

Editorial

Having not had contact with the membership since our conference and AGM in Manchester in May, let me welcome you all to the inaugural issue of 'NatSCA News', the newsletter for the Natural Sciences Collections Association. Although the format is new, it is still the place for all your thoughts, discussions, questions and complaints, so send them in.

We will be reviewing conferences, announcing meetings and events and looking forward to publishing your reports and papers. Please note the new 'letters' section – write in with your views on any collections / conservation-related subject, and we will use it to flag up the issue and to initiate discussion on the subject. Do you know of any collections at risk? Are you organising a meeting or event?

Keep watching this space for the website, and peer-reviewed papers, so you can send your longer items to us. Also, news on next year's conference and AGM in Dublin. Do you want to stand for committee?

A quick note on the conference and final merger—On the whole I think it was one of the more successful meetings that I have been to – on the merger side, we all felt satisfied at the prospect of a long job finished well. Practically we felt encouraged by the knowledge that whatever problem we had come up against in our collections or changing practices and job titles, someone else had been there and was happy to help us out. Now that the merger is finally over, let's draw on the strengths of having curators and conservators together, and really get our voice heard.

A quick snippet of good news from the museum world—Estelle Morris announces that DCMS is to double its annual contribution to the Wolfson Museum and Gallery Improvement Fund to £2m. This will largely be spent on improving galleries and improving access. Remember, according to the Disability Discrimination Act (1995), from October 2004 service providers may have to make reasonable adjustments to the physical features of their premises to overcome physical barriers to access. Are you prepared?

And on a lighter note...remember, it's probably time to switch over to your winter schedule of pest monitoring.

- Victoria Noble

Contributions for Issue 2, February 2004

All articles, letters, news, adverts and other items for inclusion for the next issue of the NatSCA Newsletter should be sent to the address below by January 16th:

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View From The Chair

Welcome to the first edition of NatSCA News, the newsletter of the newly formed Natural Sciences Collections Association. The merger of the Biology Curators Group and Natural Sciences Conservation Organisation has proceeded very smoothly and your committee have been able to progress a great deal of work in taking the new organisation forward. However, may I apologise for there not being any communication to you since the AGM in Manchester as we have all been very busy establishing NatSCA. Ex BCG and NSCG committee members have happily joined forces on the new NatSCA Committee and have been busy in completing the charitable and legal business involved with the merger. We thank Kate Andrew, Maggie Reilly and Howard Mendel for all their hard work.

This is the first of our 'NatSCA News' letters, which will be the vehicle for advertising and reviewing conferences and seminars, airing your views and for inseminating all manner of other museological news relevant to Natural Sciences Collections. This is your Newsletter, so please read it and send for publishing, your letters, views, reports and small papers within it! We hope to start a peer-reviewed journal soon, which will be the vehicle for publishing larger papers. Not only has Editor Vicki Noble done sterling work to develop 'NatSCA News' but we are also working toward setting up a NatSCA web site. We are sending copies of NatSCA News to paid-up NatSCA members as well as all other BCG and NSCG members of 2002-03 as a reminder that the two organisations have merged and are up and running.

NatSCA is The Nation's organisation for representing Natural Science Collections and associated museum staff and for communicating all relevant developments and news pertaining to our cause. We will soon be announcing next year's conference and AGM to be held in Dublin and a series of working seminars on topical subjects. Do not forget that we will be holding elections for NatSCA committee in Dublin so if you feel motivated then start thinking about what you could usefully do for NatSCA.

The constitution for the new organisation, which all of you have hopefully seen, is a very dry legal document that sets out our responsibilities as a charity. In the next issue of NatSCA News we will be bringing you details of the forward plan and vision for the new organisation. This will be a more challenging and vital document that sets out clearly what you can expect from NatSCA, where we are going and how we aim to achieve this. One of the key aims of NatSCA will be that of advocacy. For too long now natural history collections have been seen by many as Cinderella collections of museums and are not afforded the level of care or the profile they warrant or deserve. One of the key aims of NatSCA therefore must be to raise the profile of not only the collections but also the profession as a whole, and to be a strong voice for curators, conservators, researchers, educators, interpreters and all those involved in caring for and using natural science collections. Big words perhaps, but we will back them up with big actions.

In the meantime enjoy the first edition of NatSCA News and please let us have any comments or suggestions on how we can take NatSCA forwards.

- Nick Gordon

Letters

Carry on Collector?

Dear Editor,

No one can doubt the BCG's commitment to the well-being of our natural history collections and the invaluable role that it has played over the past 20 or so years. However, having read the new constitution (Biology Curator, October 2002) I wonder if the BCG is not in danger of losing the plot.

The natural sciences in museums are running at a low ebb. The Museums Journal appears to be full of disposal and closure and the museum natural scientist is almost a dying breed. Good things are happening but it strikes me that the natural sciences have virtually no profile, and it is not just the awareness of the public that is an issue it is also the awareness of our colleagues.

Object 2 of the new constitution includes five phrases to describe activities associated with collection care. One, 'interpretation,' to describe activities associated with public access. Similarly 'for the benefit of the public at large' is rather passive in tone and suggests a degree of uncertainty as to how these collections might be used and what their use might achieve. Are social inclusion and lifelong learning, outreach, engagement and participation too difficult for natural science collections and their curators? There are lots of examples around the country that indicate they are not, but is the BCG planning to reflect this or preferably jump up and down about it? Clearly not, otherwise how could the new organisation contemplate calling its publication *The Natural Sciences Collector*.

The BCG should look again at its priorities. The most effective way of ensuring the survival of our natural science collections is to make sure that everyone is talking about them (including our colleagues). And this means high profile, quality projects entailing intellectual and physical access.

As Simon Knell suggested at the Scarborough AGM, the BCG needs to do for the natural sciences what Engage is doing for the arts; access delivered through high profile patrons, partnerships, paid posts, fundraising, and national initiatives. Would it be so difficult? Scarborough Museums & Gallery's

Yorkshire Dinosaur Coast project is all about access (to our natural heritage - collections and sites), profile and partnership and includes 3 HLF funded posts. It is an example of what could be achieved nationally for our natural science collections with leadership from the BCG.

Jane Mee

*Museums & Gallery Officer,
Scarborough Museums & Gallery*

Registration Guidelines

Dear Editor,

I have recently been preparing a brief response to the Registration Phase III draft guidelines on behalf of NatSCA, and I am interested to know what other people think.

Here are a couple of things to consider.

I am bothered by the situation with regard to the Nationals. For example, Appendix 3, Section 4 states " **Resource believes that the public has the right to expect more than minimum standards of a museum making a claim to be "national"**. To be eligible for Registration, therefore, a museum wishing to use the word "national" or equivalent must, in **addition** to meeting all the other requirements of the Registration Scheme, also meet the following criteria:" The following sections then define these criteria.

However, section one states "This section (*i.e. appendix 3* (my comment)) does not relate to museums which are "national" by virtue of a status conferred through legislation and are directly funded by government." Why?

The National Museums are, almost by definition, benchmark institutions. Furthermore, they are museums of international standing and unparalleled importance within their fields, and they are paid for out of the public purse. While I can hardly blame the NHM for not volunteering to take on what would be an almighty task, it seems to me that, far from being exempt from the standards set for the rest of us, they should be striving to meet the highest standards of all.

I suspect one of the reasons for their exemption is an assumption that the task would be impossible, and therefore there is no point in imposing it on them. I think this reflects a wider and more fundamental problem within the museums community, that being a crisis of confidence in the profession.

As was suggested at the NatSCA conference in Manchester, we often have a generally negative self-image, both inside and outside the profession. Resources are not made available because the collections are not seen to be worth it. Museums often don't bid for resources because they don't believe they will be successful, and why bother wasting your time when there's so much else to do.

However, I think we should be seeking to tackle this problem rather than submitting to it. I believe and hope that NatSCA has taken on board, as part of its fresh start, this need. With regards to Registration, I think it could be more than simply a pragmatic standards process. I believe it could have an aspirational outlook, and be part of the drive to raise the profile and re-establish the value of our museums and collections. This is a task that we need to embrace as a community-wide, patient, long term and cooperative effort to raise the profile and confirm the value of museums and their collections. And we mustn't give up as soon as some things don't work.

Steve Thompson
Keeper of Natural History, Scunthorpe Museum

Book Notice

ENHSIN the European Natural History Specimen Information Network [volume] edited by Malcolm J. Scoble. The Natural History Museum, London. 2003. pp176.

Copies will be made available for free at future NatSCA seminars and conferences. Do not approach the NHM directly.

During the past decade, many museum and herbarium holdings of natural history specimens and their associated collection information (locality and date of capture, collector, host/substrate etc) have been databased using a great many systems and languages. Development of frameworks to connect global species databases (Species 2000) and to im-

prove access to European natural history collections (BioCISE) has already occurred.

ENHSIN is a Thematic Network and was funded through the European Commission's Improving Human Potential Programme in Framework Programme 5. Its primary purpose was to create a demonstrator computerised network of specimen databases and provide users with a common access system to the information. The network also addressed issues of different technologies, languages, data standards and copyright / intellectual property. The contributing Institutions were The Natural History Museum, London; The Royal Botanic Gardens, Kew; Museo Nacional de Ciencias Naturales, Madrid; Botanischer Garten und Botanisches Museum, Berlin; Muséum National d'Histoire Naturelle, Paris; The Zoological Museum, University of Amsterdam; and The Zoological Museum, University of Copenhagen.

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Paul A. Brown
Secretary NatSCA, The Natural History Museum

Papers Given at the
2003 AGM at Manchester Museum

***“No Pain, No Gain?
Renaissance & Removals”***
7 — 8 April 2003

Changes in Conservation - Experiences at Manchester & Within The UK
Velson Horie, Keeper of Conservation, Manchester Museum

I was pleased to be the first speaker to congratulate NatSCA on its birth. I was present in the early days of NSCG. Rebirthing is a fashionable way to ease transition through change.

It is not a coincidence that many organisations are going through major transformations. The aftershocks of the changes initiated by Mrs. Thatcher are shaking existing relationships and structures. You may have heard that the University of Manchester and UMIST are due to merge because each on its own is too small to compete with the big players of the international university league. Small is no longer beautiful. Small means that you do not have expertise in depth or spare resources to take major risks. Big means that you have robust structures and solidity in place that government and business understands. Small means that you are likely to decline or be gobbled up.

Getting our standards right

Special interest conservation organisations proliferated in recent decades. An increase in expertise produces specialists who band together in specialist bodies. These were kept separate by the need to have the boundaries acknowledged, fig.1. All sorts of boundaries were drawn: between types of object worked on (furniture vs. paper); approach to the object (care of collection vs. treatment); national boundary (UK vs. national). The specialised group can be rewarding, giving mutual support, easy interaction and rapid development of one's competence. Unfortunately, it can also become inward looking and cut off from outside influences.

The rise in expertise leads to a rise in standards. Not so long ago, identifying practitioners with high standards was easy. You asked around a few colleagues and one or two names would emerge. This does not work any more. First because the field is bigger and there are many more good people around who may not be known by the colleagues you asked. Second at least in the public sector, the processes of selection must be open, transparent and auditable. Word of mouth does not count.

So accreditation was born, initially to ensure that every member of the club was up to speed and could be trusted by the peer group. Now, accreditation is widely used externally as a quality check by the public on the competence of practitioners. At that point, the public start asking what the accreditation is worth. In many fields, accreditation has become a necessary entry ticket to employment. So the practitioners start asking if it is worth the entry price.

Accreditation done properly isn't cheap, fig. 2. To achieve this requires resources, partly money but mostly a self-sustaining group of able people with time on their hands, committed to raising standards.

That brings us back to conservation. Within NCCR, there are 6 bodies with accreditation schemes: BAPCR, BAFRA, BHI and UKIC/IPC/SoA. The amount of duplication of effort is enormous. It costs money and the number of people willing and able to do the job is small. The contingency costs of running parallel schemes are significant. It sucks up the energies of activists and focuses them inward. It reduces the flexibility of organisations to respond to outside events. Some bodies such as SSCR decided not to participate because of the potential distortion of their aims.

This is recognised and a Common Accreditation Framework is being developed to subsume all the schemes. Its implementation will make it much easier for the public and commissioning bodies to define what a competent conservator-restorer is. The acceptance of a professional status in conservation is one of the major changes in recent years.

Looking outwards

There is a common theme across all the papers. There is a real tension between the need to make any organisation operate cost-effectively internally and the increasing external demands on the organisation to be responsive.

If Resource or the Scottish Assembly or the BBC or the owner of a broken teapot wants to find a conservator for a fast response, where do they look? At the moment, there is no authoritative source of information. How should the heritage sector respond to government initiatives? The clever bit of lobbying is to ensure that conservation is sufficiently trusted for its suggestions are used as a basis for initiatives. We have seen that trend in education in museums. Reports from museums have inspired the museum community and government to make a significant shift in emphasis on the role of museums towards education and access.

At the moment the conservation organisations in the UK respond to their members reasonably well. But relations with the outside world are dysfunctional. No one can get a coherent answer.

The Conservation Forum, now NCCR, was created in 1994 to tackle these problems. But the world has changed faster than the conservation community. So now we have to play catch-up again.

A year ago, NCCR decided to look at methods to form a new single unified body to represent conservation interests. NCCR is now made up of 12 bodies with a common purpose to move towards a unified body.

After much discussion, it has been agreed to merge a number of organisations to form a new one with the following aims. What follows is work in progress. The strategy is clear but the details of implementation are still being worked out.

New single unified body for conservation-restoration

- ! To promote the care, understanding and enjoyment of the heritage.
- ! To set the standards required for conservation-restoration.
- ! To provide a unified voice for the conservation-restoration profession.
- ! To respond to the needs of the public, clients and other stakeholders.
- ! To respond to the needs of our members and related professionals

It intends to be recognised as the leader in the sector, independent in promoting all aspects of conservation-restoration of the moveable heritage. In the longer term, it hopes to receive chartered status.

In order to remove layers of bureaucracy, the new body will be a membership body composed of the current members of existing NCCR organisations. It will continue to provide comparable services to its members such as conferences, publications, special interest groups etc. There are many economies of scale. Discussions are underway to merge the peer review publications of UKIC and IPC in the coming months, perhaps leading to a joint journal issue from next year. There will be more effective membership services available such as subscriptions and accreditation and office backup will be much more efficient. Coordinated fund-raising and marketing will also start.

All this efficiency will free up resources to look outwards, to lobby effectively, to take (not just respond to) initiatives. We have seen how much more effective the Museums Association has become by concentrating on its core activities and putting effort into the public debate.

When - How will this happen?

With a following wind, the new organisation will be created in September 2004. It takes time to get the Charity Commissioners, AGMs, EGMs etc lined up. The process of convergence is costly in time of the leaders of the organisation. It has been estimated that their contribution to date is equivalent to £150,000. In addition, the financial costs of changing membership structures, such as getting lawyers to rejig the constitutions, have to be borne. The pace of convergence is determined in part by the limited resources available.

During the transition period, subscriptions will be at a level to achieve the same level of income from each member on average for the organisation as in the previous bodies. Membership services will continue at a similar level.

Different bodies are at different stages of convergence, which will not happen all at once. At present, four bodies are in a position to commit themselves to merging. Some bodies are slowly coming round to the idea. Some have particular difficulties - such as the Irish bodies that will need special solutions.

The hybrid bodies such as the Society of Archivists and NatSCA are currently constituent bodies of NCCR and their role in the new organisation is under discussion. A model that seems to work well is the Museums Association. The MA manages the professional services and umbrella lobbying for the museums field, while bodies such as Gem and NatSCA deal with special interest activities and act as expert witnesses to the MA. It is usual to have two memberships, one of the specialist group covering the area of particular interest, and one of the MA, which provides the professional and external services.

About half the members of NCCR bodies are in the private sector. An important but difficult to get at sector is the private clients. A larger organisation will be able to target and have clout with these clients.

The future

UK conservation practitioners are widely respected in Europe and the rest of the world, but for years, our lack of a coherent professional structure prevented us from taking part in the European initiatives such as ECCO. Now Ylva Player-Dansjo of the SSCR is President of ECCO. We look forward to shifting the emphasis away from the Napoleonic model. This is all part of looking outwards and engaging in wider issues.

When all the conservators have joined the new organisation, there will be ca 4,000 members. Although a considerable achievement, this is still small beer as a lobbying group. The need to build partnerships and alliances will grow because other bodies in society are also getting better at influencing the public and politicians. There will have to be greater integration between the organisations representing conservation and rest of the heritage world.

The purpose of the new organisation is to make conservation count. We need your support in making this happen.

'Decant, Recant, Decant': A Moving Experience

Donna Young, Collections Manager, Botany Department, Liverpool Museum

In 1998 a presentation was given at the NSCG AGM showing plans for new storage facilities for the Botanical collections at Liverpool Museum. National Museums & Galleries on Merseyside (now *National Museums Liverpool*) had heard the same year that their HLF bid had been successful. Having worked through ideas for new gallery spaces, plans were well under way for designing the new collection stores. By that time all the specifications had been drawn up and tenders were in. The purpose of the presentation given at the inaugural NatSCA 2003 meeting was to bring delegates up to date.

I chose not to discuss the tenders, contractors, and fitting out details, but to concentrate on the area of the project I was most closely involved in, that being the movement of the collections. It concerned me that from the outset this may have appeared to be the story about a lottery winner and their problems. As I'd been putting the talk together it was impossible not to think of those sob stories about lottery winners, whose lives have been made miserable by their big win. They tend not to evoke much sympathy. We are all only too aware of the financial uncertainties that museums face. It was with a certain amount of trepidation that I described this particular story of what happens when a museum is granted a large sum of money. However, this was no 'sob story', but rather an account of a unique experience and the challenges it provoked.

Back in 1999 it was envisaged that the Natural History collections would have to be moved temporarily for an approximate period of six months, possibly even one

year. The collections were to be moved from an area called the 'Upper-Horseshoe' at the museum. Originally this was used as a gallery before it was firebombed in WWII. The HLF grant was to enable this area to be turned back into galleries again. Therefore the collections would have to be stored elsewhere. The natural science collections at Liverpool amount to approximately 1.2 million specimens. Along with these are their associated libraries, containing around ten thousand volumes and about one hundred separate archive collections. The option to keep the collections on-site was considered, as this would have been a cheaper option than an off-site move. However, with a collection this size this would have meant too many restrictions to the contractors. We had to demonstrate to the HLF that the collections safety was of paramount importance. The risk of damage from dust, vibration and changing environmental conditions were considered too high.



old collections storage & office space

As well as new galleries, the HLF bid also facilitated the acquisition of the adjoining building to the museum, previously used by the University. Our new collection stores and curatorial offices were to be created there and the work on this area was to run parallel to the gallery fit-out and build, therefore it was decided to move off-site during this period. Various premises were considered for the temporary store and eventually a number of units on a new industrial estate were found in Bootle, four miles north of the city centre. The Maritime Enterprise Park (MEP) units were not designed or equipped to hold collections, but there were many things in their favour. Each unit was around 400 sq. metres, the largest being 750 sq. metres. It would mean we would be able to keep all the Natural Sciences collections together on one site. The accessibility to the units was very good. Roller shutters were fitted on the front of each unit for vehicle access. As well as moving the collections in, this was also good for evacuation of collections if necessary. There were also large car park facilities for staff and the manoeuvre of large vehicles. All the units were on ground level and easy road access to Liverpool existed for the transportation of collections. 24-hour security existed, plus police approval had been given for low insurance purposes. Despite this not being entirely

relevant due to our 'national indemnity', it was reassuring to know that this level existed. The units were of modern design and construction and only 18 months old. Facilities such as toilets, washrooms, phone & electrical points were already in place. We were to be the first tenants, so there was no previous tenant 'baggage' to contend with. An open plan office area was on site. It could house a number of staff, as well as accommodating staff room and kitchen facilities, a meeting room, act as the central administrative point of the site, and hold the Liverpool Keeper's office. Most importantly for us, we were able to adapt the units for our own use, within the landlord's reason and a 'making good' dilapidation's agreement was drawn up.

The tenancy began in July 1999, and immediately work commenced on the construction and design adaptations we wanted. Internal links between some of the units were put in, and in one area this included a double door vestibule to maintain environmental conditions within each area. We also had additional smoke alarms fitted, along with extra electric sockets including computer network points. In the central office accommodation our IT department installed an independent server to connect all our pc's with each other and hourly back to the main NMGM sites in town. Though the security was already relatively high for this type of commercial unit, extra locks and doors chains were fitted to protect not only the collections but for staff welfare and reassurance. The units were already equipped with 'breaker alarms' and an additional infrared passive alarm system was added. All the units were linked back to a central control unit on 24 hour call out.

Environmental modifications were also carried out. Gas heaters already existed that were brand new. Our Conservation Science department looked at the various requirements of each unit and the individual units were then modified dependant upon their contents. For example, the Geology unit was fitted with additional humidification/dehumidification units ('humdehums'). These allowed a stable relative humidity to be maintained at the same time as comfortable heating levels. The heaters in the Botany & Zoology stores were fitted with humidistats to provide 'Conservation heating' and the Zoology offices had 'comfort heating'. Conservation heating provides relatively stable RH in the winter by allowing the temperature to drop to prevent the very dry conditions associated with heated buildings at that time of year. It does however result in low temperatures, which can be uncomfortable to work in, and there are occasions in the summer, on warm humid days, when the RH can be high for short periods of time. The assessment regarding the grading of the heaters was made with the original expected length of occupancy in consideration. Had we known then that the collections would have been there for nearly three years, 'humdehums' would most likely have been placed in all the stores. Sensors controlled the humidistats and the humdehums units in a Hanwell radiotelemetric system. The system also monitored the rh and temperature, and the data was accessed via modem and stored centrally back in the city at the Conservation Centre. This system was already in place for monitoring conditions at other NMGM sites. The expanse of the ceilings in the units was covered in skylights; these were painted over to reduce the problem of solar gain. The new bare breezeblock walls and concrete floor were fairly dusty. The floors had already been coated in a sealing substance. We had both the walls and the floor commercially cleaned. During this time, staff back at the museum were preparing for the collection move. General curatorial business was reduced down, e.g. loans and enquires, and the pre-packing clear out and sort out of offices began.

The Botany collection at Liverpool is made up of various components, including timber samples, economic botany items, botanical prints & drawings, archives and photographs. The non-herbarium specimens were already housed in a compactor unit. This was dismantled and re-constructed as a static unit up at MEP. Our main collection is the herbarium, which we housed in a number of wooden and metal cabinets stacked on top of each other. This amounted to over 300,000 specimens. It was decided not to unpack the cabinets themselves but to use them to transport the collection en-mass within. Before the removal contractors came in individual pigeonholes were padded out with bubble wrap, the cabinets sealed and numbered. When the metal cabinets were put out up at MEP, they were arranged in the wrong order. This was due to a number of reasons, including tight deadlines and limited staff supervision. It was this 're-installation' that had a major impact on later activities, when preparing for the move back.

By October 1999 all the natural science collection and staff were off-site, and expected to move back to the museum *at least* within the year. As a consequence of staff changes and shortages within the Botany de-

partment during this time, the supervision of this part of the project was limited. Instead of using the initial period of occupation as an opportunity to re-organise the cabinets, and therefore prepare for the subsequent move back, staff were directed onto other projects. These included the mounting and laying away of a large herbarium acquisition.

In October 2000, a year on from the move out of Liverpool Museum, the collections were still based up at the MEP site at Bootle. Delays in building work back at the museum were having a knock-on effect upon the original proposed schedule. These delays were a result of a number of things including, the discovery of previously unknown asbestos and problems with the steel fabrication of the building. Every component of the move back into the museum depended upon each other. Schedules were drawn up and modified periodically to indicate this. Up at the MEP site, the collections were still laid out in the industrial unit. We were given a new moving back date of February 2001. This gave us now only four months to get the collections prepared. The Conservation division had decided upon the desired method for ensuring the collections were in a sterile state before recant. There had been a history of minor pest infestations in our collections prior to our move to MEP, notably *Anthrenus* and *Stegobium*. A close monitoring programme of all the natural history collections, using sticky traps was maintained during our stay at MEP. Though no damage was incurred, traps were found occasionally to hold the odd biscuit beetle and psocid. Different methods of de-infestation were considered, including fumigation and atmospheric gas treatments (*CO₂* and *nitrogen*), but a combination of cost, practicalities and health & safety issues determined the choice of 'freezing' as the best option. The Conservation Centre was designed with a purpose-built cold room for the freezing treatment of pest infestations. However, because of the size of the cold-room in relation to the collections at risk, it would only be possible to treat a small percentage of the collections there. It was decided to hire an industrial freezer trailer. TIP trailer Rental Company, in Manchester, could rent us a 40-ft unit.

We estimated that the botany collections alone would need 200 pallets when packed. We wouldn't be able to pack the pallets on top of each other within the trailer, so freezing 26 pallets at a time, would take the whole process eight weeks. This was calculated on a weekly cycle of loading/or unloading, two days to get down to temperature, three days at that temperature, switch off, and two days to get back up again. Added on to this eight weeks were the vertebrate and invertebrate zoology collection freeze. We estimated, that the whole process would take around 16 weeks to complete. Normally these freezer trailers are powered during transit or outside in industrial holdings. However, because of the proposed contents, they would have to be kept inside. The engines run on either diesel, which was considered too dangerous to be used around the collections, or electricity. For the latter, the trailer would need a three-phase electrical supply and so the unit's electrics were adapted for this. Having already used all the available floor space in our unit, we had the problem of how to accommodate a 40ft trailer. We'd have to clear a space, not only big enough for the trailer, but also for manoeuvring space of a forklift truck.

Temporary 'work-stations' and the library were packed up first; they were nearest the stuttered entrance. Then the packed up crates were put onto pallets so they could be easily moved. With no available floor space it was decided, the only way was up! The units had a ceiling height of 19-ft. Conveniently for us, nearby was 'Crosby Plant Hire', a scaffolding/racking company. They said they were able to 'hire' and assemble second-hand racking for us. More importantly, they were prepared to do this with short notice. In the end we actually purchased these, as it was more cost effective. We couldn't put racking up in our cleared space; that was for the freezer trailer, so we had to consider what was movable in the units. At this point our collection was housed in a mixture of wooden and metal cabinets. The new Botany store back at the museum was to be made up of a combination of new metal cabinets, made by *Lista*, and our existing metal ones mounted together onto a mobile compactor base. *Lista* would need our old cabinets empty for re-assembly on the new bases up at the museum. It made sense to start emptying these ones first, move the cabinets out and place the boxed up specimens onto pallets. Then the first run of the industrial racking could be erected and the first pallets cleared. It was imperative that the individual pallets and contents of boxes within were packed in the order they would be unloaded back at the museum. The systematic sequence of the herbarium folders had to be maintained. Once the pallets had been sealed in polythene and

frozen they could not be opened again, so it was important that this was achieved at this stage.

We worked out we could put 35 boxes onto each pallet, which came to approximately one metre high. Higher than this, and the bottom layer of cardboard boxes would have suffered under the weight. Unfortunately each cabinet didn't conveniently dispense onto one pallet. A pallet held approximately 2.3 cabinet contents. A 'run' of racking could not be erected when a number of adjacent cabinets had been all emptied. As mentioned previously, the cabinets were in the wrong layout so therefore these '2.3' weren't always situated near each other. Deciding which cabinet to unpack first, taking into account its accessibility within the unit was a major logistics challenge. After reckoning the options, a 'moving' pattern and subsequent plan emerged. We used a simple form to show the contents of each pallet; this satisfied both audit purposes and kept track of the systematic orders. This was duplicated with one copy attached to the pallet.

The 'clearing' of floor space involved preparing the pallet, unpacking the contents, packing the contents, wrapping the pallet, moving the cabinet, moving the pallet, and then erecting 19ft high racking. This was all within the limited space of one metre wide corridors.



boxes used to store / transport historic material

The packing process itself involved covering each wooden pallet with a protective sheet of cellair™. On top of this we laid a four by two metre sheet of heavy gauge polythene. The folders were then removed from the cabinets and laid on top of a long sheet of strong brown 'kraft' paper. This strip was then used to manoeuvre the bundle of folders into the cardboard box. The strip remained in place, packed into the box, so that the folders could be carefully lifted out when we were back at the museum. Manchester Museum kindly loaned us two hundred of their purpose made 'Solander' herbarium boxes. We used these to store our historically important collections. Eventually, sufficient space was cleared and the first run of racking erected. The full racking was actually erected in five different stages as each space and its contents were raised.

Our existing compactor unit had posed a couple of problems. The drawers were removed from the unit carcass, but as they didn't naturally lie evenly when stacked upon one another without the runners in place, we had to place two wooden batons upon each drawer. Then pieces of card were placed on top of these to cushion the next layer. Sequential drawers were laid in alternate directions to provide stability. It was only safe to do this six drawers high, and as the drawers only measured approximately 65 by 65 cm, a lot of space would be wasted on a standard 1 by 1.2 metre pallet. The metal drawers were going to fill 86 pallets alone, and we were already running out of vertical space. Therefore, we had to order non-standard pallets of a smaller size to accommodate more. The pallets of these drawers were packed in the new order in which in which they were to be housed back at the museum. The original unit was going to be reassembled differently to accommodate a newly purchased extension carcass. Therefore, the order which the pallets were packed had to be carefully planned as this differed from the original layout.

Part of the collection was housed in wooden cabinets. There was no floor or ceiling space left to hold the contents of these. We planned to dispose of these cabinets after the move back, so the collections remained inside and the cabinets sealed, placed on a pallet and frozen.

Each section of the collection, e.g. 'European herbarium', was given a unique code. Documentation was kept to show the break down of the individual pallets and their subsequent boxes/units were counted. This not only satisfied audit purposes, but also enabled us to calculate an estimate for manpower and time it would need to decant the collections on our return. Up until that point, numbers of pallets and the time taken to pack or unpack them were vague estimates. Effectively, the whole 're-packing' experience had provided us with a very intense 'time and motion study' from which the final move back could be planned

for more accurately.

With the collections packed and sealed we were ready for what we now refer to as 'the Big Freeze', but we still had 97 empty metal cabinets to move from the area where the trailer would stand. Delays in the laying of the new floor back at the museum meant that *Lista* couldn't receive the metal cabinets, or the carcass of the metal drawer unit. With nowhere else to store them, we had these items taken by a removal company and put into rented deep storage. By the time they were ready for them, this cost alone mounted to £4,500.

The freezer arrived in March 2001. This was already past our due date for return, but this was just as well as that date had slipped also. Our next return time was given as June. The entrance to the unit had been measured, and on paper it would take the trailer. But when it arrived we were alarmed to find it wouldn't fit through the shuttered entrance. Firstly, air was let out of the tyres to lower the height of the trailer slightly. Guiding it in by driving the vehicle was proving difficult with the front cabin attached. After the kind assistance of fork-lift truck drivers from a neighbouring unit, who must have been pretty amused at our plight, the trailer alone was guided slowly through into the unit. A risk assessment was carried out and health and safety procedures put into place. These included the provision of safety clothing; steel cap shoes, fluorescent jackets and hard-hats for wearing when working around the forklift truck. Various signage was employed; notices were changed on the outside of the trailer to indicate current activity, for example if someone was inside! Staff were also given emergency equipment such as a mobile phone and torch for when entering the freezer (in case someone hadn't noticed the sign and done the unthinkable!)

The freezer was fitted with a thermometer, which could give daily printouts of the temperature, measured at 30-minute intervals. Having loaded the first consignment of pallets, we noticed it was taking longer than we had anticipated getting the contents down to -25 degrees. Radio telemetric thermometers had been placed within the pallets and after four days these were still not showing as low a temperature as the trailer's inbuilt one. Obviously this was due to the density of the material and it was decided we would have to leave the freezer switched on for longer. Normally these freezers are unloaded and loaded whilst the freezer is on, as perishable goods need to be kept frozen. We would also need to add the extra days required for temperature to come back up so the specimens could be moved safely. Therefore we had to alter our original time plan of a nice weekly cycle. In the end each freeze cycle lasted ten, or twelve days, depending on when the weekend fell. This all fell around the Easter holiday period so staffing had to be carefully arranged, especially as only two NMGM staff were trained in forklift truck driving.

With the racking space limited, there was always at least one consignment of pallets 'over'. This would be eventually 'housed' in the vacant floor space available after the trailer had left. To keep the aisles as free as possible for the manoeuvring of the forklift truck, the location of the pallets differed each time a consignment was put into the freezer. A weekly update of the pallet location was kept on forms showing the individual front view of each face of racking. Pallets holding high priority items were always kept at ground level for ease of evacuation.

By mid June the Botany freeze was complete. Shortly before this we had heard of another put back in the return date to the museum but by now staff were getting quite used to this. Now we had a different problem. With the collections frozen and packed we had to re-assess the staff work program. We decided to keep out from the end of the freeze a number of old cabinets that were holding our 'unincorporated collections'. Over a period of around forty years, this had amounted to approximately 28,000 specimens. The contents of the cabinets would have to be removed, as the cabinets themselves were to be disposed of. We used the delay in the decant as an opportunity to do an inventory of this collection. There wouldn't be the time to do this in detail, but we could at least do a basic break down of what was actually there. Prior to this exercise we had no idea exactly how large the collection was. A simple form was used that could be placed onto each bundle as they were numbered. A duplicate of this was kept so the information could be entered onto a computerised database at a later date. With an assessment of bundles on the database, we can now do useful calculations such as how much is in need of mounting, how much is unlabelled, where there gaps in accessioning details, and which parts of the collection are they from. The same brown paper

strips, as used in the packing boxes, were used to hold these bundles, which were made no bigger than the new pigeon-holes they were going to go into back at the museum. This meant they could remain as bundled 'units' on their return. In the future when we have the opportunity to work on parts of this collection, individual bundles can be 'cherry picked' as appropriate. The Conservation Centre cold room was used to freeze this collection.

In Christmas 2001 we planned for the imminent move back in the New Year. As we had been told to pack away computers and other office belongings, we actually believed this time we would be going! During the temporary re-location the Botany section consisted of at most three members of staff, but in the main one full-time curator and one part-time collections manager. With Leander, our new Head of Botany, in post, and seconded assistance from the Collections Access department, we felt prepared for the task ahead.



frozen collections, waiting to be moved back

The company used to transport and assist with the final decant back into Liverpool Museum was Harrow Green. Along with the physical move of the pallets/ furniture etc, they provided the additional resources of two members of staff on a daily basis to assist with the unpacking. These were given manual handling of collections training and were very efficient. We felt it was imperative that curatorial involvement/supervision was available at all times to reduce the risk of collections being housed out of systematic sequence. Deliveries were made on alternate days, so that each consignment could be unpacked and cleared to make floor space for the next pallets. The actual move back of the botany collections took 43 working days. Each day was planned out, with someone responsible for i) overseeing the loading of the van, ii) escorting the vans in transit by following in a vehicle behind (with consignment documentation and the key for the trailer), and iii) maintaining documentation and communication



Herbarium in new compactorised storage

with our security staff and Registrar. With all the preparation work done and paperwork in place, the final decant went as smooth as clockwork.

In conclusion what advice could we give to others who may be about to embark on something like this? I don't think it matters how big the operation is. Some may consider ours large, but it's all quite minor compared to the Darwin Project. It's not always possible to prepare for the unexpected and obviously planning is important, but one has to be flexible and adaptable to change. When things don't go to plan, have contingency activities in place. We turned our delay and inaccessibility to the main part of our collection to our advantage. Our unincorporated collection would have been returned back to the museum and most likely have sat, in the main, in the same condition as it has for forty years. Expect the costs to be higher! Rent, rates, security and cleaning added up to approximately £15,000 a month for the whole site. The Botany unit alone cost £2000 a month in rental fees. From moving there in July 1999, to nearly three years later in spring of 2002, the costs of MEP had reached over half a million pounds. Lastly, we would recommend a good sense of humour (!) and recognise the importance of good teamwork. It's difficult to put into words the 'high' and sense of achievement we all felt seeing our collections back at the museum and accessible once again.

Building & Relocating A National Museum

Jan van Tol, Entomology, National Museum of Natural History, Leiden

Apart from your birth, moving your home is the most traumatic experience in your life. Five years ago, the National Museum of Natural History | Naturalis (Museum Naturalis for short) moved from the centre of the city of Leiden to a semi-industrialized area or bioscience park near Leiden's central railway station. For most curators even the idea of moving their collection is more traumatic than actually moving their home. In this paper I will discuss why and how Museum moved from an early 20th century building where the status of a curator could easily be measured from the size of their office space of 50 square meters, to a state-of-the-art 21st century museum (see picture above) where curators got rooms the size of two cubicles. I will also describe how the political climate was positive to investing approximately 60 million Euro in a new museum, how the museum's profile changed from a scientific institution to a market-oriented organisation, how we organised the preparations and the actual removal, and how we slowly got accustomed to our new home. For many of us it was a traumatic experience indeed, but it appeared to be possible for zoology curators to start a new life among 260,000 visitors per year, and half of their colleagues specialised in public relations, human resource management or electronic games rather than bats, wasps or corals.



The 21st century museum

Historical notes

Museum Naturalis, or Rijksmuseum van Natuurlijke Historie as it was called for more than 175 years, at Leiden, The Netherlands was established in 1820. It has been a research institute rather than a museum at least since the late 1800's. No visitors were invited nor accepted for more than hundred years. The museum focussed on zoology for most of that time, but merged with the National Museum of Geology and Mineralogy in 1986. The museum has no botanical branch; the National Herbarium of the Netherlands is a supra-university institute up to now. The museum now is a quasi-privitized organisation, receiving around 85% of the income from the government, viz. the directorate of cultural heritage.

The Dutch government selected the museum as the organisation for the so-called *National Natural History Presentation* in 1985. This decision started the period with a culture shift from a scientific institution to a more public-oriented museum.

The 1985-1998 period

The museum building was in the Raamsteeg, in the very centre of the city of Leiden since 1820. It was

designed by the director Fredericus Anna Jentink. It clearly showed that curators of natural history collections were important. The museum clearly showed in routing that an expert hand had been involved. It was also built to the state of knowledge of that time in fire prevention. Especially the collection building was also an interesting piece of construction, and we have had many groups of interested architects as visitors.

The task of developing a natural history presentation forced us to find place for extension to house the museum galleries in the immediate vicinity of the building. This appeared to be far from simple. The original plan of the Raamsteeg building from around 1910 included galleries for exhibitions, but they had never been built in a period of economical constraints. The reserved area is a park now, and also not very large, and appeared not suitable for the more visionary plans of the 1980's. A special opportunity seemed to come with the availability of the Pesthuis ("plague house") near the railway station of Leiden, which was offered for the symbolic price of one Dutch guilder. The latest use of the building had been the national army museum, and the building had been completely renovated when it was offered. It was supposed to be large enough for the public galleries. The condition of the building was, however, not appropriate for the display of valuable specimens, since climate control was difficult to install in the old monument. The director of that time, a systematic entomologist himself, hesitated clearly in which direction the museum should develop. The government, on the other side, was much more determined. They insisted that the museum had to build for public galleries, but the museum had to tell where and how.

Only when an interim director with an extensive network of personal connections in the government was appointed in 1990, decisions were made quickly. In just two years time, it was decided that a complete new museum would be built near the Pesthuis in an area that was being developed as a so-called bioscience park. Not only the galleries, but also the collections and offices would have to move to the new premises. In the end, the Pesthuis building would only be used as entrance building. The allocated budget rose from 2 million Euro in the 1980's to 40 million Euro around 1992.

After this hectic period, Wim G. van der Weiden was appointed as new director in 1994. Van der Weiden had been involved in building the museum of education in The Hague before, and he succeeded in obtaining a further 20 million Euro to a total budget of 60 million Euro in 1995. This sum included not only the building, but the preparation of the expositions, and costs of removal of collections and offices. The actual building started in 1996, and the museum was officially opened 7 April 1998.

A new building

I have been involved myself for more than two years as a project manager of one of the new galleries. As one of the curators in entomology moving the collections was also one of my duties.

One of the curators of invertebrates, Jaap van der Land, had produced an impressive brief for the architect. Looking back, from that point on developments were difficult to follow for everyone who was not directly

involved in decision making. This was, among other things, due to the extremely complicated decision making structure. The government acted as principal, funds were provided by a private company from which the museum had to lease the building, the museum was involved as a user of the first 30 years, and also the architect is a major player in developing a new museum building. As a result, space for offices,



20 floors of purpose-built collections' storage

collections, archives and storage appeared to be much smaller than we actually needed. Also, details of the building were changed in such a way that it became less suitable for use by the scientific departments. It may be true that a smaller elevator is more affordable, if you cannot transport the crocodiles of your collection in the smaller one, collection management gets overcomplicated. We also found that floors were so uneven, so that placing cabinets and other storage furniture appeared to be very troublesome.

But also many things changed positively. Firstly, of course, the museum got its impressive galleries for exhibitions. Climate control of the collection building improved very significantly. While we had many problems with the control of humidity and temperature in the Raamsteeg building, the new building is designed for climate control with minimum use of energy. Also, an advanced security system prevents uninvited visitors to enter. The collection tower of 20 floors has no windows, the walls are made of 60 cm concrete, with insulation outside and a characteristic cover of steel. Temperature is controlled mainly by heating or cooling the space between concrete and insulation. There is no water in the collection rooms, making damage by water very unlikely. There are two compartments per floor with a humidity control system, which also controls the flow of fresh air. The system actually works well, and the entrance to the collection rooms certainly has a high-tech image.



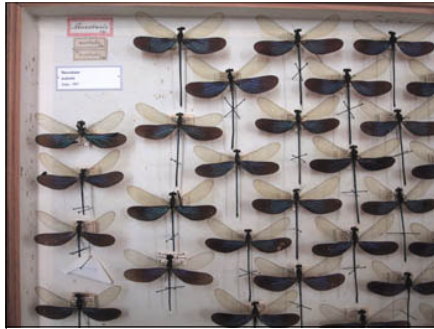
The view from inside the building

Relocating the collection

The collection itself was fully moved by a professional company. An international bid procedure was needed, since it was one of the largest removal operations in the Netherlands for years. A Dutch company, UTS Voerman, showed an impressive selection of innovations , e.g. for moving birds and mammals, which resulted in the lowest quote as well. Preparations for the removal were organised by curators and technicians, assisted by temporary staff. Preparations included: reorganizing the collections, preparing specimens for removal (e.g. fixing abdomens of large insects with insect pins), numbering cabinets or

larger objects and indicate their position in groundplan of the new building. The preparations started around two years before the actual operation of removal started.

The removal of the collection started more than six months after finishing the building activities. There was a good reason for that. It is frequently claimed that concrete is dry after three months or less. However, some curators learned from experiences in other museum buildings just before we moved about severe



Specimens prepared for removal

problems with mould in collections placed in rooms immediately after building activities. With these data the director decided to start the removal only six months after completion of building. The removal itself took more than one year. The speed was relatively low since the new collection tower is suboptimal from a logistic point of view. As I have indicated before, the new building is actually too small for the collection. Non-essential parts of the collections are still housed in the Raamsteeg building.

Conclusions

Five years ago the museum opened for the public. The success of the exhibitions is such that the museum is now widely known in The Netherlands to the general public, but much better known to journalists colleagues in other research institutes than before. It is also true, that the number of hours actually spent by curators on research and related collection management is perhaps 50% of twenty years ago. We did not lose many positions. Although I do consider the number of curators and technical simply insufficient, one has to compare this with other developments. The other large zoological museum in the Netherlands, in Amsterdam, had its staff reduced to perhaps half the size of twenty years. Most universities stopped maintaining their zoological collections, so one may also draw the conclusion that starting a new life in a new building has saved our position. Museum Naturalis is now more complete than it was 25 years ago, where collection management and organisation of exhibitions are both considered as features of a healthy natural history museum.

Squatters and Hitchhikers - keeping pests out of stores

David Pinniger, Consultant Entomologist

The most common pests of natural history collections are: carpet beetles, *Anthrenus* and *Attagenus*; clothes moths, *Tinea* and *Tineola*; and spider beetles *Ptinus* and *Niptus*. The natural food habitat for these insects includes debris in bird nests, dead insects, dead rodents and dead birds. Some or all of these are frequently found in buildings, including museums and museums stores. Old buildings with multitudes of dead spaces are particularly vulnerable but newer buildings can also rapidly accumulate sufficient organic material to support pests. As the life cycle usually takes a year under ambient conditions, insects increase slowly and need undisturbed conditions to thrive.

Endemic infestations have been discovered in the buildings of most museums and stores. One of the most common sources is an attic with wasp nests / bird nests / dead animals. *Anthrenus* and *Attagenus* are particularly common where there are accumulations of dead flies and wasps. Bats and bat droppings do not seem to be such an attractive source of food. Blocked chimneys are also very common sources of nests and dead birds; the pests can then rain down into the fireplaces below. A problem of case bearing clothes moth *Tinea pellionella* in one historic house was tracked down to a blocked chimney. When it was eventually cleaned, 18 bird carcasses were removed and the problem has now been eliminated [Xavier Rowe and Pinniger 2001]. Blocking off fireplaces can actually increase pest problems as the chimneys cannot be cleaned and the pests such as *Anthrenus* larvae can usually get through tiny cracks into the room. Voids and ducting are very common in buildings and accumulated organic debris in them will provide food for pests. One museum store has a problem with *Anthrenus*, which live happily on dead flies that are trapped between the double-glazing. Although some windows have removable panels, most were fixed and "sealed" to save money. This means that the problem will only now be cured by an extensive refit.

A key factor in any pest prevention strategy must be the use of sticky traps to detect and monitor pests. These simple traps have proved their worth time and time again in museums and stores [Ackery *et al* 1999, Kingsley and Pinniger 2001, Harvey 2001]. One good example of using traps to pinpoint a problem was in a large store in West London. *Anthrenus* larvae were trapped at one end of a large room after it had been refurbished and before any objects were moved in. When the area was investigated, a previously unidentified blocked up air duct was found. When it was cleaned out, three infested pigeon bodies were removed. Only then was it deemed safe to move the collection into the room.

Other sources of pests include old wool felt displays with *Attagenus* and *Anthrenus* larvae, education material with *Stegobium* in pasta collages and *Tineola* in a discarded woollen jumper.

Pest control contractors employed to control pests can actually cause serious insect pest problems. In their often misguided attempts to control rodents, they will place many rodent baits around a building. These can become infested with insects and I have seen *Anthrenus* and *Attagenus* larvae living in bait blocks and *Stegobium* in loose grain baits in storage and display areas. One museum store now has an endemic infestation of *Stegobium* almost certainly introduced by the pest control contractor.

In addition to the pests that may come from residual infestations in buildings, there are those which are spread with collections. One box of insects sent out from the museum with a few non-accessioned *Anthrenus* larvae hidden in a moth abdomen might go unnoticed. Unless the receiving museum has adequate quarantine and treatment system, another infestation may become established.

The clearest example of this happening is shown by the spread of the Guernsey carpet beetle *Anthrenus sarnicus*, around the UK since it was first recorded in South Kensington in 1963. Since then it has spread to many other museums around the UK. The first records were Liverpool, Oxford and Edinburgh and I am sure that the fact that these are the main entomological collections outside London is not coincidental. Other species, which may also have been spread with collections, include *Reesa vespulae* on insect speci-

mens and *Trogoderma angustum* on plant specimens [Pinniger 2001].

Very few museums have the luxury of a dedicated quarantine area but many have adapted rooms and sectioned off areas to deal with incoming material. One option adopted by many insect and plant collection managers is to treat all incoming material so that nothing is missed. Freezing to -30°C is the favoured technique as this can be done using a three or four day cycle. If the only freezers available are -18°C, this lengthens the treatment cycle to 2 weeks. Although this is quite manageable if the intake of specimens is low, the system can get bogged down if there is a need to treat large quantities. Most museums operate a very strict bagging regime and ensure that collections are not unbagged until they have returned to ambient temperatures. The only cases of condensation damage to specimens that I have seen was where this protocol was not observed.

The length of treatment time of three weeks or more has meant that carbon dioxide and nitrogen anoxia have only rarely been used for natural history collections. These treatments are more appropriate for very fragile or stressed mixed-material objects such as drums, inlaid furniture or paintings on wood.

The most rapid treatment is using heat, as most pests are killed in an hour at 55°C. However, uncontrolled heat will cause drying, shrinkage and cracking. The Thermo Lignum controlled environment chamber has been successfully used to treat a wide range of objects and collections. Extensive trials at the Natural History Museum in London aimed at evaluating the method for rapid treatment of very large numbers of entomological drawers in the move to Darwin Centre 2 are currently being prepared for publication. As an extension of this work, some limited trials were carried out simply bagging drawers in the same way as they would be for freezing but using an oven set to 52°C [Ackery *et al* 2002]. With more work, this method may be a very promising quick and low cost treatment technique for the future.

Priorities and conclusions

- Identify dead spaces and voids in buildings.
- Identify insect problems using traps.
- Use stringent inspection and quarantine procedures - there must be no exceptions.
- Consider routine freezing or heat treatment of incoming material and select the most appropriate method.
- Maintain a pest monitoring programme to give early warning of new pest outbreaks.

References

- Ackery P R, Chambers J, and Pinniger D B, 1999 Enhanced pest capture rates using pheromone-baited sticky traps in museums stores. *Studies in Conservation* 44 67-71
- Ackery, P.R., Doyle, A. and Pinniger, D.B., 2002. Safe high temperature pest eradication - is the answer in the bag? *Biology Curator*, 22, 13-14.
- Harvey, Y. 2001. Grey biscuits, flying carpets and cigarettes: an integrated pest management programme in the Herbarium at Kew. In, Kingsley, H. *et al*, *Integrated Pest Management for Collections. Proceedings of 2001: A Pest Odyssey*. James and James, 2001. 57-62
- Kingsley, H. and Pinniger, D. B., 2001. Trapping used in a large store to target cleaning and treatment. In: Kingsley, H. *et al* (Ed) *Integrated Pest Management for collections. Proceedings 2001 - a pest odyssey*, James and James, London, 2001. 51-56
- Pinniger, D. B., 2001. New pests for old: the changing status of museum pests in the UK. In: Kingsley, H. *et al* (Ed) *Integrated Pest Management for collections. Proceedings of 2001 - a pest odyssey*, James and James, London, 2001. 9-13.
- Xavier-Rowe, A. and Pinniger, D. B., 2001. No uninvited guests: successful pest management in historic houses. In: Kingsley, H. *et al* (Ed) *Integrated Pest Management for collections. Proceedings of 2001 - a pest odyssey*, James and James, London, 2001. 37-43

The Natural History Collections Working Group

Dries van Dam, Co-ordinator, Vicky Purewal, Assistant Co-ordinator

“Sharing, expanding, and promoting our knowledge and skills through international collaboration”

The Natural History Collections Working Group (NHCWG) is one of the specialist Working Groups of the Committee for Conservation (ICOM-CC). It is the largest of the 28 International Committees of ICOM (International Council of Museums) with over 1400 members worldwide from every branch of the museum and conservation profession. ICOM-CC aims to promote the conservation, investigation and analysis of culturally and historically significant works and to further the goals of the conservation profession.

The Triennial Congress brings the membership of ICOM-CC together to review and report on current research. Over 1000 papers have been published in the Congress Pre-prints in the past twenty years.

The Working Groups actively communicate with their members through newsletters, meetings and at the Triennial Congress. The NHCWG has about 150 members in more than 50 countries.

A brief history

During the last triennial period (1999-2002) the NHCWG was not functioning at its maximum potential. Due to unfortunate circumstances, the Co-ordinator stepped down leaving the WG unmanaged, without a newsletter, or a programme for the triennial meeting in Rio de Janeiro, Brazil (2002). Since ICOM-CC is the only multilingual platform in the field of natural history collections conservation, the ICOM-CC board recognized the seriousness of this unfortunate situation. With the help of the North-American Society for the Preservation of Natural History Collections (SPNHC), two candidates for the function of Co-ordinator were found and were appointed as Interim Co-ordinators until election in Rio.

In an attempt to get the WG fully back on its feet, the Interim Co-ordinators organized a forum discussion at the triennial meeting in Rio with the following self-revealing title:

“Knowledge loss, knowledge gaps, and the need for knowledge in natural history collections conservation.”

The ensuing discussions lead to a consensus in how the WG should take up its future role and resulted in a preliminary program for the next three-year period. The discussion was introduced by three short presentations about the following issues:

1. *Knowledge loss.* Loss of conservation knowledge and skills is a worldwide problem in Natural History Museums and can result through lack of training programmes or trainees, changing role of the collection manager, shortage of funds etc. How can we preserve our skills?
2. *Knowledge gaps.* Natural history has probably one of the longest traditions in preservation, but we are still learning about the chemical reactions that take place in our preserved specimens. Most preservation techniques are still based on individual experience and tradition than on objective analytical research. How can we fill these gaps?
3. *Knowledge need.* In most countries there are no training programmes concerning the preservation of natural history collections. International training programs could possibly provide a solution for this problem. How can we transfer and expand our knowledge?

After the discussion (attended by 80+ members) the following preliminary conclusions were made:

- The WG recognizes the existence of problems such as loss of conservation skills, serious gaps in conservation research and lack of training.
- These problems are not restrained to a few countries but affect most countries in the world.
- To resolve these problems, it is necessary for the existing national and international natural history societies and conservation institutes to collaborate. By assimilating knowledge through the expertise of natural history conservators, we can effectively and efficiently put back the knowledge and skills that have since been lost. The development of a web-based “conservation expertise network” together with a “mobile conservation skills lab” could be a useful instrument to realize such objectives.
- It is recommended that an interim meeting is held to discuss attainment of these goals outlined at the Rio meeting.

NHCWG programme 2002-2005

Taking the conclusions of the forum discussion in Rio into account the NHCWG proposes the following programme for the period 2002-2005:

1. Interim meeting considering the development of a web-based “natural history collections conservation expertise network” and a “mobile conservation skills lab” in order to prevent the loss of skills in natural history conservation and to promote the sharing of conservation knowledge. Prior to the meeting the following issues should be addressed:

- What are the possibilities for developing an “international (web-based) conservation expertise network”? Can existing networks in other conservation fields be an interesting model?
- What are efficient and practical methods to preserve and expand our conservation skills? Transfer of knowledge and skills by means of international project-based training programmes can be very successful. In practice, this means that when a collection is in need of conservation, and the conservation knowledge and/or skills in the (international) region are lacking, a training program in the form of a workshop can be organized. Additionally, adapted decision-making models can be very useful, (self) educational and practical instruments to upgrade conservation knowledge and ethics, and can consequently lead to the development of conservation protocols that suit the local situations. This approach of having a workshop based on a decision making model has already been put into practice at the “Ruysch Project” in St. Petersburg (conservation of a 17th century anatomical collection).
- Are national and international natural history societies and conservation institutes interested in collaborating for the benefit of such projects? Can organisations such as ICCROM foster such projects?

2. The WG wants to initiate a discussion about the influence of collection growth (in number and diversity) on conservation quality and conservation ethics. When collections grow infinitely, the quantity may destroy the quality of the collections, primarily because the number of conservators or collection managers will undoubtedly not increase at the same rate, posing a threat to the cultural heritage.

Is it really necessary to house and maintain everything that has ever been collected? Is it stored and managed in the most appropriate place? In some countries there is an overlap of natural history collections managed by different institutions. Selective acquisition, de-accessioning, and conservation as an integrated national policy could be a solution for the problems caused by collection growth. This could result in a higher (conservation) standard, improved accessibility with better general maintenance of the collections. Harmonization enables the different institutions to specialize in their complementary core collections. As a result, each institute will have its own unique collection task within the national collection plan (and therefore justification for its existence).

The Medical Collection, Netherlands is the first national project based on the above-mentioned approach. This project, funded by the Dutch government, is in its final conservation stage.

Programme schedule

2003. Assessment of feasibility in developing a web-based “conservation expertise network” and a “mobile skills lab”.

2004. Interim meeting regarding the development of an ‘expertise network’ and a ‘mobile skills lab’ for natural history collections conservation (presentation of assessment of possibilities).

2005. Triennial meeting ICOM-CC, Den Haag, the Netherlands:

- Presentations on recent developments in natural history collections conservation.
- Report on interim meeting; presentation of plans concerning the ‘expertise network’.
- Forum discussion “Limits to Collection Growth”.

It is very simple to become part of the worldwide network in the field of natural history collection conservation. It will provide a multilingual platform to present and publish your work as a professional, to exchange knowledge and skills with your national and international colleagues and to initiate and be part of global conservation projects.

For membership details, please contact the Co-ordinators, or alternatively, the application form can be found on the ICOM-CC website (<http://www.icom-cc.org>).

*Minutes of the 2003 BCG AGM — University of Manchester
Monday 7th April, 12-30 pm*

1. Apologies for absence

Kathie Way, Richard Comley.

2. Minutes of the last meeting

The minutes of the 2002 AGM had been printed in *The Biology Curator*. No questions were raised, and the minutes were approved by the meeting.

3. Matters arising

There were no matters arising.

4. Chair's report - David Carter

David Carter briefly told the meeting about the work of the merger committee.

5. Secretary's report

It's been a funny old year really. Because of the impending merger, we had decided that it wasn't really necessary to make up the full complement of committee, and so have not sought to make up those vacancies that have come up over the year. The result is that the current committee has just ten people on it. Nevertheless, we have had eight people attending each of the three committee meetings this year, a good turnout under the circumstances.

Furthermore, because a good deal of the business was to be taken over by the new group, there were many things on which decisions could not be taken. This has given the meetings a slightly strange feeling, but this has been balanced by the exciting prospects facing us with the establishment of NatSCA. And it has made the meetings rather shorter of late!

Certain things have continued as ever, of course. It may have seemed that there was a lack of study trip at the end of last year, but that was because we had run the trip to the US at the beginning of the year, and that was furthermore a huge success, demand for places being as great as for any trip we have run. The next trip will hopefully run according to timetable at the end of this year.

We have continued to produce the newsletter, though the one that should have come out recently was postponed until the formation of the new group, and we hope to produce the first copy of the new publication as soon as possible.

The website has been carried on regardless, and this will, I'm sure go from strength to strength with the new group.

We have maintained our links with GCG, and there have been suggestions made as to possible joint ventures that I hope will strengthen these links still further over the next couple of years.

GCG, of course, opted not to join in the merger at this point in time, but Patrick Wyse Jackson made it quite clear at the last GCG committee meeting that they were by no means rejecting the possibility altogether. I think they will be watching the new group most carefully to see how it progresses. I hope they will come to see the benefits of joining in the not too distant future.

Perhaps the most problematic shortfall we have suffered was that of Mike Palmer standing down. He had put a huge amount of effort into the collections monitoring task, and that has, in the last few months, taken something of a back seat. It is, nevertheless, a very important function for our groups, and I hope the new

group will be giving it its full attention from its very first committee meeting.

One issue that has been raised in the last few months was the possibility of putting together a profile of the group. As it happens, I raised this at the last GCG committee as well, and they also felt that this would be a valuable activity. I shall, hopefully therefore, be working on profiles for both groups over, I suspect, the next year or so. I hope to put together forms for all members to fill in, and would like to get these out to the memberships in the next few months.

Finally, I have a final thanks to give. It is customary for the incoming chairman to thank the outgoing chair for his or her work. Since we will not be having an incoming Chairman as such, I would like to take the opportunity of thanking David, who agreed to stay on for an extra year to take us to the merger, for all the work he has put in, and for being a real pleasure to work with. You may or may not know that David has also retired from the NHM after many years, a move which will no doubt make many of you jealous, but nevertheless, I would like to ask you all to show your appreciation in the usual fashion.

6. Treasurer's report

The treasurer had apologised for her absence and no formal report was made. However, the accounts were presented and approved, and printed below:

DETAILS OF EXPENDITURE & INCOME FOR THE PERIOD 01.04.2002 - 31.03.2003

INCOME

Subscriptions	273.00
2002 AGM	1569.00
Mammal Meeting	215.00
Interest on bank account	9.23

Total income **2,066.23**

EXPENDITURE

2002 AGM	1266.85
Mammal Meeting	375.75
USA Study Trip over budget	823.36
Annual Invoice mailout / merger advice	51.84
Committee expenses	86.09
Postal expenses	83.97
Biology Curator 22	1188.18
Biology Curator 23	612.83

Total expenditure **4,488.87**

Income over expenditure **-2,424.64**

Total at bank, 31.03.2001 **11,669.03**

Total at bank 31.03.2002 **9,244.18**

Kathie Way, BCG Treasurer, 27.03.2003

7. Any other business

There was no Other Business.

8. Merger committee report

The report of the merger committee was accepted without questions.

9. Vote to dissolve BCG

The following proposal was put to the meeting:

"We, the membership, recognising that the 'Natural Sciences Collections Association' Charity will take on the role and remit of BCG, vote to dissolve the Biology Curators Group forthwith." (The word forthwith was taken to mean "from the end of the meeting", as decided at the NSCG AGM immediately beforehand.)

The resolution was passed by 43 votes in favour, with none against and no abstentions.

10. Vote to transfer assets to NatSCA

The following proposal was put to the meeting:

"Subject to the adoption of resolution 1, we, the membership, direct the transfer of BCG assets to the new 'Natural Sciences Collections Association' Charity, after NatSCA is formally recognised by the Charities Commission."

The resolution was passed by 43 votes in favour, with none against and no abstentions.

11. Close of meeting

(Minutes taken by Steve Thompson)

*Minutes of the 2003 NSCG AGM — University of Manchester
Monday 7th April, 12-15 pm*

1. Introduction and consideration of agenda

The meeting was introduced and the agenda considered by the chair.

2. Apologies for absence

Apologies for absence have been received from Gabriela Mackinnon, Louise Cant, Mike Fitton, Helen Fothergill and Dominique Rogers.

3. Minutes of AGM held on Tuesday April 16th, 2002, Castle Museum, Norwich

These were printed in the Newsletter and also sent with the AGM papers.

These were signed as a correct record by the chair (PAB)

4. Matters arising from minutes

None

5. Chairs report - Paul Brown

As directed at last year's AGM, Paul Brown (Chair NSCG) and Dave Carter (Chair BCG) set up a group to discuss the mechanism by which we could join forces with BCG. Simon Moore chaired the five meetings. From NSCG were also Kate Andrew, Paul Brown and Donna Young and from BCG were David Carter, Nick Gordon, Howard Mendel and Steve Thompson. Briefly, as outlined in the report of this committee's business over the past year, which has been distributed to both memberships, we met and after careful discussion, we decided that the best way forward would be to close down both NSCG and BCG and set up a new charitable organisation. This we have called 'The Natural Sciences Collections Association'. We, the committee of eight, have set up this new charity so that the assets of both BCG and NSCG can be trans-

ferred easily and so that the new charity business can carry on smoothly after this conference. Howard Mendel was instrumental in writing a constitution, which has been sent to all BCG and NSCG members, which was acceptable to the Charity Commission and many thanks for all his hard work. Kate Andrew is setting up a bank account with HSBC for NatSCA. It is unfortunate that Geology Curators Group is not able to join us at present but we will continue to maintain good relations and liaise closely with them at all times. Under the new umbrella of NatSCA, we will continue to service the best interests of Natural Science Conservation. The future safety and conservation of Natural Science Collections depends on us having a stronger voice and a higher profile. A larger membership of a new combined conservator & curator group will give us more muscle. Our new combined membership is a reflection of the hybridity 'curator/conservator/collections manager' of many of us who care for natural science collections. An invitation for letters or papers discussing merger has produced no reaction from the membership.

We have been an independent group for ten years, separating from UKIC because there would have been a loss of voting rights for our non-accredited conservator and curator membership and because of their increased subscription rate. Those of us who have Natural Science Conservation Accreditation have acquired this via UKIC. During these ten years, we have maintained a direct influence on Conservation within the United Kingdom and Eire by being a part of the National Council for Conservators and Restorers. NatSCA will continue to influence NCCR, as they move toward merging many of their component member groups, by maintaining a hybrid status. NSCG met with the other hybrid members of NCCR such as the Society of Archivists who have non-conservator members, to work toward a hybrid membership status within the new NCCR merged group. There need not be insurmountable problems in relation to plans to amalgamate conservation bodies into one new group. I would envisage and hope that BOTH accredited and non-accredited natural science conservators will continue to have an influence via our representatives Bob Entwistle and Simon Moore who will officially represent NatSCA within this proposed new NCCR group and we thank them for their hard work.

We hope to continue the NSCG style one-day seminar series within NatSCA with a possible entomology seminar hosted by Darren Mann at the Oxford University Museum of Natural History and which is entitled "Insect Collections: From Preservation to Conservation".

We are pleased to hear about the continuation of conservation posts in Norfolk after a period of uncertainty. We congratulate Nigel Larkin who was central in the fight to save the proposed new Geology and Climate Change Museum for North Norfolk and three other local museums from closure, which had been under threat of termination recently because of financial difficulties within Norfolk Museums and Archaeology Service.

We welcome back Sue Lewis, of the Natural History Museum, who has been working at the Canadian Conservation Institute and at the Conservation Section of the Canadian Museum of Nature in Ottawa last year. She carried out a pest control study with Tom Strang and Rob Waller and a study of coating insect specimens with Parylene with Malcolm Bilz. We look forward to reading her report in the new NatSCA journal.

I thank all the hard work done by committee this last year, in particular Kate Andrew has continued in the essential role of Treasurer and will continue in post as Treasurer of NatSCA. Also, Vicki Noble has effectively managed the Newsletter and is placed to take on the development of a new and possibly peer reviewed Journal for NatSCA.

6. Secretary's Report - Paul Brown, acting for Gabriela Mackinnon

Committee member	29 May 2002	15 July 2002	11 Sept 2002	20 Nov 2002	6 Feb 2003
Kate Andrew (1999)	Y	Y		Y	Y
Paul Brown (2001)	Y	Y	Y	Y	Y
Louise Cant (2001)	Y		Y	Y	
Susan Cooke (2002)	Y			Y	Y
Bob Entwistle (2001)		Y			
Nigel Larkin (2002)				Y	
Gabriela MacKinnon (2002)		Y	Y	Y	Y
Simon Moore (2002)	Y	Y	Y	Y	Y
Vicki Noble (2002)	Y	Y		Y	
Maggie Reilly (2001)		Y		Y	Y
Donna Young (2002)	Y	Y	Y	Y	

7. Membership Secretary's report - Maggie Reilly

The membership figures for NSCG for 2002-03 are as follows:

- 109 members categorised as:
- 82 personal (including 1 student)
- 5 overseas personal
- 22 institutional

There is also a mailing to the British Copyright Library.

Fluctuations in membership over the last 4 years has ranged from about 100 to 130 members. NSCG is registered with the Data Protection Agency in order to legally hold data from its membership. This registration will be updated when NatSCA is formed and the new membership recruited.

BCG and NSCG memberships added together total around 400, taking account of the 60 or so individuals who were members of both groups. This is a healthy starting point for the new merged group NatSCA who would hope to initially retain and then build on this size of membership.

NSCG and BCG held information on members in two different electronic formats but after some persuasion and ironing out a few glitches, all the information has been updated into an Access 2000 database. In the new NatSCA membership application form we are seeking some additional information – email addresses, professional affiliations and an indication of members areas of interest - this will be useful data for the new association.

8 Treasurer's report - Kate Andrew

Accounts for the year 1.2.02 to 31.1.03

Current Account - Midland Bank 1442341	
Balance 31.1.02	£ 7208.97
<i>Income</i>	
80 UK personal memberships @ £10.00	£ 800.00
1 UK student memberships @ £7.00	£ 7.00
5 Overseas personal @ £12.00	£ 60.00
23 institutional membership @ £25.00 (1 for 2003/04)	£ 575.00
Membership sub total	£ 1442.00
Bank interest c/a	£ 5.90
Bank interest d/a	£ 44.52
Advertising income & sale of back issues	£ 40.00
Conference & meeting income	
Share of profit from 2001 AGM, from BCG	£ 289.70
Sponsorship from PEL	£ 400.00
AGM/ conference fees	£ 993.00
Meeting income sub total	£1682.70
Total income for 2002/2003	£3215.12
Total	<u>£10424.09</u>
<i>Expenditure</i>	
Newsletter & web site production	£ 330.65
NCCR & dataprotection fees	£ 235.00
Conference costs	£ 966.75
Committee meeting expenses	£ 142.40
Merger meeting expenses (to be shared with BCG)	£ 221.12
Total expenditure 2001/2002	£1895.92
Balance at 31.01.02	<u>£8528.17</u>
Balance at bank c/a 31.01.03	£2983.65
Balance at bank d/a 31.01.03	£5544.52
Total combined balance	£8528.17

Debtor

50% share of total merger meeting expenses costs owed by BCG who paid up, and money from last year's conference were received late but gratefully received. Most meeting expenses have been met by NSCG. : £200 were paid for NCCR membership.

A high interest notice savings account number 71749013 was opened with HSBC on 25th July 2002 with £5500 transferred from the current account, this has generated a much better rate of interest accumulating on the Group's funds.

A few back issues of the journal have been sold as well as a small amount of advertising space.

The major expenditure this year has been The Newsletter. We are intending to spend money on the produc-

tion of a website for NatSCA. A publication 'The Ten Agents of Destruction' will be published soon.
1 February 2002

Accounts checked and approved by Velson Horie, 26th March 2003, Keeper of Conservation, Manchester Museum

"Thank you for the account details. I am happy to approve them. Thank you again for being treasurer and holding the finances together. It is an essential and unrecognised post."

9. Proposal to accept the accounts

These were proposed by Louise Bacon and seconded by Steve Thompson.

10. Editor's Report - Vicki Noble

It has been a transitional year. We have had 60 pages of news about meetings, conferences, whether or not we should adopt the MA code of Ethics, reports from NCCR...and of course the merger! We tried to keep that in the forefront of the membership's mind, and invited comment and discussion. We have called for copy for the last two sections of the "Agents Of Deterioration" series (*Custodial Neglect* and *Physical Forces*), and hope to get the entire series published in book format in the future.

We took the decision to send the newsletter to a printer, MRT Response, rather than print it out ourselves, and got an extremely competitive quote from them.

We decided not to go ahead with a planned website, but to wait until the merger had taken place and come up with a new website for the new group.

Now that the merger has taken place, it's the prime opportunity to spend some time and money raising our profile and getting us noticed. The website will help with this, as will plans for a peer-reviewed journal.

11. NCCR Report. Simon Moore

The NCCR is forging ahead and (as Velson's talk explained) becoming more convergent. There is not much else to report presently (that would be of special interest or relevance) except to say that those members of the old NSCG who wish to become individual members of NCCR may do so. In time I hope to get this more sorted out once we have a cohesive and working structure to NatSCA. I would prefer a more corporate approach as a sub-group of NatSCA but that still has to be hammered out.

12 AOB

Insurance – Simon Moore has negotiated a very reasonable insurance deal with Heath Lambert for those conservators working independently (contract work requires insurance). The contract requires at least 10 persons and would provide cover for £2M Public Liability and £1M professional indemnity for those who are not being paid more than £10K per annum for Conservation contract work. If you are interested in such a contract or know of anyone else in Natural Science Conservation who might be interested, please let him know your/their Names, Contact details and Annual turnover. The more clients the cheaper will be the deal. He has application forms and information if anyone requires it. This is a good flexible package – please support it. He can be contacted at: Conservator of Natural Sciences, Hampshire County Council, Recreation & Heritage Department, Museums & Archives Service, Tel: 01962 826737 and email: simon-moore@hants.gov.uk, www.hants.gov.uk/museums

13. Merger Committee Report

Prepared by Paul Brown (Chair NSCG & Secretary of merger committee) & David Carter (Chair BCG), as sent to the membership with the AGM papers, presented by the Chair and received by AGM.

• INTRODUCTION

Merger between BCG and NSCG was accepted at both BCG and NSCG Annual General Meetings in 2002. The chairs of the respective groups (David Carter & Paul Brown), as instructed by both BCG and NSCG AGMs, set up a joint committee to recommend the mechanism for merging and to write a new constitution for the new group. This committee met six times during 2002-2003. NSCG were represented by Kate Andrew, Paul Brown (Secretary), Simon Moore (Chair) and Donna Young and from BCG were David Carter,

Nick Gordon, Howard Mendel and Steve Thompson.

Steve Thompson reported the proceedings of the merger committee to GCG Committee. The merger committee reiterated that we will always work closely with GCG and that we would like GCG to merge into the new group at a later date, should they so wish.

Paul Brown holds the minutes of the merger committee and this report has been developed from these minutes.

- THE SETTING UP OF THE CHARITY AND CONSTITUTION.

The Merger Committee decided that the best way to merge would be to set up a new charitable organisation and dissolve both NSCG and BCG. We have called the new group 'The Natural Sciences Collections Association (NatSCA)'. The initial trustees of the group are the eight merger committee members.

The Merger Committee accepted a draft Constitution on 24th August 2002. The Constitution was submitted to the Charity Commission with the application for charitable status for NatSCA. The Charity Commission agreed that NatSCA is suitable for charitable registration, but required amendments to the Objects of the Constitution. The Merger Committee agreed these amendments to the objects, on 20th January 2003. Charitable status will be granted on the receipt of signed minutes of the IGM, signed copy of the minutes of the 24th August 2002 when the constitution was adopted by the merger group and a signed copy of the amended constitution.

- FINANCE

At the meeting of Monday 16th September 2002, it was recommended that the membership year for NatSCA should be from 1st February to 31st January. Non-payment by the end of June will signify lapse of membership.

Committee agreed unanimously on 4th November 2002 that we set up the new NatSCA bank account with HSBC using funds from BCG (with a promise to return the balance if the 'merger' does not proceed). According to the NSCG constitution, NSCG funds must be transferred to another 'charity'. BCG funds are not tied by their constitution so will be used until the NatSCA Charity is operational. This account will be ready for NatSCA business before the AGMs and NatSCA IGM. It was recommended that the BCG and NSCG accounts continue for a short period after the dissolving of both organisations until the full registration of NatSCA as a charity, so that business can continue uninterrupted.

Both BCG and NSCG agreed that membership for 2002-2003 should be extended until after the AGM's and the Inaugural NatSCA meeting in April. Subscription forms for NatSCA will be included with the conference registration papers so that the subs can be collected efficiently and immediately before the IGM at Manchester.

Committee agreed unanimously on Monday 4th November 2002 that Subscription rates should be: [Student £10], Individual £15, Institutional £30 and foreign Individual at 25 Euros or \$25. Personal membership at £15 is less than BCG's £8 and NSCG's £10 combined (=£18).

- THE INTERIM COMMITTEE

Members of both BCG and NSCG committees were invited to serve on the initial NatSCA committee. The list of names of those who are interested in serving on the Interim Committee, who are elected BCG and NSCG committee members, will be presented at the Inaugural General Meeting to be proposed to the IGM en block. This provisional committee will stand for one year and full elections will take place at the first AGM in 2004.

It was recommended, at the meeting of Monday 16th September 2002 that, after the first AGM in 2004, the Executive Committee shall consist of between 9 and 20 members. NatSCA Executive Committee membership will consist of, the three honorary officers, 6 to 12 ordinary members, both being immediately eligible

for re-election, and not more than 5 co-opted members.

The structure of subcommittees – special interest groups will be organised during the first year of NatSCA business. Such standing subcommittees that have been proposed are: 1. Conferences & Meetings, 2. Publications, 3. Membership & Publicity, 4. Conservation and 5. Collections Management. The chairs of each subgroup will be members of the Executive Committee.

- BCG & NSCG AGM Business

BCG and NSCG are advised by the merger committee to carry out the legal AGM business and then pass a resolution to dissolve and transfer asset to NatSCA.

- NatSCA IGM BUSINESS

Before any business is transacted at the first Annual General Meeting (referred to in the Constitution as the Inaugural General Meeting), the persons present shall appoint a chairman of the meeting, and this should be the chair of the merger committee. It was agreed that there should be four resolutions:

- 1 To adopt the new Constitution.
- 2 To vote into office ordinary members of committee initially for one year.
- 3 To vote into office the Chair, Secretary and Treasurer, initially for one year.
4. To accept the new subscription rates.

A full set of merger committee minutes is available from Paul Brown.

No questions were put to committee from the membership.

14. Vote to dissolve NSCG

In accordance with the natural sciences conservation group constitution item 16. Power of dissolution, at the direction of the membership (at the AGM in Norwich in April 2002), the charity trustees have decided that it is necessary to dissolve the charity. Notice of the resolution was given well in advance and the meeting was aware of the terms of the resolution. According to item 16 on the NSCG constitution, a two-thirds majority was required for the motion to be carried. Both motions 1 and 2 were proposed and seconded by the committee en block. Velson Horie drew attention to the word ‘forthwith’ and whether it was appropriate to use in Resolution 1. This was resolved when it was pointed out that, although not a registered charity, NatSCA does exist and under the proviso that ‘forthwith’ meant ‘as soon as practicably possible’ [when the NatSCA charity is formalised] the vote went ahead.

Resolution 1: We, the membership, acknowledging the aims of NatSCA as being compatible with those of NSCG, vote to dissolve the Natural Science Conservation Group forthwith.

This was carried 27 votes for, 0 against and 0 abstentions.

15 Vote to transfer assets to NatSCA

Resolution 2: We, the membership, direct the transfer of ‘NSCG’ assets to the new Natural Sciences Collections Association Charity, after NatSCA is formally recognised by the Charity Commission.

This was carried 27 votes for, 0 against and 0 abstentions.

After the successful vote for Resolution 1, the charity trustees have the power to realise the assets held and transfer them to NatSCA, having similar charitable objects

16. Close of Meeting

(Minutes taken by Clare Stringer)

*Minutes of the NatSCA IGM, 2003 — University of Manchester
Monday 7th April, 2-00 pm*

1. Consideration of the agenda

The order of items on the agenda were changed so that the new chair could be voted into office and take over chairing the rest of the IGM. There were no reports presented by the chair or secretary.

2. Introduction

Simon Moore, as Chairman of the merger committee, gave a short introduction, covering the events leading up to the present meeting. This included a short account of the history of the Natural Sciences Conservation Group, and led up to the decision to merge. He thanked the merger committee, especially Kate Andrew, Kathie Way and Howard Mendel, for the work they had put into enabling the merger and making it as smooth a process as possible.

3. Election of officers

The following resolution was put to the meeting:

"This meeting accepts the individuals listed be accepted as Chairman, Secretary and Treasurer of the NatSCA committee, and that they be entrusted with the organisation of NatSCA for a period of one year, until the 2004 AGM".

Executive Officers proposed being Chair: Nick Gordon, Secretary: Paul Brown and Treasurer: Kate Andrew.

Proposed, Tony Irwin, seconded, Rob Huxley.

The resolution was passed, 70 in favour, none against, no abstentions.

4. Election of interim committee

The following resolution was put to the meeting:

"This meeting accepts the individuals listed en bloc, to be the interim executive committee of NatSCA for a period of one year, until the 2004 AGM."

The interim NatSCA committee consisting of those members of the BCG and NSCG committees who wished to stand, were listed as follows: Sue Cooke, Bob Entwistle, Jo Hatton, Gabriela MacKinnon, Howard Mendel, Simon Moore, Vicki Noble, Maggie Reilly, Douglas Russell, Steve Thompson and Donna Young.

Further members may be co-opted during the coming year.

Proposed, Rob Huxley, seconded, Rosina Down.

The resolution was passed, 70 in favour, none against, no abstentions.

5. Acceptance of constitution

The NatSCA constitution, as amended according to the recommendations of the Charities Commission, and previously circulated to both BCG and NSCG memberships was presented.

The following resolution was put to the meeting:

" This meeting adopts the Natural Sciences Collections Association constitution, as approved by the Charities Commission."

Proposed, Louise Bacon, seconded, Lindsey Loughtman.

The resolution was passed, 70 in favour, none against, no abstentions.

6. Acceptance of NatSCA subscription rates

The following resolution was put to the meeting:

"This meeting accepts the subscription rates for NatSCA to be: Individual £15, Institutional £30, Overseas Individual 25 Euros or \$25."

Proposed, Kate Andrew, seconded, Claire Stringer.

The resolution was passed, 70 in favour, none against, no abstentions.

7. AOB

A draft logo of an Archaeopteryx was presented, and the rather muted response suggested that this would have to be reviewed. Ideas were requested.

Claire Stringer expressed the wish to be involved on committee with the collections at risk role.

Insurance –

Simon Moore has negotiated a very reasonable insurance deal with Heath Lambert for those conservators working independently (contract work requires insurance). The contract requires at least 10 persons and would provide cover for £2M Public Liability and £1M professional indemnity for those who are not being paid more than £10K per annum for Conservation contract work. If you are interested in such a contract or know of anyone else in Natural Science Conservation who might be interested, please let him know your/ their Names, Contact details and Annual turnover. The more clients the cheaper will be the deal. He has application forms and information if anyone requires it. This is a good flexible package – please support it. He can be contacted at: Conservator of Natural Sciences, Hampshire County Council, Recreation & Heritage Department, Museums & Archives Service, Tel: 01962 826737, email: simon.moore@hants.gov.uk and www.hants.gov.uk/museums.

8. Close of meeting

(Minutes taken by Steve Thompson & Paul A. Brown)



All together now...everyone say “remedial”

No Pain, No Gain: a personal view of the conference
- Steve Thompson: Keeper of Natural History, Scunthorpe Museum

Well, in short, an excellent, even historic, meeting. After talking about it for a good few years now, we have a merged group, achieved at the end of the day by unanimous vote. The prospects look exciting, so let's hope we hit the ground running and make an impact as early as possible.

But there *was* more to the meeting than that, of course. The talks were themed around the subject of the changes taking place in the museum world at the present time. It was encouraging that we were able to discuss what could be seen as a threatening prospect with considerable optimism. I felt that there was generally a very positive air to the meeting, with an eye firmly on the opportunities before us. The AGMs of course, dominated the first day of the meeting and it would be easy to forget the two talks that were given in the morning. However, they were on two important topics.

The first, given by Tristram Besterman, was about the upheaval taking place at our host institution. I felt that much of specific importance was left unsaid, perhaps not surprisingly. Most people were probably interested in what was likely to happen to the people and those collections at the Museum. Tristram, however, was more concerned with the rationale behind the actions he was recommending, on top of which, of course, many decisions had yet to be taken. But some of the issues that were raised will have sounded very familiar to many there. The need to be more responsive both to the need for change and flexibility within the museum, and to the people who use the museum, its staff and its collections. Of course, many places have been through this already, and perhaps Manchester has, for various reasons, lagged a little behind.

Steve Garland looking at regional changes, particularly the new hubs, gave the second talk. As he himself pointed out, this might not seem to be relevant to many people, but beware! If the scheme is carried through to its planned end, there are very few places that will be left unaffected. If nothing else, it is likely to change the way funding flows through regional museum networks, and some places may also be expected to take on roles and tasks that they have not so far considered. What seems to be clearest is that nothing is very clear at this point in time, with many crucial decisions yet to be made. There will be some doubts that the scheme will work as its planners envisage, or that a large part of the museum community will receive any tangible benefits from it. But Steve pointed out a number of positive signs that have already emerged. These centred very much around the fact that museums and curators within regions have had to communicate more and work together, a trend that will have to continue if the scheme is to work, and which must be welcomed.

As far as natural sciences are concerned, there are both good points and weaknesses revealed. There is potentially more funding available, and an emphasis on outcomes, partnerships and innovation, things that I believe we do well in natural sciences. However, it is clear that we tend to get left out of the "arts and culture" arena all too easily, and suffer from an image problem even within the museum sector. This is at odds with the popularity of natural sciences amongst the general public, and sets a challenge for the new group to work towards redressing this situation.

The second day was very much talk based, with four talks in the morning and three in the afternoon. By and large, these looked more at the tactical aspects of changes taking place rather than the strategic, drawing mainly on people's experiences of specific projects or areas of activity. Having said that, the day as a whole was framed by two talks that were looking at the more general scene.

Velson Horie looked at the changes taking place within the conservation world, and it was interesting to hear what he was saying in the light of the prospects for what the new group might tackle and achieve. The history of conservation over the last twenty years has been of the recognition of a distinct field of endeavour, followed the attempts to gain broader recognition of this, culminating, in natural sciences, in the establishment of NSCG. However, too many small groups have been seen to be diluting their impact and groups

have been merging to form ones more capable of promoting aims effectively. This does not detract from the achievement of NSCG in raising the profile of natural sciences conservation, and it is now the responsibility of the new group to build on this achievement and take forward the aims of the group in, we hope, a more effective way.

The present trend within conservation as a whole is to try and reshape the sector so as to give a more coherent and effective voice. So, there is a drive by the NCCR to set up a unified body, to generate a set of common standards, to promote better training within the sector and to respond better to the public and other users of the resources with which we are concerned. It seems to me that our situation in NatSCA mirrors this activity remarkably well, and I think we might use this as a focus for own support and promotion of the conservation of natural science collections.

The final talk of the day, from Rob Huxley, also reflected on our potential relationships, and look directly at the possible co-operation between SPNHC and ourselves. SPNHC could quite easily be regarded as a sister organisation in the US, and there are many areas of overlap between the two groups. However, geographical separation alone means that the two groups should not conflict. It does mean that we could benefit greatly from ongoing communication, exchange of experiences and ideas, and collaborative efforts, including publications and major meetings.

The other talks of the day drew on specific experiences, mostly from specific projects within certain institutions. The first was Donna Young's account of the collections' move at Liverpool Museum, a project on a scale that most of us are unlikely to have to contemplate. However, one of Donna's comments was that the size of the project was a minor factor, and that any project needs to be well planned and executed. Her conclusions were to expect the unexpected, have contingency plans and expect extra costs to appear, and none of these relate directly to the scale of a task.

Chris Collin's talk was not about past experience but about one of his current projects, the development of a conservation strategy for the NHM. This task has come about as a result of needing to make NHM activities more efficient and cost-effective, to promote business continuity, to establish clear standards and to standardise conservation across the institution. It will be interesting to see how this develops, but of greatest interest to the rest of us will be certain things that Chris also alluded to. These are the aim to set standards that could be applied world-wide and then to outreach them to other institutions, and the aim to establish training schemes that could then be made available outside of the NHM. This may be the kind of thing where NatSCA could collaborate with the NHM.

From Holland we heard Jan van Tol, from Naturalis in Leiden. Our groups have been watching the development of this exciting facility for some years now, and it was most interesting to hear Jan's views now that things have settled down rather. Most of us have watched enviously, seeing the sums of money that have been made available, but the fact is that a number of things he spoke about reinforced Donna's comments from earlier, about the need for good planning and things not turning out quite as expected. It seems clear that there are a number of things they would do differently if they had the chance. Nevertheless, he was keen to stress the fact that they felt they were in a much better position now than before they started.

After lunch, David Pinniger spoke to us about pest control techniques. This was by no means unfamiliar but I am in favour of repetition. It is all too easy for us, in our busy working lives, to overlook even some of the basic things and it does us no harm at all to be reminded of them. For instance, one of his messages was monitor, monitor, monitor, and checking and changing insect traps is one of those things that can get put off. Perhaps we should add a banner on our journal to say "now you've read this, go and check your traps". On top of that, it also put in our minds the idea of running training courses in this area.

Ollie Crimmen's talk stressed again the value of forward planning before setting off on a project. In this case it was the Darwin Centre Phase 1. Again, while it has clearly been an improvement overall, that doesn't mean the results have been perfect. Lab space is very much reduced, and environmental control has now

been taken away from the collections' managers. Functions, which were formerly carried out in a single office, are now separated. This has been mainly to meet current health and safety needs, but it has resulted in a considerable increase in time taken, as well as a great deal of moving around, a problem not just for the people but also, of course, for the specimens themselves. And some people are not so happy about being put on display along with their collections

The final part of the conference was a question and answer session, and the final question produced some suggestions as to what kind of things that the new group might think about tackling. These included looking at public awareness and raising the profile of museums, particularly what happens behind the scenes, developing our relationships with other bodies, drawing on the strengths of having curators and conservators together, improving our standing with national government and drawing in other disciplines. We will see over the coming months and years how well we have responded to the challenges now before us.

From Maggie Reilly, Membership Secretary

Hello, all you actual and potential members out there. We are very pleased to report that so far over 60% of the potential 'sitting membership' i.e. former members of BCG and NSCG have shown their support by joining NatSCA. We have also already attracted a number of brand new members. This first Newsletter is going out to all new and former members and we hope you find it an enjoyable, informative and encouraging read. Please, if you haven't already, join now - this is the only mailing that will be sent out to non-members.

The subscription year is now 1st February to 31st January. Subscription rates are £15.00 for personal members and £30.00 for institutional members for both UK and overseas institutional subscriptions. We are sorry but we are unable to accept Visa and payment must be made in sterling drawn on a UK bank. We know the requirement to pay in sterling has significant bank charges for overseas subscribers and we are exploring alternative means of payment.

Please send payment to:
Maggie Reilly
Membership Secretary NatSCA
Zoology Museum
Graham Kerr Building
University of Glasgow
Glasgow G12 8QQ
Scotland
UK.
email: mreilly@museum.gla.ac.uk

NatSCA Conferences & Seminars - Programme of events for 2003 / 2004

Jan 2004: (date to be confirmed): Insect collections seminar to be held in the Entomology Department at The Natural History Museum, London.

This seminar, aimed at non-entomologists, will cover the preparation to long-term preservation, and use of insect collections. The aim is to provide practical advice in the form of lectures and demonstrations in areas including mounting techniques, preparation and conservation of microscope slides, alcohol to dry techniques, historic collections and collections management.

26 - 28 April 2004: NatSCA Annual Conference & AGM, National Museum of Ireland

*“Natural History is Cultural History:
Engaging the Public, Innovations and Collaboration”*

This is the first notice for our AGM, to be held in Dublin, from Monday 26th to Wednesday 28th April, 2004. We are planning a conference of at least two and a half days, with the formal beginning after lunch on the Monday. To be included in the meeting will be the AGM, a series of presentations on and around the above theme, and a series of visits to venues in Dublin, including the Natural History Museum, a fine and historic collection, recently refurbished and redisplayed, the recently redeveloped National Botanic Gardens, and Trinity College and its collections. We expect to hold an evening wine reception, at the museum, and an Annual Dinner. We are considering the possibility of field events, and will organise a day visit to Belfast and the Ulster Museum on the Thursday, if there is enough interest. In addition to all of this, there will be the added incentive of Dublin's many extra-curricular activities. Why not take a little extra leave and make a break of it!

To aid in the planning of this meeting and to gauge some idea of the numbers interested in attending, we have enclosed a form for you to fill in and return ASAP. We would welcome any suggestions for things to include, and offers of papers for this meeting.

2004:(date to be confirmed): Birds practical Seminar, Douglas Russell - NHM (Tring)

May 2004: Museums Month Event(s)

Please return the form and direct any enquiries to:

Jo Hatton, Assistant Curator

Grant Museum of Zoology & Comparative Anatomy, University College London

Tel: 020 7679 2647

e-mail: Joanne.hatton@ucl.ac.uk

Latest on Professional Insurance

With the 'sue-you' society in which we live, the need for insurance to cover against accident, whether to a person or a piece of work, becomes more urgent to those of us not covered by our employers' insurance. If you are doing ANY freelance work, whether full time, part time or occasionally, you will need insurance against Personal Liability and Professional Indemnity. Most organisations for whom we work require a £2M cover for Public Liability (PL) and £2M for Professional Indemnity. Since most of us work regularly on objects worth much less than £2M it seems unfair that we should (in a way) subsidise those who work on high-value objects such as Old Masters &c.

To this end I have contacted Peter Milne of Heath-Lambert (formerly Crowley-Colosso) and re-opened negotiations for a combined package of £2M PL and £1M PI. I already pay over £600 for my PL cover alone and have great difficulty in maintaining a reasonable level of PI since most insurers do not understand the implications for Natural Science Specimens or cannot be bothered with insuring against problems with low value objects anyway.

Most of us, like myself are in full or part-time employment and use the occasional freelance/contract work as a means of boosting our meagre salaries when time allows. The insurance package will be geared along these lines and bearing in mind that all/most of us are earning up to £10K per annum 'on the side' but not more than £15K p.a.

What I need are at least 10 people who work in natural sciences conservation to give me the following details:

Name:

Address for business relating to this insurance:

Contact number:

e-mail (not essential):

Average annual gross turnover: £

- Simon Moore, Natural Sciences Conservator

Please contact me at simon.moore@hants.gov.uk

“Nanoq — Flat Out & Bluesome” **An Art Project by Bryndis Snæbjörnsdóttir and Mark Wilson**

The subject of this project is the culmination of a two-year period of research during which a substantial number of stuffed polar bears in the UK have been tracked down and photographed by the artists in both public and private collections. The art installation will comprise several of the bears being brought together under a single roof. The first exhibition will be in Bristol (Spike island) and the second in Glasgow (Tramway). The opening date in Bristol is to be the 14th November and closing date in Glasgow, at the end of February.

Although the exhibition will stand as a spectacle in itself, it also unlocks a host of implied narratives; its history is so inevitably bound up with whaling and fishing traditions, with arctic exploration, pioneering and generally with 18th, 19th and 20th century adventuring. As a consequence of this, its potency as a symbol continues to intrigue and baffle us in our attempt to assimilate new perspectives on old behaviour and our collective duplicity in relation to nature. The exhibition will provide the opportunity to draw together all these disparate threads by means of a series of talks and seminars, with invited specialist speakers. Together with the photographs, the results of these events will in turn constitute the substance of a publication. The work will also exist as a web-based project in which viewers are able to gather information about the project and its process as well as viewing the bears on site at their locations in Britain.

Where the exhibition will last for only a few weeks it will be both a culmination of the research and a trigger for further inquiry. Through the talks and events the project will be extended and this process will subsequently be reflected in the publication, thereby providing the opportunity to extrapolate from the wider sources.

A starting point for this work had a personal twist, as the Icelandic surname name Snæbjörnsdóttir means, literally, snow-bear’s daughter. The very common Icelandic impulse to trace family ancestry, often as far back as the first settlers in 974, is symbolically extended through the collaboration here in respect of the provenance of these preserved specimens, wherever possible tracing their journey from the arctic to their current environment. This research thus provides the structure for points of connection, historically and geographically. The bears themselves will be drawn from municipal and private collections throughout the UK. The transport of the specimens may also be documented.

The touring show will consist of the installation at one contemporary art venue in England – namely Spike Island and at one venue in Scotland – Tramway in Glasgow in addition to a photographic exhibition at a number of further museum venues in England.



The touring show will consist of the installation at one contemporary art venue in England – namely Spike Island and at one venue in Scotland – Tramway in Glasgow in addition to a photographic exhibition at a number of further museum venues in England.

The first part of the project involved the mapping of taxidermied polar bears in Britain. The polar bears have been photographed in context, that is, as they are presented or stored in the museums or private collections. An important part of the project is the accumulation and processing of information gathered relating to the origin and history of these polar bears. As a consequence of this practical research, the artists have accumulated the archive of photographs, taken on medium-format camera. These images will feature in the proposed publication. Several museums have already expressed an interest in the possibility of taking the touring exhibition, comprising all or a selection of these photographs.

The artists:

Bryndís Snæbjörnsdóttir is Professor at Valand School of Fine Art in Gothenburg. She lectured from 1995 – 2002 on the Environmental Art programme at Glasgow School of Art. Last year she took a one year's leave of absence from teaching, having received one of the major visual arts awards from the Scottish Arts Council. During this year she took up residencies in Greenland, Iceland and in Melbourne in pursuit of her work and projects. She has exhibited extensively both nationally and internationally.

Mark Wilson is a lecturer in Fine Art at Cumbria Institute of the Arts. He has a long experience of lecturing both in the U.K. and abroad. He has lectured in most of the Fine Art programmes in the north of England as well as in America, Italy and Australia. He has recently undertaken residencies in Greenland and Melbourne. His work has been shown extensively in the UK, Europe and USA and he has received many awards in respect of residencies undertaken in connection with these exhibitions.

Bryndís Snæbjörnsdóttir and Mark Wilson have been collaborating on all projects since 2001, having done so for selected shows in Iceland and the UK in the two years preceding. Their work, characteristically rooted in the north, explores issues of history, culture and the environment in relation to the individual and his/her sense of belonging or detachment. The most recent projects use the relationship between humans and selected animals - the polar bear, the Greenlandic sled dog, the Icelandic sheep - as a springboard to posit questions on cultural and individual location in an uncertain nature/culture relationship. Their work is installation and process-based, utilising photography and video.



BCG Trip – USA: February 17th -24th 2003

AMNH Frozen Tissue Facilities

Mary Spencer Jones: Department of Zoology, The Natural History Museum

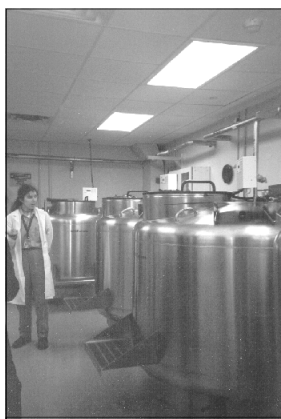
The American Museum of Natural History frozen tissue facility, which opened in May 2001, was funded by a NASA grant and cost approximately 1 million dollars to construct. It is housed in a 2,000-square-foot laboratory in the basement of the Museum and already has some 20,000 samples. The locked facility, which has dedicated staff, comprises of three rooms, an entry laboratory, a wet laboratory and the cryogenic room. Outside the facility is a liquid nitrogen bulk tank, which holds 3,000 gallons. This liquid nitrogen is piped into the Frozen Tissue Lab and keeps the cryo-vats cold. This large bulk tank also gives the facility over three months of freezer time, between fills from a delivery truck, without power or anything else

AMNH scientists need to give the staff a day's notice to get into the Entry Laboratory and a week's notice if they are bringing in a lot of samples. The facility contains a biological safety cabinet, which is to protect the specimen from being contaminated as well as to protect the staff from anything that the specimen is carrying. These cabinets can be cleaned with ultra violet at the end of the day for safety.

Samples are inventoried with the scientist if possible or with the data sheets. The staff prefer to have the data as an Excel file as this can be downloaded straightaway into the database to prevent corruption of the information. Labels are also written and bar-coded straight from the database to avoid errors. The database used is "Freezer Works", a commercially available programme, of which the most recent version has been developed in conjunction with the AMNH. The database manages the space in the cryogenic vats and can tell the user where there is free space. It also tracks each bar-coded vial, noting where the specimen was collected, by whom, and how many times it has been thawed and refrozen (each defrosting slightly degrades the tissue). Each incoming sample is given an ID number and an aliquot number.



Entry Laboratory



Cryogenic room

The Wet Laboratory is where the DNA is extracted and buffers are prepared for the tissue samples. 1.8 ml vials are used. Specific treatments are required for different groups and sometimes up to 1000 vials can be taken for each sample.

The Cryogenic Room has a safety device that detects leaks or how much oxygen is present inside. If the oxygen level falls below 19.5% then the alarm is triggered. 6 large vats which were design for medical use, are maintained at -155°C with liquid nitrogen to prevent the tissue from degrading. Liquid nitrogen is pumped into the tanks from a feeder tank outside the facility and the vapour circulates around a central chamber in each vat. Each vat can operate on its own for one month without electricity or liquid nitrogen and it would probably take about two months before it reached room temperature. Triangular containers hold metal columns and each column has thirteen boxes holding roughly 100 vials per box. This means that each vat can hold approximately 70,000 samples.

In the future, the unit is planning to preserve viable embryos and the frozen tissue collection will support a broad range of research. The Museum of Natural History, which is part of the Smithsonian Institution, has no dedicated frozen tissue facility. Cryogenic vats, similar to those used at the AMNH, are kept within the molecular facility based out at their off-site store.

AMNH & Smithsonian Fish Collections

James Maclaine: Department of Zoology, The Natural History Museum

One of the first things that caught my eye upon entering the fish collections of the AMNH was the aquarium room bubbling away on our left. During my time in the BCG I have seen a few spirit stores come and go and it was nice to see some live animals in fluid for a change. Our guide Barbara Brown kindly allowed us a quick look inside and it was especially pleasant to see amongst the obligatory cichlids, tanks containing *Malapterurus*, the electric catfish. Dr Peter Moller, one of the resident researchers is a keen adherent of these sturdy little fish and their electrical abilities. "Their discharges are beautiful to me!" he exclaimed as we passed his door later on. Beside the catfish was another tank containing a shoal of small goldfish, which Barbara informed us, served primarily as dinner for their whiskery neighbours.

The main spirit collection filled three largish rooms. The jars were kept in wooden boxes, which were ordered systematically upon grey metal racking. The specimens were stored in 75% IMS after the cheaper preservative isopropyl alcohol was found to be dehydrating. We were told that in total the AMNH fish holdings comprised of two million spirit specimens, twenty thousand alizarins, twenty thousand skeletons and contained many important collections from Congo, Gabon and Vietnam. There was also an impressive tally of eight coelacanths, including the specimen that, after dissection, confirmed that these strange fish give birth to live young.

The jars themselves were primarily of the polypropylene plastic top variety which allegedly performed well as long as the store was kept constantly cool, no mean feat in New York where the temperature and humidity undergo massive fluctuations throughout the year.

The collections at the Smithsonian were stored in two main areas, some at the museum itself and many more at a large storage facility offsite. Their fish holdings are ostensibly the largest in the world and comprise of some three and half million specimens, over 8000 of which are types. These incidentally were arranged in an attractive colour scheme with holotypes being painted red and paratypes being white.

Our host this time was Susan Jewett who kindly showed us round the museum store and detailed to us the saga of their glassware problems. It seems the Smithsonian curators are not the greatest fans of ground glass breed of container, even going so far as to throw quantities of them away, a fact that raised a few eyebrows amongst our group. Instead the preferred jars were of the screwtop and Le Parfait variety, and it was interesting to hear about the various gasket trials they had been through before selecting an attractive rubber white variety.

We visited the offsite store the following day, a short bus journey outside of Washington. This was an entirely different proposition to the main museum and basically resembled a huge gloomy warehouse. As our guide on this day was an invertebrate person (as in she worked with them, NOT that she was devoid of a spine) I wasn't able to glean much information about the fish collections stored therein, but it was nonetheless an enjoyable and fascinating experience.

Natural Sciences Conservation in the UK - Simon Moore: Natural Sciences Conservator, Hampshire County Museums

Appraising a conservation specialism can open up so many cans of worms that it frequently just isn't worth the effort! Assessing the quality of work of past conservators who hadn't the technological backup or experience that we all share can skew the perspective even further.

Of all the heritage-based conservation disciplines, natural sciences has always been near or at the bottom of the heap. We may have read articles about 'stuffed animals' in the *Sunday Times* (11th May, 1997) by John Harlow who pointed out that taxidermy might be seen as being 'non-PC' by HLF advisers. Two articles on the subject have also appeared in *Museums Association Journal* (1997 and 2002). The more recent by Catherine Croft, particularly reviewed the status of taxidermy in museum collections and the changing attitudes of both professionals and some of the public towards taxidermy specimens (September 2002). At least she could give a more positive, forward-looking and independent view even though she forgot to mention that these specimens could be conserved or saved.



These Crakes were mounted by Edward Hart of Christchurch in the 19th century. A time when the political correctness of actually killing specimens for mounting would not have been considered! Despite this, the birds have been well prepared and have already stood a long test of time. A record of local topography has also been preserved in the watercoloured diorama showing [somewhere over the rainbow] as it was at the time.

Unfortunately there are still those who denigrate our specialism to the care of 'stuffed birds' suggesting a lack of knowledge, or perhaps simply the desire to be controversial? What they have failed to realise is the actual situation facing natural science conservators at present. Owing to the slightly squeamish-inducing aspect and low financial value of most specimens, many have turned aside from this path with such negative comments as dealing with collections of 'pressed plants', 'nasty (smelly!) things in glass bottles', 'chunks of rock', 'dusty animal skins' and the inevitable 'stuffed birds'. However it is dressed, there seem to be few takers for this most challenging of conservation specialisms. Even more alarmingly, these people don't seem to appreciate the scientific importance or even the social history aspect often attached to such collections!

There are some excellent articles written about dust types and their effects, yet how many PhD's have been written about environmental dust degradation on feather proteins or chemical changes occurring in mammal fur when treated with preservatives? You may find them to have been written by conservators of ethnography. Across the Atlantic Ocean you can find such theses in large numbers.

How many natural science conservators are there in the UK? I can think of about 5, even though some of

them lean more heavily towards geology and one other is multi-disciplinary. There are none, apparently, in Ireland! Apart from conservators, such as myself, who else shares my burden of work? Curators have some knowledge and will perform limited tasks in this area with advice. Taxidermists invariably turn their hands to repairing taxidermy specimens and study skins but there are still many other gaps in the biological sciences along which path only a very few know how to tread.

On a historical note, some will remember the gradual drawing together of multi-disciplinary conservators, curators and taxidermists during the late 1980s and early 1990s. Some were lucky enough to attend the Madrid Natural History Collections International Symposium in 1992 where a group of us met to form our own UK natural sciences conservators' group. Since its inception in 1993 the Natural Sciences Conservation Group (then as a section of UKIC) has striven to spread the word about the importance of Natural Science Conservation and Collections and has done well to promote the discipline. Now it has merged with the Biology Curators Group to become the Natural Sciences Collections Association or NatSCA. In 1996 there was another International Congress (this time) hosted at Cambridge and feelings ran high but since then, the situation with natural science conservators has gone rather quiet. Many freelancers in this specialism have either changed direction or gone into full-time employment as curators with conservation knowledge. In the meantime no new conservators have been trained, why? Following the Fast Track Accreditation no natural science conservators have applied for the PACR accreditation scheme either!

Lincoln University and de Montfort (Leicester) ran courses that were advertised at the Cambridge Congress workshops. Since then there have been so few takers (if any?) so that the courses were downgraded to distance learning and then removed from the curriculum altogether! Chris Collins initiated an MA course at Cambridge but was then tempted over to the USA. Now he is back at the Natural History Museum and, in collaboration with the V&A and RCA, is reviving the course once again. This is currently the only formal training course of this type available in the UK! NatSCA will continue to run day workshops from time to time and trainers, like myself, will continue to teach those who wish to conserve their collections in both the time-honoured and up to date traditions.

Fourteen years have elapsed since Velson Horie's Manchester Museum spirit collection day and twelve years since Bob Entwistle's second meeting of natural science conservators and curators in the UK. There was a definite buzz for natural science conservation during the 1990s but which has recently disappeared. We seem to have advanced only a little since then!

The problems seem to stem from:

- Finance - poor pay; a conservator's starting salary (of any discipline) in the USA and Canada is already 100% ahead of the UK equivalent.
- Lack of posts – how many NS Conservators' posts are there in the UK?
- Attitude – the ridiculous attitude of the outspoken few towards natural history specimens (not just taxidermy) as being non-PC, as though the 'Dodo bonfire incident' wasn't a serious enough reminder.
- Value of collections – enlightened museums and other Heritage-based organisations cry out for the services of people like myself. Others deem their natural history collections to be so poor that they are not worth saving because they have "such little financial worth" (scientific worth?) and that they just can no longer be bothered with them. So these are just hidden away and then discreetly 'binned' when they are past redemption!

I hope that this will not be seen as a rather overlong diatribe and that I am dispirited, although I am sure that I will be preaching to the converted! On the contrary I am eager to continue campaigning for our specialism and, as NatSCA unfurls its (Archaeopteran?) wings, we can get natural sciences conservation to be taken more seriously and as an essential discipline by the Heritage Community as a whole.

CONSERVATION FOCUS

Requests:

Request for Information

The School of Biology, University of Leeds has recently appointed me, to carry out a research and databasing project funded by the AHRB. The subject of the project is the Ida Roper collection, which consists of approximately 10,000 British plant specimens. The four core aims of the project are to put the handwritten inventory onto a computer database and catalogue in greater detail a selection of the specimens, to digitize a smaller sample, research Ida Roper and create a project web-site.

I would like to hear from anyone who is, or has, carried out databasing of a similar collection to share knowledge and experiences. We are also trying to decide how to select the specimens, which we further catalogue, so if you have any thoughts on criteria please let me know. Finally, if you have any information that you think is relevant to any part of the project please don't hesitate to contact me.

Thank you very much for your time and I look forward to hearing from you.

Contact Details:

Mary Beckett

Documentation Officer (Herbarium), School of Biology, Louis Compton Miall, University of Leeds, Leeds, LS2 9JT, (0113) 343 2885, e-mail: bgymeb@leeds.ac.uk

Call for Papers

The Publications Committee of the Objects Specialty Group, American Institute for Conservation (hereafter OSG Pubcom) is requesting papers for a special issue of the Journal of the AIC devoted to the memory of Carolyn Rose. It is well known that Carolyn was a conservator of anthropological and natural history collections at the National Museum of Natural History. She was at the forefront of promoting preventive conservation techniques, of providing training in ethnographic conservation and collections care, and of raising both the national awareness and the funding for preservation. It is therefore these areas that will be the focus of this special issue. Abstracts are due by September 15, 2003.

Those needing further information, or interested in contributing should contact a committee member: Ellen Pearlstein (epearlstein@hotmail.com), Lisa Bruno (lbruno@hotmail.com), Leslie Gat (lesliegat@hotmail.com), Elizabeth Hendrix (ehendrix@MIT.EDU), or Won Ng (w y ng@hotmail.com)

Courses:

Fungal Facts - Solving Fungal Problems In Heritage Collections

Location: Natural History Museum, London, 06 November 2003

Tutor: Mary-Lou Florian

This one day course of lectures and discussion is aimed at collection managers, conservators, and museum and gallery staff who need to know about prevention, control and eradication of fungal infestation. Topics covered on this course include :

- relevant fungi; their classification and nomenclature
- where do the fungi come from?
- the conidium: its importance in causing infestations and prevention; germination and vegetative growth parameters of fungi
- relationships with water vapor and water
- the key to prevention
- infestation: fungal structures and products
- changes due to an infestation in different materials: paper, textiles, protein materials and wood
- review of conservation methods used for removal of fungal structure on infested material
- monitoring the air (bioaerosol) in collection areas
- health hazards of airborne fungal structures
- disaster preparedness

Course Size: 25

Price: £ 115.00 / \$ 180.00

For details, please contact:

Alice Thomson

International Academic Projects

Tel: 44 207 380 0800

e-mail: alice@academicprojects.co.uk

Preventative Conservation in Museums, Galleries and Archives

A series of modular courses at The Natural History Museum incorporating and building upon the successful *Insect Pests in Museums*, and of interest to all those with responsibility for natural history specimens, ethnographic collections, textiles etc.

29th March: *Storage & Handling* - principal contributor Chris Collins, Registration £60.

30th, 31st March: *Insect Pests in Museums* - principal contributor David Pinniger, Registration £120.

1st, 2nd April: *Environmental Monitoring* - principal contributor Chris Collins, Registration £150.

Further details, including registration forms, available from Paul Ratcliffe, Department of Palaeontology, The Natural History Museum, Cromwell Road, London SW7 5BD

e-mail: P.Ratcliffe@nhm.ac.uk

Courses:**ICN international courses and masterclasses for conservators 2003**

Instituut Collectie Nederland, Amsterdam

- Aerosols in the field of paper conservation

The introduction includes the presentation of properties and physical behaviour of Aerosols that are used in paper conservation. The penetration behaviour of aqueous consolidation solutions for pigmented surfaces and the fixation of water sensitive dyes will be highlighted to prepare for the practical part of the workshop. The participants will be introduced to the existing misting devices and will practice on prepared dummies to be consolidated and to be fixed including the treatment of ink corroded papers. A variety of adhesives with different concentrations for consolidation and the advantages and disadvantages of different misting devices will be discussed and evaluated.

Date: 25, 26, 27 November 2003 (3 days)

Instructors: Professor Dr. G. Banik

Andrea Pataki (Staatliche Akademie der Bildenden Künste, Stuttgart)

Price: Euro 695, -

Contact: ICN - ANGENIET BOEVE (angeniet.boeve@icn.nl) or MONIQUE DE LOUWERE (monique.de.louwere@icn.nl)

'INSECT COLLECTIONS' MEETING

**for Natural History Curators
19th January 2004 at The Natural History Museum, London**

A meeting for the general Natural History Curator, or anyone else responsible for insect collections. The purpose of the meeting is to provide guidance in collections care and maintenance - storage, pest control, new acquisitions, etc. For the more ambitious, there will also be demonstrations of a few specialist techniques. Dry, spirit and slide-mounted collections will all be considered.

Organisers:

Howard Mendel (The Natural History Museum)

Darren Mann (Oxford University Museum of Natural History).

Please book early as numbers will be limited.

For a programme and booking form contact:

Howard Mendel

Department of Entomology

The Natural History Museum

Cromwell Road

London SW7 5BD

e-mail: h.mendel@nhm.ac.uk

Meetings:**NOOX³**

Papers, presentations and poster sessions are invited for the 3rd Conference on Oxygen Free and Reduced Oxygen Environments to be held jointly by the British Library and the NHM, November 3 – 4 2003 at the British Library.

Following on from the successful NOOX meeting held in Cardiff in 1999, this conference will review the use of oxygen free and reduced oxygen environments for the long-term storage and short-term treatment of heritage and cultural objects and archives. Topics to be covered will include; microenvironments, stability and use of barrier films, IPM and the use of oxygen free environments for pest infestation, effects of oxygen on museum and library specimens and methods of oxygen removal. The second day of the meeting, to be held at the NHM will be given over to practical demonstrations of the use of oxygen free environments in museums and libraries. Practical sessions will be held on the use of oxygen free environments and controlled environments for pest control and long-term storage.

Cost: £75 (with a reduction for students)

Contact: Chris Collins for information, registration and how to submit a poster or paper.

e-mail: chris.collins@nhm.ac.uk

General:**Online Journal**

University of Leicester, Department of Museum Studies' online journal, '*museum and society*', was launched in March 2003 as an independent peer reviewed journal which brings together new writing by academics and museum professionals on the subject of museums. It aims to be both international in scope and at the cutting edge of empirical and theoretical research on museums. '*museum and society*' is edited by Gordon Fyfe (Keele University),

Kevin Hetherington (Lancaster University) and Susan Pearce (University of Leicester). It is an interdisciplinary journal with a wide ranging interest in all issues associated with museums and other places of public culture concerned with collecting, exhibiting and display. The journal is a successor to the series '*New Research in Museum Studies*' which was published by Athlone Press from 1990 to 1997.

'*museum and society*' will appear three times a year (March, July, November) and is open access and free to all individuals and institutions. However, we request that users who wish to take advantage of the free access facility register with us first. Those wishing to receive e-mail updates on forthcoming volumes, events and associated publications may also wish to register.

We welcome submissions of articles and reviews in these and related areas of museum research. All articles submitted to the journal are peer reviewed before being considered for publication.

Issue 1(2) of *museum and society* is now online at
www.le.ac.uk/ms/m&s/Issue_1,2.html

General:**ICOM-CC 2002 Pre-prints NOW available**

13th Triennial Meeting, Rio de Janeiro, 22 September - 27 September 2002.

Edited by Roy Vontobel, ICOM Committee for Conservation. London: James and James, 2002.
2 volumes: x, 962 p, ill, index. 34 Poster session abstracts. ISBN 1-902916-30-1.

May I draw your attention to the most recent cutting edge ICOM Committee for Conservation publication. The ICOM-CC pre-prints from Rio de Janeiro. This two-volume publication offers a unique opportunity to discover the current status of activity worldwide and across the full range of conservation disciplines at the highest level:

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Call for Nominations - SPNHC

The Election Committee of the Society for the Preservation of Natural History Collections announces that nominations for the 2004 election will be received by the Committee Chair from now until 31 October 2003.

Members participating in this election will be selecting a President-Elect, Secretary, and two Members-at-Large to take office in May 2004. The office of President is intended as a six-year leadership commitment - two as President-Elect, two as President, and two as Past-President; the By-laws of the Society include procedures if circumstances arise that prevent serving through the three offices. The Secretary is elected to a two-year term and can be nominated for re-election. The Members-at-Large serve three-year terms and will work closely with both Council and the Committee Chairs to help co-ordinate the implementation of the "Five Year Goals and Objectives".

I encourage all Active and Honorary members to think about their colleagues who are active in SPNHC and propose them for nomination. Our society depends on both the dedication of our Council members and the involvement of our membership in choosing people who will serve the Society.

To submit a nomination or for more information on the election process please contact the committee chair, Richard K. Rabeler:

Telephone: (734) 615-6200

Facsimile: (734) 647-5719

University of Michigan Herbarium, 3600 Varsity Drive, Ann Arbor, MI 48108-2287, USA.

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