



Spot a pest problem early

This sheet will describe:

- what to look out for;
- monitoring options;
- treatment measures;
- preventive measures.



Live insects, their pupae and larvae can thrive amongst the natural materials such as paper and textiles which are commonly found within collections. Some of the more common pests include book lice, silverfish, spider beetles, moth and woodworm.

Insect damage

Insects cause physical damage by feeding and nesting on and in the organic materials such as paper found in collections. For example silver fish graze the surface of paper; wood worm larvae bore holes into book boards and moth create holes.

Typical signs

Apart from the damage caused, insects also excrete frass. This appears as fine, pellet-like debris which may have collected in book spines for example. Frass may also contain insect parts or pupae casings. It can be difficult to determine whether this evidence may be from a past infestation. Spotting a live insect will confirm otherwise.

Collection checking

If items are new acquisitions, or suspected to be infested, they should be **quarantined** away from the main collection until confirmed to be pest free.

Insects prefer dark, moist, undisturbed places, so careful examination is needed (e.g. unfolding items, opening books and tapping gently on a surface to release debris) to detect evidence. If environmental conditions are damp, insect activity is more likely.

If evidence of past insect activity is found, the item needs to be cleaned before being quarantined in a clean box or wrapper for a few days before checking again for any fresh evidence. Repeat the process until confident it is insect-free.

Treating affected archives

A live infestation may need freezing. Most paper-based items may be safely frozen. Items should be wrapped in tissue to prevent condensation and bagged in two clear plastic bags with a label in between, then tied with as much air excluded as possible. 2-3 weeks in a domestic freezer will kill most insects. Defrost without unwrapping, before opening and inspecting.





Detection

Early detection of insects is the most effective means of control. Observation and vigilance are a key part of this. To make this a more thorough and systematic process, use **sticky traps** with pheromones to attract insects and set up a recording mechanism for results and observations. Insect activity may be seasonal depending on the life-cycle of the species, this may be flagged up with record keeping. Usually traps are placed on the floor, and near possible entry points such as doors, pipes etc. Traps should be changed regularly, as the pheromones are exhausted after around three months.

Controlling insects in the storage area

Detect and remove the source: the source of the infestation should be first established if possible. For an infested item in the collection, it should be isolated. Problems such as e.g. an old bird's nest in the gutter outside the storage area, or rubbish nearby should be identified.

Environment: damp environments are conducive to insect activity. Reduce humidity if it is too high and ventilate any damp spots.

Cleaning: clean shelving, floors and boxes where dust and debris have accumulated and may provide food for insects.

Desiccating dust: once an insect entry point or hot spot has been identified, the adjacent area may be treated with a desiccant, silicon based dust. The dust is picked up by insects passing over it and returning to the nest. The powder irritates the external casing of the insect causing it to dry out and die. The powder needs to be left undisturbed and applied and swept up using the appropriate protective mask and gloves.

Prevention

These measures will reduce the risk of insects becoming established in the storage area or collections:

- good housekeeping - keep surfaces clean and nearby areas free of rubbish;
- quarantine and inspect items before admitting them to the main collection;
- monitor the area using sticky traps;
- keep the area cool, dry and well ventilated;
- check external walls, drains and gutters regularly;
- do not use carpets or rugs on the floor;
- box or package as much of your collections as you can;
- do not eat, drink or store food stuffs in or near the storage area;
- check gaps around windows, grates;
- do not have plants in or near the storage area.