

# MuseumPests.net

A Product of the Integrated Pest Management Working Group

## BED BUGS IN LIBRARIES – CASE STUDIES

### Case study #1: Circulating collections returned from infested homes

One library has developed protocols for all circulation staff to follow in the event a patron reports a home infestation when returning books. The books are placed individually in 3 mm Ziploc polyethylene bags. If the book record can be accessed without the desk attendant opening or handling the books, the book is marked as returned, if not, the patron's online record is updated with a note that the book return is pending treatment.

The circulation attendant contacts conservation department staff members who place the sealed items in the department's freezer. Treatment is by cycling, with seven days at minus 20 degrees F, followed by 4 days at room temperature. Three complete treatment cycles are carried out. When finished, the books are visually inspected. If any signs of former infestation are found, the books will be cleaned by HEPA vacuuming.

In one 12 month period, 65 books from seven separate reported infestations were treated. A total of eight staff hours were used in treatment. No signs of infestation were found in any of the books in the post-treatment inspection.

While this library chose the temperatures and treatment times listed above, higher temperatures and shorter times have been shown to be effective. See the [www.museumpests.net](http://www.museumpests.net) Bed Bug Fact Sheet on the *Identifications* page for more information. For a discussion of low temperature treatments, including freezer specifications, see the *Solutions* section of [www.museumpests.net](http://www.museumpests.net).

### Case study #2: Infestation in a library staff area

One urban research library has experienced several episodes of bed bug infestation in staff processing and office areas. In some cases, there were reports of staff experiencing infestations at home that were presumed to be the cause. In one instance, a single mature bed bug was found on a staff desk, which was presumed to have come from circulating books being processed in the department.

Response to these episodes has varied according to the circumstances. When the bug was found in the office area, it was felt that a vigorous response was necessary due to the presence of special collections materials in other areas of the department. Nineteen cubic feet of books, paper supplies and other materials were sent to a commercial vendor for two cycles of freezer treatment on this occasion. (Note that vendors who provide freeze drying of wet collections will often also provide freeze treatment for pest eradication.) Visual inspection of circulating books coming into the department is now carried out before they are introduced into the area.

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In another incident, a staff office where some paper documents from the special collections library were being used for research was found to be badly infested. The conservation staff and pest control company believed that the infestation had been established for a long time judging by the extent of the visual evidence, and there were signs that one of the staff members had been applying self-treatments. A multi-faceted treatment approach for the room included removal of the collections materials (file drawer contents, general collections books as well as the special collections papers) for freezer treatment, heat treatment of some urgently needed documents, steam cleaning of the floors and furniture, discarding of the office chairs, and then treatment of the electronic equipment (computers, printers) with sulfuryl fluoride. The freezer treated documents were visually inspected by the conservation staff upon return to the library. The cost of the entire treatment (2010) was in excess of \$13,000. This does not include the staff hours spent by the conservators, facilities liaison and assistant liaison, approximately 45 staff hours.

Following the infestation of the staff office, the library human resources office distributed identification information and a set of guidelines for staff on how to respond to infestations in staff areas, with a separate set of guidelines on how to respond when members of the public were involved. The guidelines specifically forbid attempts by staff members to treat infestations themselves and encourage staff to report home infestations so that their office areas can be inspected as well.

## **Case study #3: Infestation in the public area of the library**

The library in this case study is a college library which is open as a 24 hour study space during the academic year. This accessibility has led to problems with affiliates moving into small group study rooms for extended periods, apparently storing personal belongings and sleeping on the upholstered chairs. In one twelve month period, two separate incidents occurred in which several of the rooms became infested. The heavily-infested upholstered chairs were sealed and discarded (a total of seven armchairs) and the rooms were cleaned and treated with steam.

The library has implemented some measures to follow up on these incidents. A single use of sniffer dogs to inspect the public areas was carried out, though there was recognition that this was only a “snap shot” of the condition of the library at a particular moment. Conservation has recommended that a regular program of steam cleaning should accompany continued use of soft furnishings in the public spaces. Library staff members have also worked with the building cleaning staff, who work in evening hours, to raise awareness of these problems and encourage them to report “campers” in the library to access services staff. As further follow-up, the contracted pest management company will now conduct regular visual inspections in the public spaces.