

Caring for your collections: Pest Management

A variety of insects and pests attack collections. The most common enemies of paper and photographic materials are cockroaches, silverfish, and cigarette beetles (often called book worm).

- Pests thrive in warm, dirty, poorly ventilated environments.
- Insects and rodents are attracted to paper, photographic emulsion, glue, leather, and textiles. Damage is often irreparable (see image below showing damage caused by cigarette beetle). In addition to eating materials, they also foul storage areas and objects with their droppings.
- Traditionally pesticides have been relied upon for routine pest control. It is now recommended that a strategy called **Integrated Pest Management (IPM)** be implemented. This approach relies primarily on non-chemical means (such as controlling climate, food sources, and building entry points) to prevent and manage pest infestation. Chemical treatments are used only in a crisis threatening rapid losses or when pests fail to yield to methods that are more conservative. Preventive techniques are used to minimise food, moisture, and environmental conditions required for pest survival.



(left) A bound newspaper volume damaged by a cigarette beetle infestation.

What you can do

- There are several simple steps you can take to minimise pest activity in your collections and home.
- Prevent eating and drinking in the areas where you store and view collections.
- Introduce a regular cleaning programme to maintain a clean, uncluttered environment. Floors, shelves, boxes, and cabinets should be kept dust-free and well ventilated.
- Ensure good air circulation. Do not over pack shelves or boxes. Allow spaces between each object or book. If possible, do not store collections in poorly ventilated storage units such as tea chests, glass fronted bookcases, and cupboards.

- As well as increasing the possibility of insect and mould activity, many storage environments are made of materials (e.g. wood and wood by-products) that off gas harmful substances, which without sufficient ventilation will damage the objects being stored.
- Fans can be used effectively to keep air moving within a room. Air conditioning without humidity control can create a damp, still environment and should not be used.
- Avoid storing materials on the floor where they are more likely to be damaged by insects and rodents or water leaks.
- The condition of the building itself is another important factor. Pests infiltrate through cracks and holes in building structures. It is important to seal openings in buildings to inhibit passage.
- Flyscreens will discourage flying insects such as moths, termites, and cockroaches.
- Containment of affected areas or objects is important in preventing infested materials from contaminating non-infested collections.
- Always inspect any incoming objects for insect and mould activity before bringing them into your house or collection area. It is also a good idea to clean all incoming material.
- Early detection is critical in a pest management program. Regular inspection of the storage environment and collections is necessary to monitor any pest activity. Look out for signs of droppings, corpses, and evidence of damage.
- Sticky blunder (glue) traps can be placed in strategic locations to assess insect activity within a specific area. Traps need to be regularly checked and replaced. Records should be kept for long term evaluation of changes. These are often available from your local hardware store.
- If you discover an outbreak, quarantine affected material and treat infestation. Non-chemical techniques of killing insects include freezing affected material (N.B. Not all material can be frozen, if unsure, check with a conservator or refer to our guide “Freezing water damaged and insect infested collections”, or place infested material in a low oxygen (anoxic) environment. Do not use pesticides or insecticides on your collections. Harmful residues can damage your objects. The use of camphor and naphthalene is also discouraged as both these are ineffectual and harmful to humans.
- Before returning treated material, thoroughly clean the area, and check surrounding areas for signs of activity. Pest traps can be used effectively for this purpose.
- Pest activity will recur if conditions remain conducive. Therefore, it is essential to maintain a pro-active approach to pest control.

Useful Websites

- AICCM Australian Institute for Conservation of Cultural Material www.aiccm.org.au
- AIC American Institute for Conservation www.conservation-us.org
- Find a conservator in private practice through the Australian Institute for Conservation of Cultural Material (AICCM) www.aiccm.org.au

The procedures described here have been used by State Library of Queensland in the care of its collections and are considered suitable by State Library as described; however, State Library will not be responsible for damage to your collections should damage result from the use of these procedures.

Need further information?

(07) 3840 7810 | www.slq.qld.gov.au/preservation

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