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Useful Websites

Conservation online: www.palimpsest.stanford.edu

American Institute for Conservation journal:

www.aic.stanford.edu/jaic/

SPNHC: www.spnhc.org

Documentation of Vertebrate Collections at the National Museums & Galleries of Wales

Why document collections?

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There are many reasons to document museum collections but most can be grouped under two headings.

Access:

- Enables fast searches (important for data connected with large biological collections)
- Ability to link many different terms to aid searching
- Makes a wider variety of formats available e.g. web, interactive programmes etc.
- Which in turn enables easier sharing of information
- Easy duplication of data

Accountability:

- Ensures the Museum knows what it has got
- Preservation of information
- Improves collection security
- More efficient collections management e.g. loans, movements, conservation etc.
- Supports demands for audit

NMGW's vertebrate collections consist of:

- 11,000 bird study skins (all on database and on web)
- 7,500 clutches of bird eggs (400 clutches of Biodiversity Action Plan species on database)
- 4,000 osteological specimens in two separate databases. One of 1100 traditional osteological specimens including 120 articulated skeletons of a wide variety of mammals and birds which are an excellent resource for education and one of the more frequently used parts of the collection. The other database is of the Barbara Noddle collection which consists of 2200 lots of domesticated animal bones. These are mainly sheep with smaller numbers of cows, pigs and a variety of other families. This collection is of most use for comparative studies with archaeological finds.
- 1,900 mounted animals (all on database and on web)
- 1,600 fluid preserved specimens (none on database, although work should start shortly in topping up fluid levels and databasing at the same time)
- 1,100 mammal study skins (all on database)
- 258 bird nests (all on database)
- c. 15,000 glass negatives (none on database, massive headache as storage conditions not up to conservation requirements but costs of improvements would be high. NMGW is moving towards a centralised photographic archive which may well result in their documentation and proper preservation).

NMGW adopted a central CMS in 1992 choosing Micromusee's database system which consists of:

A general database developed from a library system and used for the documentation of the art and archaeology collections

A natural history database developed as separate system and used for the zoology, botany and geology collections.

Because of the way CMS has developed (it was until relatively recently still a Dos based system) it has a number of drawbacks some of which will probably never be fully rectified, these include:

- No front end for web use (should be due in 1-2 years)
- Cumbersome data input
- Cumbersome report / template facilities
- Export ability limited to Excel followed by considerable formatting
- No ability to import records

For this reason the CMS is used as the central accession system as it contains all the accession numbers issued in the zoology section since the early 1900s (work is progressing to do the same for the botany section) and records of all new accessions are added to the system giving an almost complete list of accession numbers used by the department. For day to day operations FileMaker Pro is used.

Since the advent of readily available desktop computers some sections of BioSyB have used Apple Macs. Unfortunately CMS has never been compatible with the Mac operating system and as a result these sections used FileMaker Pro to document certain areas of the collections. In about 1997 FileMaker Pro became available for use on PCs and was used in preference to CMS for day to day operations such as:

- Item documentation of molluscan, marine invertebrate, entomological and vertebrate collections
- Loan documentation
- Catalogue production
- Web publishing as searchable database

FileMaker is very user-friendly, possibly one of the best on the market for ease of use. Anyone with a reasonable grasp of computers should be able to create new databases with customised layouts very quickly. With a little

knowledge of databases it is easy to set up relational files and lookups to speed data entry and reduce possible input errors.

We have used FileMaker to publish catalogues of several sections of the collections including mounted animals and several parts of the herbarium. The herbarium records are held on the CMS and must be taken through Excel to clean up first but once received from Excel a catalogue can be ready to print in 30-40 minutes. Report production can often be aided by having a sort code available which makes sorting records into the most desired order easier. It is best if these are implemented from the start of a database but can be added later.

As our vertebrate collections are small and mounted specimens cover many orders it was decided to incorporate all the higher taxonomy (Class, Order, Family, Sub-family and Genus) into one database. The addition of a code for each record in each field and a calculation field which puts them all together means we can sort any of the databases by systematic order rather than alphabetical which is the result using normal sorting. The code for the genus Homo, for example, would be:
Mammalia = 10
Primate = 14
Hominidae = 013
Sub-family (blank) = 00
Calculation field = 10.14.013.00

Web access to searchable databases was another reason for choosing FileMaker Pro. There was a desire to get BioSyB databases available online but the development of a front end which would allow CMS to be searched online is still, even now, some way off so FileMaker was an obvious choice. Databases can be published online with very little effort, especially with the most recent versions, currently 5.5 (BioSyB uses version 5). However, it was decided to get ours developed by an external company. Our databases can be accessed through the NMGW site at www.nmgw.ac.uk.

Future developments:

- Databasing of the rest of the egg collection is to start next year. With the work expected on the fluid collections this will

mean that, with the exception of the negatives, the entire vertebrate collection should be available electronically within 2 years.

- A programme of photographing the most photogenic specimens and adding these images to some of the databases e.g. mounts and skeletal should enhance their usefulness.
 - In the longer term we would like to develop a database to be used in our 'hands on' gallery which would link to the current databases but enable a user to explore as little or as much as they want.
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