NatSCA News

Title: Risk Assessment workshop at the Natural History Museum

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Source: Andrew, K. (2005). Risk Assessment workshop at the Natural History Museum. *NatSCA News*, *Issue 6*, 43 - 44.

URL: http://www.natsca.org/article/293

They also carry out preventive conservation in the form of environmental monitoring and control; pest control, testing and give advice on the correct display and storage materials to be used museum wide. A tour of the natural history gallery also drew attention to some of the problems inherent in historic galleries – namely environmental control, dust accumulation, materials and the variety of skills involved in looking after the range of material on display – taxidermy, fluid preserved specimens and fossils are all housed in the gallery and need regular monitoring and maintenance.

The final visit of the day was to the Natural History Laboratory where Jo Hatton, Deputy Keeper gave a brief introduction to the size and scope of the collections. These comprise approx. 250,000 zoological, geological and botanical specimens and are still being added to through active research. Treasures in the collection include Horniman's original entomological specimens such as the type of the Horniman Butterfly (*Papilio hornimani)* and the more recent addition, the Edward Hart collection of case mounted birds. Set amongst painstakingly detailed natural scenes they provide accurate breeding records and snapshots of what the environment must have looked like 150 years ago. Followed by a tour of the gallery and a discussion involving the challenges of re-interpreting historical galleries we made our way back to the conservation building for a cup of tea. After a quick look in the shop, and a trip back over the river on a blazing hot day, we were in plenty of time to meet up with old with friends at the SPNHC icebreaker back at the Natural History Museum. I hope everyone in the group enjoyed their day.

Many thanks go to Louise Bacon and Lorraine Cornish for organising and coordinating the visit and to all the staff at the Horniman Museum for showing people around.

For further information about the Horniman Museum, Gardens or Collections visit www.horniman.ac.uk

Risk Assessment workshop at the Natural History Museum
- Katherine Andrew

The risk assessment workshop was one of three workshops on offer over the final two days of the conference. Seventeen multinational participants joined Dr Rob Waller of the Canadian Museum of Nature (CMN) on the final Saturday of the meeting for an intensive but most enjoyable day. The group were divided into three teams who for the purposes of the day designated themselves The Pink Ladies (all ladies), The Unreadies and The Specimens.

The first exercise of the day was to identify a range of risks to collections and group the causes into the agents of deterioration, with the tenth agent now re-named the slightly less controversial "Dissassociation" rather than "Custodial Neglect". So no excuse now on coming forward for articles for *Natsca News* on this potentially embarrassing topic.

Groups graded each others identified risks as type 1,2 and 3, ending up with help from the course leader with 24 risk scenarios depending on frequency and degree of damage (some levels of risk are unlikely or impossible, for example, a constant and gradual fire with low level of damage is unlikely). The next step was to assign values to four factors that resulted in a numerical quantification of risk and the potential to rank. The teams then tried the ideas out on groups of real objects in the museum galleries and reported back on their findings, in the process trying to shake off museum visitors who had mistaken us for tour guides.

CMN has carried out this exercise on its own extensive collections with those collections generally most at risk across a range of agents and types identified as the fluid preserved collections. It is interesting to note that Darwin Centre phase 1 started by addressing the fluid collection care issues at the Natural History Museum, although possibly for other reasons rather than as a result of applying this methodology.

The workshop is also run as a two day session. A combination of a slightly faster pace, shorter breaks and the course workbook meant that participants were given the same information but had slightly less time to discuss and digest it. Two participants had attended the course before and were at something of an advantage over others with this head start especially at the stage of the day when we started to quantify risks. For a first timer or a team building exercise, two days would be a better time frame.

This is only the second time that the risk assessment workshop has been run in the UK. It was NSCG (one of the pre-cursor bodies to NatSCA) who commissioned the workshop first in 1995, running it as one of the

sessions at that year's Museums Association Conference. Since 1995, the team at CMN have certainly worked hard to refine and improve the workshop, working on presentation style, timings and incentives. I also came away with some ideas for keeping participants attention during what was an intensive day.

For institutions setting out to plan long term collection care and development, this workshop is an invaluable tool at all stages of project development and implementation, from making the case to ensuring that money is spent where it is needed. It would also be a great vehicle for team building and establishing a cross-disciplinary baseline of understanding. Although developed initially on Natural Science collections, it is applicable and has been used successfully across all museum disciplines. In Britain it can also be used to rank and prioritise the multiplicity of recommendations that an assessment using Benchmarks in Collections Care results in.

This workshop provides the means to turn an instinct into a quantified and ranked argument, it deserves to be presented more often in the UK.

Integrated Pest Management Workshop
- Wendy Atkinson, Assistant Curator, Botany Section, World Museum Liverpool

It was when the Botany collections moved to an off-site store during the building works at Liverpool Museum (now World Museum Liverpool - WML), that I first became involved in our IPM group as the Botany section representative. I wanted to attend the SPNHC IPM workshop as I have not been to anything like this before, what I know about IPM I have picked up along the way from other colleagues. So, this was an opportunity not to be missed for me. I wasn't really sure what to expect from the day, but hoped to hear about other institutions' experiences, their IPM strategies and hopefully get to do some pest identification work.

Of course, the day turned out to be all of that and more. We had quite a programme laid on for us – seven talks were presented in all, covering risk zones, trapping, and different treatment methods, amongst others. There was also a fairly large practical aspect to the workshop too. This took the form of an insect pest identification session and also a gallery assessment. Here are a few of my highlights from the day.

The day began with a talk form Monika Akerlund, entitled ***"Freezing – Standards for Treatment"*** where she described investigating the effectiveness of freezing several different species of insect pest at -20°C when placed inside well-insulated objects. As we had just bought a new freezer at Liverpool, this talk seemed very timely. Three experiments were carried out with insects being placed:
1) Inside a wooden block
2) In a package of woollen blankets at depths of 2, 4, 8 and 16cms from the surface
3) Inside a wooden block, wrapped in woollen blankets

It was interesting to note that in experiment 2, the temperature stabilized after 30hrs at -16°C, even after five weeks of freezing, and the temperature under the package reached only -8°C. Placing the package onto a 6cm high wooden frame, which allowed the air to circulate, alleviated this.

In her conclusion, it was stated "*larvae and adults of selected museum pests are killed after exposure to -20°C for 72 hours, provided that adequate air circulation is ensured during freezing*". It was pointed out that the RH didn't go over 35% and that maybe an increase in RH would have had an effect on the freezing times. Also, the insects used had been laboratory bred and this may have had an effect on the freezing times. *Stegobium paniceum* –the Biscuit or Herbarium beetle, (one I'm obviously interested in) had not been used in these experiments, so later I asked about freezing times for them. Dave Pinniger advised me to carry on freezing at
-20°C for a week to kill them all off.

The next talk, entitled ***"Thermo Lignum controlled heat treatment"*** proved very interesting. This high temperature regime for pest eradication was new to me. Like many, I presume, I'm definitely more used to low-temperature methods than high ones.
The Thermo Lignum® process works on the basis of maintaining RH within a pre-set narrow limit of ± 5% as the temperature rises. A surrogate object such as a block of wood, which has a density closely matching that of the objects under treatment, is placed in the treatment chamber. This avoids the need for invasive