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## NSCG Newsletter

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Title: Insect pests at Willis and other Hampshire museums: 1996-7

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Source: Moore, S. (1998). Insect pests at Willis and other Hampshire museums: 1996-7. *NSCG Newsletter, Issue 7, The Ten Agents of Deterioration, 3. Pests*, 20 - 23.

URL: <http://www.natsca.org/article/1117>

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on sticky traps with the result that no Clothes moth or similar have been detected since.

#### Final comments

It was surprising to have such an established infestation in the affected gallery, especially as at the time the infestation was discovered the gallery was only a year old. Generally it takes about a year for a clothes moth generation to appear (Pinniger 1994), and this one was well established. The feeling is that the infestation was introduced with the construction of the gallery, possibly in one of the bird nests, a point to consider more carefully in future gallery construction projects.

Overall it was felt that the use of the pheromone lures resulted in successful pest control with limited pesticide application. It also demonstrated that the clothes moth pheromone lures have great potential as part of a general monitoring programme, especially in little used storage areas.

#### References

- Busvine, J.R. 1980. *Insects and hygiene*. Chapman and Hall.
- Pinniger, D. 1994. *Insect Pests in museums*. Archetype Publications
- Zycherman, L.A and Schrock, J.R. 1988. *A guide to museum pest*

*control*. American Institute for Conservation of Historic and Artistic Works and The Association of Systematic Collections. Washington DC USA.

#### Suppliers

Pheromone lures  
*Insects Limited Incorporated,*  
*obtainable from:*  
*Historyonics*  
*17 Talbot Street*  
*Pontcanna*  
*Cardiff CF1 9BW*  
*Tel 01222 398943*

Sticky Traps  
*Historyonics*  
*as above*

*AgriSense-BCS Ltd.*  
*Pontypridd*  
*Mid Glamorgan CF37 5SU*  
*Tel: 01443 841155*

#### Pesticides

Many available, but a good recommendation is an water based permethrin spray which has become available since this infestation occurred. This is called Constrain and is available from Historyonics (contact address above).

*Julian Carter*  
*Conservation Officer*  
*National Museum and Galleries of*  
*Wales*

## Insect Pest Control in Collections Course

Since graduating with an MA in the Conservation of Fine Arts, Works on Paper, from the University of Northumbria at the end of August, I have been working as an intern in the Paper Conservation Section at the NMGM Conservation Centre, Liverpool. In the new year I will be starting my new job as Conservator with West Yorkshire Archives Service in Wakefield.

While at Liverpool I was fortunate to receive a bursary from 'International Academic Projects' in London to attend the above course at the Liverpool Museum on the 4th and 5th December.


The two-day course was an informative, lively and practical introduction to the prevention, monitoring and handling of infestations. This is a problem or issue that I am almost guaranteed to come across, to a greater or lesser extent, throughout my career as a paper conservator. David Pinniger, Tracey Seddon and Steve Judd lead excellent informative, visual and interactive sessions focussing on key areas such as pest identification, eradication and health and safety. A useful resource pack was also provided

which will be my first port of call on the subject in the future. By working in teams (and so getting to know other professionals in related fields) and looking at real specimens and environments, simulated hands-on experience was gained which will translate well into a real situation. Indeed, with my newly acquired knowledge I was recently able to identify part of a larva case from a previously infested leather and fabric miniature case I am treating. Finally, this course provided the ideal beginning to my own Continuous Professional Development at the outset of my career as a paper conservator, and one which will be a hard act to follow.

*Shirley Thomas*

*Paper Conservation, The*  
*Conservation Centre, Liverpool*

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## Insect Pests at Willis and other Hampshire Museums, 1996-7.

In my Springtime editorials I was always warning about ingress of pest beetles and moths, and although the biology collections at Hampshire County Council Museum Service have remained largely insect free, taxidermy specimens on static

display in the Hampshire Museums have suffered at the mandibles of *Anthrenus* and *Attagenus* larvae.

The Willis Museum in Basingstoke has a large panoramic display showing an oak woodland merging into heathland, complete with fur and feathered specimens. Early last year a jay specimen was reported to be "looking rather tatty". In fact it had been munched to a heap of feathers by both *Anthrenus* and, especially, *Attagenus* larvae. Once the specimen had been fumigated it was consigned to a jar, in my Black Museum. This year a hedgehog became the next victim to an attack, solely by *Attagenus* who munched their way through the skin and even reduced many of the hedgehog's spines to dust! Since this specimen had been freeze-dried, I have kept the larvae together with the specimen in a sealed container in the hope that, over the next year, they will make a fine skeleton!

Despite vigilance on behalf of the Museum Assistants who know what to look out for, the Red House Museum in Christchurch has also had its fair share of pests. This year, *A. verbasci* larvae managed to tunnel inside a field mouse and hide all their cast skins under a nearby piece of lichen!! Does this suggest that this beetle's larvae are evolving

a certain cunning against detection? So far, at least, I have been lucky that nothing rare or expensive-to-replace has been hit and which would beg the awful question of whether the specimen was worth replacing - "Rather an expensive meal" I heard a curator saying at a recent meeting.

Display cases, large or small, always seem to have openings for pest moths and beetles especially, to get through - how an *Anthrenus* beetle manages to enter through a gap that would barely accommodate a postage stamp edge-on is both amazing and worrying.

HCCMS has recently improved its Mk 1 nitrogen fumigator prototype and results have shown a 100% knock-down of all insect pests. A larger tank is to be purchased in 1998. This has proved infinitely more effective, safe and convenient than fumigation by methyl bromide, with all its problematic side effects, and CO<sub>2</sub>, (expensive).

#### *Pests - some less usual occurrences*

##### **Beetle larvae that survived freeze-drying**

I have heard of some insect larvae being frozen to -30°C and put under a vacuum to 0.01 atm and then

walking away after reaching room temperature. Certain invertebrates have their own built-in antifreeze system; spiders are well-known for this which makes them difficult to freeze dry. The present instance involved a large specimen of the birch polypore *Piptoporus betulinus* which underwent freeze-drying over a 3 week period. Four days after the process had been completed, a small amount of frass was observed in its storage polybag, which was put down to an unclean bag. The next day there were about 20 beetles, which proved to be *Cis bilamellatus*, wandering around in the bag with increased amounts of frass. The fungus was quickly frozen and the beetles were killed. Since then there has been no further infestation to this specimen. So beware that freeze-drying may not necessarily kill off any lurking pests!

##### **Mice**

Last year the Red House Museum in Christchurch also reported a rodent infestation: one of the displayed mannequins in Victorian dresses had suffered the indignity of having its shoe nibbled quite severely during the night. Although no mice were caught, their mode of entry to the case via a ventilation panel was effectively blocked off and the problem was solved until a

contractor moved it and the mice came back. Despite tempting them with milk chocolate none were caught and once again the mannequins had to undergo the further indignity of having their long skirts lifted over their heads!

The incident of the chocolate was puzzling since, some years ago, my Mother had left some chocolate digestive biscuits in our beach hut only to find, a few days later, that mice had carefully nibbled away the biscuit half leaving a thin chocolate slice reminiscent of an after-dinner chocolate! These were of plain rather than milk chocolate however.


##### **Dogs**

Dogs will often enjoy a piece of leather whether it's a dog-chew strap, your belt, even a knife sheath. A personal tragedy: a beautiful late 17th century personal eating knife in its original shagreen-veneered sheath and fitted with decorative silver mounts. The sheath and knife were removed from the middle of a (large) kitchen table during the night. The knife was recovered from the dog's bed the next day with some blood stains on the blade, no sheath until, during breakfast (!!!) the dog vomited up its nocturnal booty. Unfortunately the semi-digested sheath was irrecoverable but a rather unpleasant search revealed the silver

mounts all bright and sparkling. The blood stains occurred when the dog cut its lip on the knife blade! Is there a moral here?

*S.J. Moore  
Conservator of Natural Sciences  
Hampshire County Council  
Museums Service,*

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## **Pests in Geological Collections**

I suspect that most articles in this issue will concern insect pests and biological collections. I felt it might be useful to describe a few instances of pest infestation in geological collections.

### **Mice infestation in a palaeontological collection**

I encountered a mice infested fossil collection on a work experience placement from my Museum Studies course. My task for the two weeks was to go through wooden drawers housed beneath display cabinets, check the collection against an existing register, check identifications and taxonomy, then clean, accession, re-bag and complete computer catalogue entry cards for someone else to copy type

onto the local authority mainframe computer.

Specimens had old paper labels attached with animal glue and most were housed in thin polythene bags. As work proceeded, it was found that several of the shallow drawers closer to the floor had a pest problem. A colony of mice had had a field day, the polythene bags were chewed to shreds to make nests, some labels had also been chewed up, possibly with the added benefit of tasty animal glue to eat, drawer bases were stained with urine and there were mice droppings all over the place. The general stirring up of the collection had caused some specimens to break and pieces to become disassociated, a few specimens had also been gnawed.

Fortunately, the existence of an earlier catalogue and the systematic ordering of specimens meant that it was possible to sort out each drawer fairly easily. The mice had not managed to move specimens between drawers.

The museum was heated by large pipes running beneath the floor with cast iron grills on top.

Presumably, the mice had entered the building via these heating ducts.

### **Rats!**

A friend of mine was forced to discard their geological collection for similar reasons. The collection was housed in an old chest of drawers, carefully wrapped up in newspaper, and kept in the workshop in the garden.

Due to the neighbours habit of keeping a sheep in the back garden, rats became a problem in the area. Some considerable time after the rat man had been to put down poison bait, my friend decided to have a look at his collection. The rats had returned to their nesting spot inside the chest of drawers to die, leaving an most unpleasant mess of shredded newspaper and rotted rat. The collection was a complete write off.

### **Invertebrate pests in geology collections**

Poor storage conditions for collections, such as sheds and temporary buildings, often means that cabinets are infested with woodworm and cabinet contents with museum beetle, silverfish, spiders etc. regardless of the contents. If such an old collection is acquired by a museum, it should not be assumed that just because it is a geology collection, it won't have a pest problem. I have spent many hours cleaning shed skins of

museum beetles off geology specimens, picking off remains of insect bodies and then treating cabinets for woodworm.

Recently, I have encountered similar problems in an old egg collection. Fortunately, in both institutions, all incoming material is quarantined and fumigated (either by methyl bromide or freezing) so pests were dead by the time the collection came to be conserved and curated.

### **Prevention**

Most of the problems described above could have been prevented by housing collections in good conditions rather than poor quality sheds and temporary buildings. A regime of housekeeping, tidy storage of packaging materials, regular inspection of collections and very strict enforcement of locations in which food and drink can be consumed within the museum environment would have prevented problems from escalating. Preventing access to buildings by keeping windows closed, blocking holes to the outside and ensuring that doors and loading bays close properly will prevent pests from entering in the first place. Rubbish bins with food waste stored close to entry points will encourage rodent pests.