



<http://www.natsca.org>

## The Biology Curator

---

Title: B.C.G. Study Trip 1999 National Museum of Natural History and Naturalis, Leidin

Author(s): Campbell, A., Crimmen, O., Davidson, S., Jagger, E., Spencer Jones, M., Maclean, J., Purewal, V., Valentine, C. & Way, K.

Source: Campbell, A., Crimmen, O., Davidson, S., Jagger, E., Spencer Jones, M., Maclean, J., Purewal, V., Valentine, C. & Way, K. (2000). B.C.G. Study Trip 1999 National Museum of Natural History and Naturalis, Leidin. *The Biology Curator, Issue 18*, 3 - 8.

URL: <http://www.natsca.org/article/406>

---

NatSCA supports open access publication as part of its mission is to promote and support natural science collections. NatSCA uses the Creative Commons Attribution License (CCAL) <http://creativecommons.org/licenses/by/2.5/> for all works we publish. Under CCAL authors retain ownership of the copyright for their article, but authors allow anyone to download, reuse, reprint, modify, distribute, and/or copy articles in NatSCA publications, so long as the original authors and source are cited.

also planning a meeting looking at documentation and performance measurement, which will be affecting everyone, as a result of the introduction of Best Value - some of you will already be feeling the effects of that.

Looking ahead to 2001, we are hoping the foreign trip will be to Boston and New York. As many of you will know, we reluctantly decided to shelve the St. Petersburg trip as it looked like it was going to cost in the region of £600 per person, so we hope that we can make our American venture as reasonable as possible - start saving now! We also intend to have a session at the MA conference, although details of the venue for 2001 have yet to be decided.

We are developing a new policy with regard to obtaining papers for publication in the journal, linking each issue to a particular meeting or theme. However, it takes time for these things to become a reality and consequently the current edition of the newsletter is rather thin as a result. Hopefully this will change for the next issue, but, in the meantime, please don't hide your lights under bushels, but see if you can generate something for the newsletter yourselves - we are not only looking for long articles (although they will be very welcome) but also for short notes, comments, announcements etc. Cheers.

Steve Thompson, BCG Secretary

## Notices and Requests

### Far Side at your Museum?

The University Museum of Zoology in Cambridge is interested in bringing Gary Larson's 'Far Side of Zoology' cartoon exhibition over from America for a UK tour, probably in 2001-2003 if enough other museums are involved to make the costs feasible. Gary Larson himself is keen to see the exhibition tour in Britain or Europe. If your museum may be interested in taking part in a tour, please express your interest to:

Sarah Bushell at the University Museum of Zoology, Cambridge. Tel. (01223) 336650 or e-mail

### Request for egg boxes

Liverpool Museum has become one of the main depositories for confiscated egg collections over the last few years, and we have just had a new secure store built specifically for egg cabinets. Unfortunately, we now have a serious lack-of-boxes problem. We have recently been (very kindly) given a number of glass-topped boxes to suit medium sized to large eggs, but are desperate for boxes suitable for housing small clutches such as passerines and have no

budget to buy more than our present small stocks. Can anyone help? We will come and get them!

Clemency Fisher, Curator of Birds & Mammals,  
Liverpool Museum, William Brown Street, Liverpool  
L3 8EN. Tel. 0151 922 7945. email:  
clemf@nmgmzoo2.demon.co.uk

## Chillingham Cattle – A request for Information

A research project aimed at investigating the morphometric and genetic variation of the Chillingham cattle is being planned in collaboration with several different researchers and institutions in the U.K.

For this purpose, we are trying to determine in which collections specimens of the Chillingham cattle are currently held in the U.K. and to catalogue these remains.

If your museum should have any skeletal or skin specimens of the Chillingham cattle, we would be grateful for any information in this regard, particularly what skeletal elements are present, year of acquisition and year of death of the animal, sex and age data.

If the museum agrees, we would be interested in visiting the museum later this year to photograph and measure the specimen/s and take a small sample of either skin, bone or tooth for DNA studies.

All information resulting from our study will be made available to the museum, and full acknowledgements given in any publications or catalogues resulting from our research.

Please Contact: Liora Kolska Horwitz, Dept. of Evolution, Systematics and Ecology, The Hebrew University, Jerusalem 91904, Israel.  
Mail: lix100@excite.com  
FAX: 972-2-6584741

## Conference and Meetings Reports

### B.C.G. Study Trip 1999 National Museum of Natural History and Naturalis, Leiden

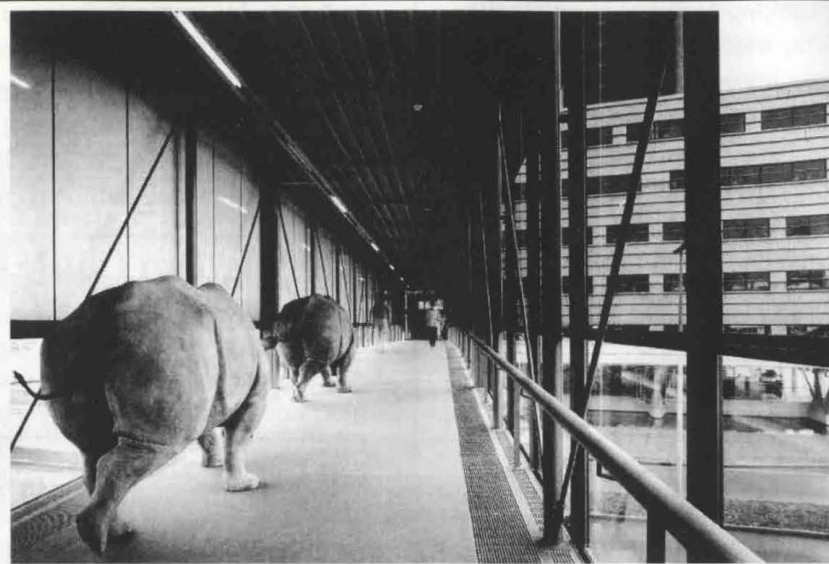
The entrance area to the National Museum of Natural History and Naturalis, complete with lecture theatre, conference room, restaurant, shop and display area, is located in part of the 17<sup>th</sup> century plague hospital, a large square building with a central courtyard, surrounded by a little moat. This then connects to the other two buildings via a raised walkway which crosses over the main road and a couple of small canals. This second area contains the main public galleries (Naturalis) and the huge collection storage



tower. On our arrival we were warmly welcomed by Dr Jan Krikken, the assistant director, and some of his curatorial staff (there are 60 permanent staff including 24 research curators, 30 collection technicians and 4 clerical staff).

After coffee Dr Krikken gave us a short talk detailing the moving of the collections to the new tower and

outlined some of the problems they had encountered. One point he emphasised several times was that *nothing* should be taken for granted at any time during an operation of this magnitude, and that work should be constantly monitored. For example, he explained that after the building had been signed off, the floors in some storage areas had been found not to be level, this only became evident when the collections furniture was being fitted. In one case a difference of 10cm from the back to the front of a store had been noted, a problem that eventually had to be dealt with by laying a liquid screed. It transpired that the main drawbacks of the new facility were a lack of visitor



Naturalis had an interesting and some would say robust approach to live animal displays. (Model Rhinos in entrance tunnel)

space and a rather unfriendly working environment; other problems would become apparent during our tours.

The new storage facility was opened in April 1998 and the entire move, of 15 million specimens in 6 million lots, took over a year. Material was brought from seven buildings around Leiden and an outside removals firm who had done

large-scale office moves were employed; staff from the removal firm were trained to handle collections before the move and then treated as Museum staff during it. The old storage building has been renovated and is still used for the storage of large specimens and as a sorting area for new collections; it will also be used by other museums around Leiden. It was stated that the move had provided a useful opportunity for systematic reorganisation of the collections to be undertaken.

After the post-talk discussion we were able to explore the public areas. In the plague hospital building we saw the Nature Information Centre, where the public could source information about the natural history of the Netherlands (in fact all of northern Europe); as well as relevant field guides there were many nice mounted specimens as well as drawers of study skins, invertebrate material and specimens in spirit. After rounding up stragglers from the excellent bookshop we crossed the walkway, where two fine mounted rhinos pace eternally above the road, to the main displays and the storage tower.

The public galleries (which attracted 350,000 visitors last year) have many levels, with mounts and models everywhere; suspended from the ceiling, leaping over barriers, in glass cases, or even (in the case of a large *Architeuthis* squid) lying beneath one's feet. Visually perhaps the most impressive was the Biodiversity gallery, employing a truly ingenious method of displaying botanical material with specimens displayed between huge sheets of glass, although some problems with micro-climates had apparently been experienced. Labelling throughout was quite minimal, with little more than name labels present in most instances. One fascinating idea was the "Treasury" room which at certain advertised times during the day would provide a snapshot view of a



Biodiversity Gallery with effective use of glass display cases



number of the museum's most precious items, serially lit (very dimly) in a clockwise progression followed round by the (<20) viewers. It was noted that a number of BCG delegates appeared to find the interactive feeding display in the Children's Centre particularly absorbing!

One item of particular interest to NHM staff was a window into one of the storage areas for the general public.

This appeared almost pointless as very little could be seen through this rectangle of darkness, but after straining for a few moments the shape of some mammalian specimens could just be made out. We later heard how the curator of mammals had placed a curtain over this window but had been forced to remove it. Only *bona fide* groups and students were given "behind-the-scenes" tours here and the news that The Natural History Museum's new spirit storage would feature an entire huge storeroom being glass-walled and permanently brightly lit for the benefit of the public was met by our Dutch colleagues with polite disbelief.

After lunch the delegates were divided into five groups, one group opting to visit the *Rijksherbarium* (report below). The remainder were taken into the storage tower by members of the curatorial staff. The tower is a separate building within the overall gallery space and linked by a loading bay. It stands over 60m tall (22 storeys) and the architect responsible succeeded in his mission to construct the tallest building in Leiden (it was remarked that this had sometimes appeared to be his main priority). The building is airtight, with 10% fresh air intake at each



Open racking in the bird store. Air conditioning keeps any dust to a minimum..

RH. All the plant is located at the base of the tower. Fire protection consists of Argon gas for spirit material, water sprinklers for dry. Each floor has two storerooms measuring 10x20x3m and there are no internal stairs, use of the external fire stairs is strictly prohibited except in cases of emergency. There

are two lifts, one is dedicated to passenger use, the other, measuring approximately 2x1.5m, for specimen transport. As quite a large number of curators could be in the building at any one time, it was revealed that sometimes they spent more time waiting for the lift than they did in the storerooms.

Security is extremely tight, curators have a smart card that allowed them access to their own specimens, but they cannot use it to get into any of the other stores; staff are not permitted to spend more than two hours at a time in the storerooms. Anything that could possibly cause a spark was banned from areas containing specimens in spirit, this included personal stereos, radios, flash cameras, computers and mobile phones; light switches are explosion-proof. There are wall-mounted telephones outside the storerooms but staff complained that they were often unable to hear them. We were told during our introductory talk that the tower occasionally moved in the wind causing the jars to tremble slightly on the shelves; this was observed to happen during our visit but the fish curator said that it was down to poor shock proofing in the elevator shaft which is lined with galvanised steel and concrete. As the tower was mainly constructed of steel and glass, vibrations could travel well throughout the building. There is no water supply to the storerooms, there is a preparation area on the ground floor equipped with formalin benches, fume cupboards and spirit "on tap"; walk-in freezer facilities and a gas chamber were also available in this area.



Fish Spirit Store

circulation, and is kept at a constant 17° C and 50-55





Mammal Store

The storerooms are windowless and fitted with rows of open (doorless) racking with sliding shelves a metre wide. The wet and dry fish collection for example comprise around half a million specimens with the spirit collections occupying 290 sets of shelves. The main fish collection was started in the 1820s although their oldest specimen dates back to 1734; of special interest was the material collected by Bleeker, an important 19th century ichthyologist, of which the Lieden museum has the most important collection in the world, including many types and figured specimens. It was interesting to see that many of the spirit specimens were stored in glass jars sealed with wax, excellent for preventing evaporation but not conducive to easy specimen accessibility; Kilner™ jars, where used, were fitted with silicon rubber gaskets. Registration numbers were painted on the outside of the jars and a system of coloured dots used to indicate type or otherwise important specimens. Large specimens were in metal tanks with rubber seals, some of which were observed to be leaking.

In the mammal and bird storage areas mounted material was housed on open Dexion-style racking; covers were not considered necessary since the air-conditioning meant that there was little or no dust. An estimated 600 type specimens were housed separately in a lockable cage. Study skins were stored in drawers. During the introductory talk Dr Krikken had

mentioned that the move from the old storage had revealed problems with *Aspergillum* growth on the outside of some of the glass jars. All were cleaned thoroughly before the move by gassing with formalin vapour and then 10 people were employed to wash all the jars with alcohol. Some mould had been spotted on mounted mammal specimens and these were removed from storage areas for immediate treatment. Additionally, a pest control company (Harbour Quarantine Service of Rotterdam) is brought in twice a year to spray the entire building with contact pesticide.

At the end of the afternoon, delegates reassembled in the public galleries where the Chairman of BCG, David Carter, gave a short speech thanking Dr Krikken and his colleagues and presenting them with a copy of *Voyages of Discovery*.

### The Rijksherbarium

The Rijksherbarium was founded in Brussels in 1829 by King William I. William lived in exile most of his life and saw the impact that French and British collections were making on scientific progress. The collection was first housed in a converted convent under the directorship of Dr C.L. Blume, the outstanding Malesian botanist. In 1830 the Belgians started an uprising against the Dutch whilst Dr Blume was away on his second honeymoon, but as luck would have it, Philipp Franz von Siebold [Fig.1] was passing through Brussels and realising the significance of the revolt, arranged with J.B.Fischer, the director's assistant, for the transfer of the collection by cart to Leiden.



Fig.1 Philipp Franz von Siebold



For ten years, 1988-98, the Rijksherbarium/Hortus Botanicus (RHHB) was a combination of two complimentary institutes; a museum herbarium and a garden, both with long chequered histories. The Hortus Botanicus or Leiden Botanic Garden [Fig.2] was founded in 1590 as part of the university and had a strong focus on Southeast Asia, influencing the introduction of many ornamental plants into Europe. 1998, however, was a time of significant change for the Rijksherbarium due to government policy and it has now merged with the Herbaria of the Universities of Utrecht and Wageningen to become the National Herbarium of the Netherlands. The Hortus Botanicus is now an institute in its own right.

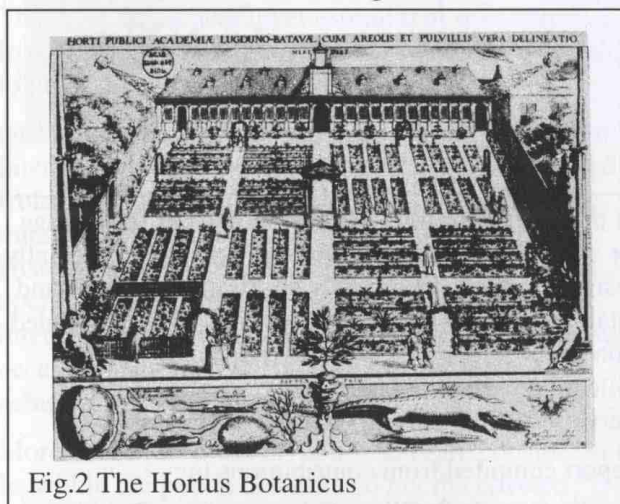


Fig.2 The Hortus Botanicus

The Rijksherbarium is now situated in the middle of the BioScience Park in Leiden in a converted computer building, which is shared with the university; the institute has been at this location since 1995. Here we were met by our hosts, Professor P. Baas, the director, & Mr C.W.J. Lut, the librarian. Prof. Baas first explained the nature of the institute's work to us. The herbarium mainly focuses its research endeavours towards Malesia and Europe (especially the Netherlands) using multi-disciplinary approaches including historical biogeography, geology, scanning electron microscopy and DNA sequencing. Many of the staff teach university courses and supervise PhD projects and are also responsible for the plant displays in *Naturalis*. The institute has in-house publishing, which results in low cost specialist publications, especially for those in developing countries. The Rijksherbarium advise on local, regional and national declines and improvements of flora in the Netherlands e.g. *Cochlearia danica* L., a salt tolerant plant, which was declining, is now making a comeback along motorway ridges due to the national de-icing programme.

After the general introduction, Prof. Baas led us through to a locked room which holds all their pre-1800 collections [Fig.3]. Here, he showed us many old historically valuable Herbaria, which included the Herbaria von Siebold and Rauwolff.

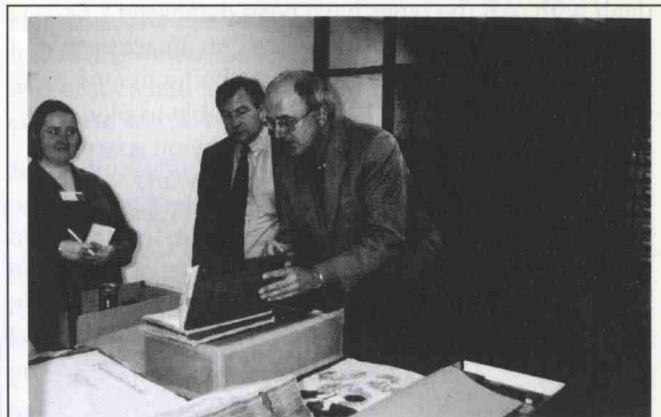


Fig.3 The pre-1800 herbarium collections

Rauwolff was a physician from Augsburg, who collected in 1665 in the Middle East and Palestine. During the 30 years war this volume was in the possession of Queen Christina of Sweden but later it turned up for auction in London where it was bought for the herbarium. Philipp Franz von Siebold was another physician who cured cataracts for the Japanese nobility, in return for which he was presented with extensive collections [Fig.4].

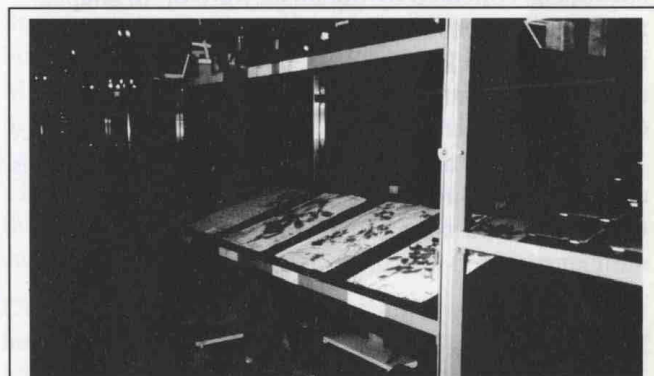


Fig.4 The von Siebold collections on display in *Naturalis*

The general collection is taxonomically arranged and housed within specially made cardboard boxes on open metal shelves [Fig.5].

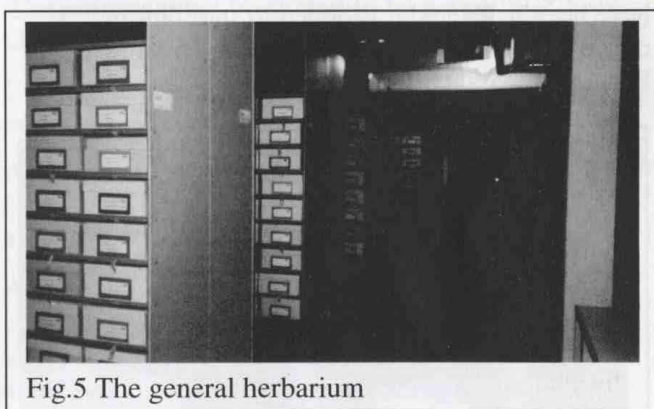


Fig.5 The general herbarium

The collection is stored in this static manner so that researchers do not have to move large numbers of individual specimens at any one time. Each sheet is registered using a bar code system, with approximately 80,000 specimens still waiting to be



dealt with. All the types have been databased, photographed, digitised and placed on an accessible web site and all new specimens are being treated in a similar fashion. The staff have been able to plan for the future and there is plenty of expansion space. Incoming new material, once frozen, awaits incorporation on open shelves [Fig.6]. Precautions against pests include the periodic use of CS gas to fumigate the collection and regular placements of insect light traps.



Fig.6 Material awaiting incorporation

Prof. Baas then took great delight in showing us the wood collection on which he works. He explained that specimens collected by botanists were of all shapes and sizes but those collected by foresters were neat rectangular blocks. The Rijksherbarium has a large collection of samples from what was Dutch New Guinea (Indonesia) and this has been augmented since 1968 by further duplicate material from Kew Gardens and the Commonwealth Forestry Commission in Oxford. All the samples have their registration number punched into the block.

We were then shown the Rijksherbarium Library by Mr C. Lut. He explained that the collection contains 35,000 books, 70,000 journals, 100,000 reprints, 90,000 microfiches and 50,000 illustrations. The library is managed by four and half members of staff, with a bookbinder employed part time. The collection is now housed on metal shelves with no book beyond reach and plenty of expansion space. Computerisation of this literature started in 1970, over 150,000 titles have been listed and it is hoped to start putting this data onto the Internet next year. Rare volumes are kept in a separate locked room [Fig.7].



Fig.7 The rare books room

These included the first catalogue of Hortus Botanicus from 1660 with a plan of the garden; a 1564 cookery herbal; a Dutch 1771 version of Christ. Jacob Trew's "*Uitgezochte Planten*" of which only 57 copies are known; and three very rare volumes of *Natural Printing* by W. Alpherts (1859-1862) [Fig.8].



Fig.8 The Alphert volumes of Natural Printing

At the end of our tour, Mr Lut showed us the storage for some 4,500 original watercolours held in specially designed boxes and recently digitised, conserved and catalogued by an outside conservator. These included wonderful original drawings from the van Royen collection used by Seba in his descriptions. A marvellous finale to our Rijksherbarium visit.

Report compiled from contributions by:-

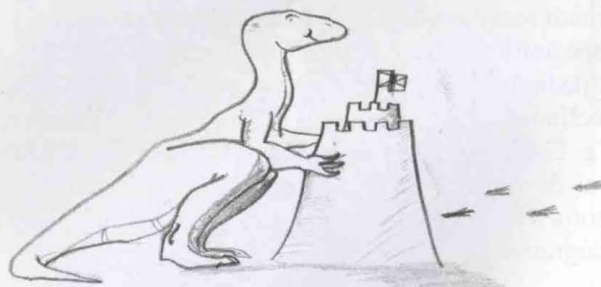
Amelia Campbell, Oliver Crimmen, Sean Davidson, Eiry Jagger, Mary Spencer Jones, James Maclean, Vicky Purewal, Clare Valentine and Kathie Way

## Access to Collections

### BCG, GCG, NSCG Joint Conference, Scarborough

#### April 3-4<sup>th</sup> 2000

Two days in sunny Scarborough!



As the rain closed in, I wondered if I would ever reach my destination. Scarborough and the Spa Complex seemed so far away as yet another tractor pulled out in front of me. After a somewhat slow drive I finally arrived at my very first Biology