. Carpet beetle eggs are very fragile and are easily destroyed when brushed off. An infested textile can be carefully vacuumed and/or dry-cleaned if appropriate. Freezing is also an effective treatment. See notes under "Freezing."</p>	<p>Good housekeeping is very important. Dust, dirt, dead insects and human hair all act as food in sustaining a carpet beetle infestation. Light fixtures should be emptied of dead insects and storage areas containing textiles should be kept clean. Windows and vents should be properly sealed. Periodic inspection of textiles is essential. Carpet beetles can enter your home on flowers or plants.</p>
	<p>Silverfish Silverfish are small, wingless insects that do not have larvae in their life cycle. They lay eggs that hatch into nymphs and resemble miniature adult silverfish. Nymphs molt several times before they mature into adults.</p> <p>Approximate size: 12.5 mm.</p>	<p>Both adult and nymph silverfish cause damage. They hide in cool, dark places and feed on sizings that consist of starch, sugar and/or protein. Silverfish have rasping mouth parts and cannot successfully chew textile fibers but can cause damage to fine fabrics such as silk, cotton, linen, and rayon.</p>	<p>Silverfish can leave irregular holes by eating the surface material of objects. Rarely do they cause a hole in the textile but rather a shaving off of the surface fibers. Generally, silverfish are more of a problem for books than for textiles.</p>	<p>The presence of silverfish indicates a moisture problem. Infested areas should be aired out and dried. A professional exterminator can successfully eliminate a silverfish problem.</p>	<p>Proper storage is important in the prevention of infestation. Nylon netting wrapped around storage boxes is an effective method in preventing the entry of pests. Storage areas should be kept dry.</p>
	<p>Mold and Mildew Mold and mildew are microorganisms that are ever present in the air and soil. Under certain conditions such as high humidity a fungal growth develops from spores. This can damage textiles. If fabrics are the least bit moist when stored, a mold and mildew problem may occur.</p>	<p>Mold and mildew are spore growths and for nutrition they break down the cellulose found in cotton, linen, and rayon. They cause a stain which if left on a textile cannot be easily removed.</p>	<p>Mold and mildew appear as irregular shapes of gray, black, or green spots on fabrics. Growth can occur when textiles are framed and glass is placed directly against the piece. Mold and mildew will discolor fabrics and emit a musty odor.</p>	<p>Textiles that have evidence of mold and mildew should be aired out and then carefully vacuumed. It may be advisable to have the textile cleaned; check first with a conservator.</p>	<p>If proper air circulation is maintained and relative humidity of a storage area is kept at 45-55% with a temperature of 68-72° F, mold and mildew should not occur.</p>