Common Principles on Digital Data produced by External Users of NH Collections

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Introduction

The present document was created within the framework of SYNTHESYS3 NA2 Objective 1 Task 1.1 / "Develop policies for virtual CM and integrate JRA outputs", which is led by the Museum für Naturkunde, Berlin (MfN), with the participation of the following institutions: NHM, RBGK, RBGE, UCPH, CSIC, RMCA, NHMW and NMP. It is a result of research on available digital data management policies as well as other principles and adapted to the requirements of European institutions housing Natural History (NH) collections based on discussion with project partners and CPB[1] members.

Aim

On the basis of international agreements and regulations as well as general collection policies, this document aims at common principles for the management of digital data produced by external users of NH collections.

The policy statement aims to help maintaining the highest professional standards for the management of digital collection data by Museums and other institutions with digital collections. It creates a framework for the management and conservation of digital data produced by external users of NH collections hosted by European institutions. It clarifies authorities and responsibilities and guides the necessary workflows for implementation.

Background

Gathering and providing digital collection data has a number of clear benefits for both users and owners of collections:

- Support of the physical specimen and its management by its associated digital data, e.g. by providing additional information to the object or as a backup;
- Preservation of national and international heritage and prevention of loss of (physical) objects, knowledge, and connections due to minimization of object handling and shipping;
- Facilitation or even enabling global and efficient research by facilitating broad access to the collection, focussing, reducing and increasing the efficiency of physical visits to the collection or by minimizing the object handling and the use of microscopes and other magnification equipment.

External users often have excellent knowledge on different aspects concerning NH collections (e.g. on taxonomy, localities, etc.) and could help to utilise and update information to collection data and material. However, this information is not always made available to the institution by external users and the institution does not profit from this valuable source of information. In other cases information is left as notes on paper somewhere in the collection which causes more work to limited institutional staff and errors may occur in the process of transcription.

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[1] Collection Policy Board under the umbrella of CETAF

Hence, it would be a great advantage if external users of NH collections would contribute directly to the collection database. However, this is often not feasible due to the complexity of these databases and due to the fact that data need to be validated before they are entered into the database.

Definition of terms

Digital data

Digital data of concern in this policy statement are data associated with collection material. They may derive from physical or digital objects held in the institution or from the collection itself. They may comprise of scientific raw data as well as data as products of a creative act in the form of, e.g. texts, digital images, transcriptions, metadata (such as statistics) or datasets. Digital data in this document refers to raw data and images derived from the objects held by the institution and not secondary data produced by the user.

External user (here also: "user")

External users of NH collections may be visitors and guests of the collection as well as borrowers of collection material of an institution. Users will be asked to comply with terms and conditions of access by the hosting Institution

Institution

In the present context, the term "institution" refers to a museum, university department or similar holding a NH collection under one governing body/authority. The institution referred to in this policy statement holds the collection or specimen the digital data of concern are linked to.

Principle

In the present context a principle is an action or way of working that the signatories agree to establish and implement within an agreed time period.

Policy Statement

Declared objective that an institution aims to achieve and establish. It is envisaged that institutions will implement this objective through their own policies and governance.

Specimen

Specimen relates to a single unit of biological or geological origin with associated data such as locality, collecting date, collector etc.

Legal Framework

The signatory institution is committed to the following:

- Follow relevant national ethical codes for museums;
- Endeavour to follow the ICOM code of ethics for museums;
- Abiding by all relevant international and national agreements governing collections;

- Having management policies on digital collections in place that meet requirements of any agreed European or national accreditation standards where possible;
- Follow the Bouchout Declaration ();
- Observe and implement relevant international agreements such as Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), Convention on Biological Diversity and the Nagoya Protocol on Access and Benefit sharing.

General principles for digital collection data

The institution is committed to:

- Valuing the contribution made to the collections by external users;
- Having systems for long term storage and maintenance of digital collection data in place;
- Setting quality standards for digital collection data (in terms of, e.g. resolution, available metadata and specimen data, unambiguous linkage of data to object);
- Observing any legal or contractual requirements relevant to the collections accessed and data gathered;
- Ensuring the safety, longevity, and long term readability of stored data.

Key principles for digital collection data produced by users

To accomplish the general principle of optimizing management of NH digital collections the herewith undersigned institution agrees to the following:

1. Access to collections for external users will be facilitated where possible and encouraged;
2. All digital data as specified above and annotations of collections produced by external users should be made available to and usable by the institution owning the specimen;
3. Each institution decides which data it intends to keep and to make available;
4. The institution supports Open Access taking *"Good Scientific Practice"* into account. This can mean that data are kept by the institution with an embargo of a specific time on the raw data, e.g. three years to allow researchers to publish the results first before the data are published open access;
5. Users should be informed of data the host institution intends to gather and publish;
6. All necessary forms as well as paperwork will be provided in English as well as in the institutional native language;
7. All relevant forms and paperwork as well as the institutional Management Policy on Digital Collections will be made easily accessible;
8. The User should be asked how they intend to use the data gathered. This information can be used to assist the Institution in refining its practices to meet user requirements;
9. The institution has clear and comprehensible procedures established to deal with digital collection data produced by users, including responsible persons to contact and submission protocols (e.g. submission through a centralised management);
10. Digital data should be provided in a standard format that ideally can be fed directly into the institutions database system (e.g. institutional standard file formats, standard field and data structure for datasets);
11. Producing digital material such as photos, films etc. of collection material by users under conditions of use should be conform to institutional policies ;

12. The User should clearly cite and acknowledge the institution in all outputs and publications based on or including digital data to enable discoverability. This should use the institutions preferred citation structure (e.g. the CETAF Stable Identifier) which should be included in papers as well as submissions to aggregators and online databases (e.g. GBIF, Genbank, BOLD and Morphbank).