**LEONARDO TOI WP1 . Task 1.2.3**

**Consolidated framework Draft Version 2**

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Introduction

The set of competencies below is derived from that produced by the NHM London for its collections staff. The wording has been modified to make it more generic (ie usable in many institutions across Europe) and more easily translatable.

The levels A to D are based on NHML levels of progression however these can potentially be arranged in any way to match local job descriptions, staff structures, regulations and agreements etc.

Several words, phrases and acronyms have been defined in more detail in a glossary at the end of the document. This will be added to when necessary. Words in the Glossary are underlined and in bold.

All cells are uniquely numbered and this system will be used throughout the project even if some are removed . This will ensure tracking back to and compatibility with to the original NHM framework

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COLLECTIONS MANAGEMENT COMPETENCY FRAMEWORK

## SCIENTIFIC CURATOR AND CONSERVATOR COMPETENCIES March 2014

*All scientific curators and Data-basing staff are expected to have such competencies to (Level B)*

*Conservation Core Competency = All conservators are expected to have such competencies to (Level B)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Level AEarly stage career / training level | Level BCurator Conservator |  Level CCollection Manager Senior Curator Senior Conservator | Level DHead of Collections / Collections Leader Principal Curator Head of Conservation | Framework Explanatory Notes  |
| 1. Collections Management, Conservation and Care1.1 Collections Growth & Development. The aim of this particular section is to understand your depth and level of understanding of the collection for which you have designated responsibility, how you work to develop the collection and how you contribute to the wider Collections Strategy. |  |
| 1.1.i. Collections Development Strategy: AssessmentCM CORE COMPETENCY (To Level B)  | 1101A Becomes familiar with collection within designated area of responsibility.Begins to understand the strengths and weaknesses of collection within designated area of responsibility. | 1101B Demonstrates an understanding of the strengths and weaknesses of the collection, e.g. what people want/need; keeping up to date; knowing the gaps etc. | 1101C Establishes criteria to help determine strengths and weaknesses of all collections within area of responsibility. Uses international and national best practise for determining the strengths and weaknesses of the Area of Responsibility  | 1101D Establishes criteria for assessment of strengths and weaknesses collections care and holdings.Uses international and national best practise to determine the strengths and weaknesses of a large collection unit such as a department and relates it to the Museum and external collections |  |
| 1.1.ii. Collections Development Strategy: DevelopmentCM CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level A)  | 1102AProvides data e.g. from collections surveys to inform collection development strategy, under direction. | 1102B Identifies areas suitable for development such as gaps or limited coverage. 1102B (=1101B)  | 1102CImplements collection development strategy with specialist input from team.Contributes to collections development strategy by providing specialist input. | 1102D Develops collection development strategy for the relevant Area of Responsibility.Contributes to Museum strategy and policy on collections strategy and development. |  |
| 1.1.iii. Growth of the CollectionsCM CORE COMPETENCY (To Level B)  | 1103A Suggests possible new items for addition to the collection | 1103B Evaluates the importance of new specimens to the collection. Facilitates donations and acquisitions, e.g. by interacting with amateur collectors. | 1103C Identifies, assesses and develops important opportunities to enhance all collections within area of responsibility, e.g. exchanges with other institutes. Liaises with research staff about acquisition of new collections. Seek and negotiates donations, purchases and bequests as opportunities occur. Identifies opportunities for dispersal, disposal or de-accessioning makes recommendations to Senior Staff.Calculates the growth and estimates storage space needed  | 1103D Identifies, assesses and develops important opportunities to enhance relevant Area of Responsibility. Negotiates for resources to purchase and / or incorporate incoming collections into the relevant Area of Responsibility. Decides on disposals and makes recommendations to senior staffas appropriate. |  |
| 1.1.iv. Fieldwork: Planning and Organization | 1104A Collects information and/or equipment under guidance to support field programmes.Assists fieldwork as part of supervised project or programme. | 1104B Identifies opportunities for collecting/fieldwork. Makes recommendations on what to collect and where. Organises their own fieldwork as part of supervised project or programme. | 1104C Organises and leads fieldwork programmes/projects to enhance relevant collections within area of responsibility supported by internal and/or external funding.Takes control of planning/organisation of necessary documentation for fieldwork, e.g. safety certificates, permits, visas. | 1104DDevelops proposals and secures resources to carry out field programmes/projects to enhance collections in Area of Responsibility.Coordination of fieldwork that might be in common between two units/departments etc. |  |
| 1.1.v. Fieldwork: Practical Experience | 1105A Learns relevant basic field collecting techniques and participates in directed fieldwork. | 1105B Carries out independent and group fieldwork. | 1105C Contributes recognised practical skill set or specific experience. to cross-departmental or multi-institutional field programmes | 1105D Initiates and leads departmental,. large, multi-disciplinary field programmes |  |
| 1.1.vi. Auctions, Trade Shows and Specialist Fairs | 1106A Attends shows under direction or independently. | 1106B Attends shows, assesses material and makes recommendations to acquire specimens.Builds working relationship with community (e.g. professional and amateur palaeontologists and collectors) and specialists | 1106C Decides on acquisition of material and negotiates to acquire within allotted budget.  | 1106D Seeks budget for acquisition at show. Plan annual programme for attending trade shows. |  |
| 1.2 Collections Policies and Procedures. How well do you understand the museum’s policies and procedures? This section looks at your understanding, how you use that to develop policy and what role you play in developing the understanding of others. |  |
| 1.2.i. Collection Policies and Procedures: GeneralCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 1201AFollows collection management procedures. | 1201BFully conversant with institution and departmental collections policies and procedures. Contributes improvements to procedures resulting from changing user demands and scientific developments that are incorporated into the formal written procedures (e.g a Collections Manual). | 1201CManages the required systems for implementation of formal written procedures (e.g a Collections Manual).and collections policies/ procedures in their team and/or area of responsibility.Periodically evaluates procedures to suggest changes/amendments. | 1201DWhen Establishes procedures across the Area of Responsibility and Museum e.g. editor in chief of the formal written procedures (e.g a Collections Manual).Reviews and revises Museum collections policies.Provides advice on collections policy issues to other institutions and museums. Ensure compliance with all collections policies and procedures across all users. |  |
| 1.2.ii. Collection Policies and Procedures: Due Diligence, ABS *etc*.CM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1202AB Keeps up to date and complies with all national and international conventions and legislation in area of responsibility. | 1202B Ensures and monitors compliance with national and international conventions and legislation for team and/or area of responsibility. | 1202D Contributes to development of policy and ensures procedures adhered to at departmental and institutional level Museum are compliant at a national and international level. Ensure compliance with all collections policies and procedures across all users. |  |
| 1.2.iii. Collection Policies and Procedures: DocumentationCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1203A Maintains and generates documentation for specimens or objects e.g. documentation relating to legal requirements of institution, loan documents etc  | 1203B Ensures compliance with policies (e.g. self, visitors, and volunteers). Suggests improvements to specimen documentation policies and procedures. E.g loan documents etc | 1203C Ensures compliance with documentation policies and procedures for all collections within area of responsibility.Follows-up on loan documentation if necessary  | 1203D Ensures policies have effective procedures to work within the Area of Responsibility. Develops new Museum policies. Contributes to national policies on documentation. |  |
| 1.3 Collections Organisation.This section explores how you organise the collection(s) you are responsible for, how do you make decisions relating to planning and physically management of the collection. |  |
| 1.3.i. Underlying Basis for the Organisation CM CORE COMPETENCY (To Level B)  | 1301AAcquires knowledge of the organisation of the collections and the underlying logic. E.g. able to navigate the collections to retrieve material for loans, visitors, enquiries and conservation. | 1301B Has good Knowledge of the organisation of the collectionsModifies organisation based on taxonomic or classification systems in use with agreement of line management. | 1301C Makes decisions on organisation of collections. E.g. taxonomic systemLeads on collections organisation projects. | 1301D Approves and oversees major changes to the organisation of Area of Responsibility, e.g. following new classification system, and prioritises resources. Bids and tenders for resources. E.g. additional storage furniture, space, labour to move collections etc Provides advice on collections policy issues relating to collections organisation to other institutions.. |  |
| 1.3.ii. Physical Organisation and Space PlanningCM CORE COMPETENCY (To Level B)  | 1302APuts material away in the correct part of the collection.Re-labels and re-orders collections as directed in light of taxonomic/ classification changes.Carries out prioritisation/reorganisation/deaccession etc of collections according to space and resources available? | 1302BUndertakes organisation projects within nominated collection taking account of local space and resources, e.g. collection furniture.  | 1302CCritically reviews collection organisation for all collections within area of responsibility.Project manages collection reorganisations.Decides on deaccession of collections and if necessary tactfully rejects potential new incoming collections. | 1302DReviews space planning for Area of Responsibility and assesses short and long term curation requirements.Ensures that above integrates with institution space planning.  |  |
|  |   |  |  |  |  |
| 1.3.iii. Collection MaintenanceCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1303AFollows instructions to curate/maintain /conserve a collection or collections within designated area of responsibility. | 1303BCurates/conserves a collection and assess the resources need to do so. e.g. incorporating backlogs, re-spiriting, rehousing, *etc*. | 1303CPrioritises and reviews curation/maintenance/conservation schedule for all collections within area of responsibility in light of available resources. | 1303DAssesses Collection Area needs and determines overall maintenance /conservation strategy and allocates resources to priority areas. |  |
| 1.4 Risk Management. How do you manage risks to the collection? This section looks at a variety of risks to the collection, it explores how you develop risk management skills in a number of areas and the impact your work has on the museum collections. |  |
| 1.4.i. Collections: Risk ManagementCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1401AHandles material in the correct manner.Can recognise and understand how to deal with the agents of deterioration.Aware of other risks to assigned collections listed in the departmental risk log. | 1401BUnderstands risk management as applied to collections.Implements activities to reduce risks, e.g. actively monitors the risks to local collection. Reports issues to managers and takes immediate action as required.Makes recommendations for amendments to departmental risk documentation (e.g. risk log. | 1401CIs up to date on the latest information and techniques on mitigating the effects of deterioration. Manages and regularly reviews the risks to all collections within area of responsibility. Updates the departmental risk log. | 1401DMaintains the Risk Management Plan for the Department.Maintains risk management plan for Area of Responsibility. Prioritises mitigation for Area of Responsibility.Contributes to cross Museum identification and prioritisation of risks to collections. | Risk management of collections eg see <http://collections.paleo.amnh.org/9/risk-management-and-disaster-planning>Also try http://www.sharemuseumseast.org.uk/shares/resource\_125.pdf |
| 1.4.ii. Collections: Environmental MonitoringCONSERV CORE COMPETENCY (To Level B)  | 1402ACan carry out basic monitoring duties following instruction e.g. can use environmental monitoring equipment effectively.Able to place monitors in best position to gather data effectively. | 1402BInterprets and manipulate data retrieved from monitoring equipment.Provides reports to managers based on retrieved data.Understands Museum’s environmental monitoring system. | 1402CManages the environmental monitoring all collections within area of responsibility. Can carry out an environmental survey of a space and report on suitability to house collections including those on exhibition in galleries. | 1402DRepresents department and Museum on a range of environmental issues. Reviews and approves environmental standards.Advocates agreed Environmental Standards for Area of Responsibility. Uses collated data to develop a strategy for collections care and to inform master plan for development of new spaces and upgrading of old.. |  |
| 1.4.iii. Integrated Pest ManagementCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1403AIs aware of importance of all IPM and quarantine procedures. Able to follow IPM and quarantine procedures with minimal supervision. | 1403BUnderstands and applies procedures for managing pest infestations without supervision. Carries out regular pest monitoring programmes. | 1403CAdvises on management of pest related issues. Reports at departmental level on IPM and co-ordinates monitoring programme.  | 1403DReviews and approves IPM policy and procedures for the Museum.Ensures IPM policy is implemented and adhered to. |  |
| 1.4.iv. Collections SecurityCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1404AIs aware of security issues and follows Departmental security procedures. | 1404BIs aware of location of vulnerable and significant material within designated area of responsibility and ensures it is safely stored. Undertakes audit of vulnerable and significant material within designated area of responsibility(Vulnerable = at risk i.e. high value, historical, cultural, endangered species, etc.)Includes priority material to be rescued first in an emergency | 1404CEnsures all “vulnerable” material in collections within area of responsibility is in suitable housing.Manages audit of “vulnerable” material in collections within area of responsibility. | 1404DDevelops and maintains a collections security strategy for Area of Responsibility.Initiates strategy and manages audit of “vulnerable” material for Area of Responsibility. |  |
| 1.4.v. Disaster Planning: GeneralCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1405AUnderstands their role Collections Rescue and Recovery ie emergency planning. Is familiar with disaster planning arrangements for the Area of Responsibility | 1405BManages day-to-day business to reduce risks likely to initiate a disaster.  | 1405CIs a key member of the department/institutions salvage team and provides advice for rescue of all collections within their area of responsibility. (ie the are the main Emergency contact for that area). | 1405DInstigates, develops and manages emergency planning, i.e. business continuity, disaster, and collections salvage plans for Area of Responsibility. Disseminates plan to staff in area of ResponsibilityContributes to Institution’s Business Continuity and Crisis Management Plan. |  |
| 1.4.vi. Disaster Planning: Practical ProceduresCONSERV CORE COMPETENCY (To Level B)  | 1406AKnows where the relevant salvage equipment is stored and how to use it. e.g. mops, buckets, plastic sheeting etcAble to carry out “clean up” procedures under instruction and knows which key staff to contact.  | 1406BParticipates in team or is personally responsible for carrying out salvage operations Maintains disaster stores. Regularly updates equipment.Trains other staff to use the equipment.Liaises with Estates over contents of central disaster store. | 1406CManages disaster planning for all collections within area of responsibility. Disseminates plan to local team.Investigates new techniques for salvage. Carries out specialist recovery treatment of materials. | 1406DLiaises with other departments to develop Museum-wide approach, when appropriate. Co-ordinates cross-institution Collections Rescue and Recovery response to disaster. |  |
| 1.5 Collections Care and Conservation. This section looks at your skills related to collections care and conservation, the level of conservation expertise you have developed and how you plan, manage and execute conservation and collections care projects.  |  |
| 1.5.i. Collections Care and Conservation: Collection Condition SurveysCONSERV CORE COMPETENCY (To Level B) CM CORE COMPETENCY (To Level B)  | 1501AAble to follow survey protocols and contribute effectively to condition surveys. | 1501BPlans a condition survey following recognised survey methods/protocols agreed by team or team managment Able to identify the condition and deterioration of an object.Communicates findings to team and/or team management . | 1501CAudits and provides overview of surveys and evaluations of collection status, e.g. comparing state of collections to recognised benchmarks/standardsInitiates, prioritises and project manages condition surveys work programme for all collections within area of responsibility. | 1501DSets standards, based on condition survey data and, where relevant, international best practice. |  |
| 1.5.ii. Collections Care and Conservation: Condition Report on a SpecimenCONSERV CORE COMPETENCY (To Level B)  | 1502AAble to complete a basic condition report for an object, after training. | 1502BCompletes a condition report for a wide range of objects within own materials specialism. | 1502CCompletes a condition report for a range of objects and material types to a high standard.Manages staff developing their ability to produce quality conservation documentation. | 1502DDevelops and improves new condition reporting systems.Introduces new methodologies as appropriate taking advantage of technological progress. Develops a standard form for a Condition Report |  |
| **1.5.iii. Collections Care and Conservation:** **Conservation Fieldwork**  | 1503AAble to carry out basic conservation of specimens in the field, following instruction. | 1503BHas field experience and is able to prepare field conservation materials and safely lift finds. | 1503CExperienced field work conservator. Understands the issues of the specific environment and can make appropriate judgements, with respect to materials and techniques. Excavates finds with skill. Manages a field conservation team. | 1503DProvides policy advice on conservation issues for field collection. Decides priorities for the way material is collected. Develops new methodology when required.  |  |
| 1.5.iv. Collections Care and Conservation: Conservation Project PlanningCONSERV CORE COMPETENCY (To Level B)  | 1504AAble to write and carry out a project plan for the conservation of an object. Able to accurately document pre-treatment condition, conservation work carried out and materials used. | 1504BDecides on conservation requirements and priorities for a collection, taking account of resource issues. | 1504CUses a broad experience of conservation issues to give guidance and provide expert advice. | 1504DEDevelops and leads Museum-wide programmes to improve collections care.Initiates new working policy and procedures.Advises other museums on conservation planning |  |
| 1.5.v. Collections Care and Conservation: Practical ApplicationCONSERV CORE COMPETENCY (To Level B)  | 1505AAble to carry out remedial conservation tasks under general supervision. | 1505BPlan and carries out remedial conservation tasks without supervision, e.g. can make a judgement on the appropriate circumstances in which to apply particular treatments within the ethical framework outlined by the profession*.* | 1505CCarries out complex remedial tasks, and demonstrates a high level of skill in one area of conservation work. Trains staff in a wide range of remedial conservation techniques.Develops training programmes in above | 1505DExpert in remedial conservation.Develops training programmes.Carries out research and collaborates on remedial conservation projects.Contributes to professional training at a national / international level. |  |
| 1.5.vi. Collections Care and Conservation: Specimen Preparation | 1506AAble to prepare specimens within own work area under general supervision.Can Demonstrate an understanding of the materials they work on within their area of expertise and the potential of the data contained within. | 1506BPrepares specimens within own work area without supervision. Makes recommendations on preparation.Is skilled in a range of preparation techniques Can select the most appropriate tools and techniques to safely reveal scientific information.Uses correct anatomical terminology to document the process of preparation and to communicate with researchers.Is able to identify evidence to assist with interpretation of the specimen undergoing preparation and communicate findings to researchers | 1506CDemonstrates a high level of skill in more than one area of natural history specimen preparation.Balances conflicting demands and decide on method of preparation for difficult/contentious/ rare specimens.Can develop new methods of preparation techniques to deal with complex tasks.Has significant understanding of the process of preparation and regularly contributes to scientific papersLeads team undertaking technical preparation work | 1506DEHas a wide understanding of natural history specimen preparation. Carries out research to establish how to apply new techniques on a departmental or Museum basis. Provides advice and practical assistance on preparation methods and approaches to other institutes Develops and coordinates handbook/guidelines for best practice using museum material, e.g. recommended chemistries for archival DNA extraction. |  |
| 1.5.vii. Collections Care and Conservation: Preventive Conservation -RehousingCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 1507AAble to repackage /rehouse specimens under general supervision. | 1507BPlans a collection repackaging/rehousing project, taking account of resource, space and access issues. Designs and makes (or commission) bespoke storage, travel cases etc. for challenging objects.  | 1507CGives expert input and guidance to staff, visitors, etc.Undertakes program to rehouse collections in specialist environments. E.g oxygen-free bags, Leads master class in specialist conservation techniques | 1507DLeads preventive conservation strategy across institution Implements strategic plans to place collections in correct environmental conditions |  |
| 1.5.viii. Collections Care and Conservation: Preventive Conservation – CleaningCONSERV CORE COMPETENCY (To Level B)  | 1508AAble to clean objects and carry out “clean up” procedures in storage areas and surfaces under general supervision.Aware of mechanism to contact Estates for room cleaning. | 1508BUses a range of cleaning techniques on a variety of objects.Uses analytical techniques to identify surface pollutants. | 1508CManages object cleaning projects Liaises with facilities/estate management staff to develop and maintain cleaning protocols for Area of Responsibility.Improves and develops new object cleaning techniques. | 1508DPrioritises cleaning projects and allocates necessary resources.Provides advice and practical assistance for other institutes and museums.  |  |
| **1.5.ix. Collections Care and Conservation: Replication** | 1509AAble to make simple replicas of objects, under supervision. | 1509BMakes replicas of objects, using a range of materials and techniques. | 1509CExpert in the field of replication. Has a good understanding of replication materials. Deals with the most challenging objects and novel situations. | 1509DProject leader in the area of replication. Estimates resources needed for a project.Is aware of the current science in replication processes.  | Not applicable for all types of collections |
| **1.5.x. Collections Care and Conservation: New Approaches and Development of Existing Methods - Techniques****CONSERV CORE COMPETENCY (To Level B)**  | 1510AAble to safely and confidently operate specimen preparation and conservation equipment.Under direction, able to contribute effectively to research on existing and new methods. | 1510BIs aware of current technical advancements.Assesses equipment and techniques and recommends which are most appropriate to complete a particular task/outcome . Carries out analytical work needed to decide the most appropriate technique for remedial conservation of a complex object.  | 1510CResearches and develops methods and approaches for collections care, conservation and preparation.Investigates alternative equipment and techniques to improve the quality of output. Carries out analytical work to pursue appropriate technique for remedial conservation of complex objects. | 1510DRecognised international expert in methods and approaches for collections care, conservation and preparation. |  |
| **1.5.xi. Collections Care and Conservation: New Approaches and Development of Existing Methods - Materials** | 1511AWith guidance, is able to apply material science knowledge to assist with the selection of appropriate materials for remedial and preventive conservation tasks following instruction.Is aware of standard literature for appropriate remedial technique for use on an object, to be checked by manager.…” | 1511BResearches materials for the remedial and preventive conservation of specific objects and can provide the conservation documentation to show that appropriate material criteria have been used. Reviews literature associated with the general techniques used for preventive and remedial conservation, as well as techniques within specific area(s) of expertise. | 1511CApplies material science knowledge to specify materials. Keeps up to date with trends in conservation and conservation ethics and their application in order to apply the appropriate techniques for the material. Develops and customise materials for specific use within preventive and remedial conservation. Dissemination of and interpretation of information with members and colleagues | 1511DSpecifies use of materials within the collections for preventive and remedial conservation.Researches new methods and materials, Undertakes extensive review of discipline and displays critical judgement when making ethical decisions on the treatment of internationally sensitive material. |  |
| **Suggested changesetc** | Yes! With supervision this is all appropriate though. |  |  |  |  |

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|  |  (Level A)Early stage career / training level |  (Level B)Curator Conservator |  (Level C)Collection Manager Senior Curator Senior Conservator |  (Level D)Head of Collections / Collections Leader Principal Curator Head of Conservation | Framework Explanatory Notes  |
| 2. Access to Collections. This part of the framework assesses how you handle different forms of access, your experience of dealing with access requests, what you have learned from this and how you implement changes |
| 2.i. General (Enquiries, Loans, Visitors *etc*.)CM CORE COMPETENCY (To Level B)  | 2001A Provides basic support for users of the Institution’s collections (borrowers, visitors, enquirers). Eg. Is able to meet and provide visitors with appropriate, equipment, Is able to process loans in a timely manner  | 2001B Provides in depth assistance to enable access to collection in line with Museum policy and available resources, e.g. staff-time, space, equipment and does not have more visitors arriving than can be effectively managed.Deals with complex requests and enquiries in designated area of responsibility and makes informed decisions on type of response.Implements improvements and new standards.Manages local resources to provide appropriate levels of service. E.g ensures that visits are scheduled and space for visitors is effectively managed  | 2001C Applies quality standards for access in light of Institution’s, national and international regulations and protocols e.g. CETAF, CPB guidleines for access to collectionsEvaluates how quality standards for access are being applied to all collections within area of responsibility.Ensures that user services are balanced with resources available to collections within area of responsibility. | 2001D  Manages and monitors all aspects of access to the collections in line with available resources.Sets and develops quality standards for access to collections. Establishes procedures to ensure quality standards. | Who coordinates recall of loans? Level C I think and only for his collection area?See also 2.iii |
|  | . |  |  |  |  |
| 2.ii. User Needs | 2002A Builds understanding of user needs and can prioritise these within own workload.Responds to user needs under supervision.  | 2002B Aware of changing user needs and compares practices internally and externally to improve access and standards.Discusses users’ needs and suggests alternatives where appropriate. | 2002C Changes access procedure to meet user needs in division/section/team as appropriate. | 2002D Reviews and develops cross-Museum plans to meet changing user needs  |  |
| 2.iii. Research LoansSee also comment on 2.iCM CORE COMPETENCY (To Level B)  | 2003A Understands the procedures necessary to process specimen research loans by following and adhering to international regulations required for transport of material (CITES, Dangerous Goods, etc.).Able to process specimen loans with minimal supervision e.g. record keeping, pre-loan conservation, specimen packing, loan return reminders, and post-return inspection. | 2003BDeals with complex requests, makes informed decisions and advises on what can be loaned.Processes more complex specimen loans within designated area of responsibility.  | 2003C  Oversees and manages loans in area of responsibility.Understands background sufficiently to make informed initial approval for loans. Understands and conforms to other legal regulations, e.g. CITES permits, Health and Safety, import/export, transport regulations etc.,. | 2003DHas authority to approves loans on behalf of institutional leadership/governance within policy and understands accountability of this authority. Ensures all loan policies are adhered to and all other legal regulations, e.g. CITES permits, Health and Safety, import/export, transport regulations etc. are met across the Area of Responsibility |  |
| 2.iv. Destructive and Invasive Sampling. | 2004A Aware of destructive and invasive sampling policy. | 2004B Selects and makes recommendations for destructive and invasive sampling based on knowledge of local collection and users requirements. | 2004C Makes informed decision on destructive and invasive sampling based on expertise and policy. | 2004D Makes decision on destructive and invasive sampling of vulnerable material.(Vulnerable = at risk i.e. high value, historical, cultural, endangered species, etc.)Ensures destructive and invasive sampling policy is adhered to.  |  |
| 2.v. Visitors to the Collections: GeneralCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 2005A Is polite. Finds out and understands most visitor needs. Relays concerns and difficult requests to line management.Can explain to visitors Health and Safety regulations; can arrange passes, keys, etc.Able to provide visitor access to parts of the collection and has background knowledge of the specimens or collections history. | 2005B Provides access and has sufficient knowledge to explain and guide the visitor to enhance the visit within resources.Maximises the benefit to the collection from visitors, e.g. encourages expert identification from visitors.Deals with difficult and demanding visitors in a firm but polite way. Relays concerns and difficult requests to line management. | 2005C Manages visitor access across area of responsibility in line with Area of Responsibilityand Museum policy within the resource constraints available.  Explains assertively issues such as restricted access, and resolve access problems. Discusses visitor needs and assist where appropriate in planning a successful visit pointing to areas of collection perhaps of which they are unaware. If charges are made for services , applies policy for payment of bench fees or negotiates collections work agreements in lieu of fees. E.g reducing fees for specimens identified/typified etc | 2005D Writes and updates Area of Responsibility policy and procedures for visitor access.Assesses visitor pressure and requirements and allocates facilities within resources.When appropriate acts on concerns of staff and users to improve visitor policy development and procedures in Area of Responsibility.  |  |
| 2.vi. Visitors to the Collections: Security CM CORE COMPETENCY (To Level B)  | 2006ABSupervises visitor access as necessary to ensure the safety of the collection.Ensures visitors handle material in the correct manner. | 2006CEnsures that staff abide by security procedures of the Museum and Area of Responsibility when dealing with visitors/volunteers  | 2006DEWorks with institution’s security/ facilities/buildings maintenance staff teams to develop and maintain the safe keeping of the collections within resources.Set security standards for collections. |  |
| 2.vii. Enquiries: Written CM CORE COMPETENCY (To Level B)  | 2007A Can answer basic/routine written enquiries as directed by line management but will need to have work checked as appropriate, e.g. for level, accuracy, grammar and spelling.Ensures all enquiries are effectively logged and documented to comply with relevant legislation. Manages this work in a way that promotes customer satisfaction. | 2007B Provides detailed answers to enquiries with interpretation of information obtained from a number of sources.  | 2007C Has expert knowledge and can summarise complex arguments and concepts from a variety of original sources in an appropriate form for different audiences. | 2007DResponds to enquires on behalf of the Area of Responsibility/Institution e.g. corporate level enquiries, sensitive areas, freedom of information, governmental, departmental issues , high profile media, police enquiries, customs enquiries, high security risk | List of users would normally kept up to date by those who manage visitors on a day to day basis  |
| 2.viii. Enquiries: Verbal CM CORE COMPETENCY (To Level B)  | 2008A Speaks clearly and politely when dealing with telephone or public enquiries. If unable to answer, passes the enquiry on to appropriate authority e.g manager, press officer. . | 2008BCCommunicates effectively with people at different levels inside and outside the Area of Responsibility.Provides concise information and makes sure the enquirer understands the answer. If unable to answer the enquiry will seek information and get back to the enquirer within an agreed time. | 2008D Provides information on collections/discipline to Institution’s corporate centre and outside bodies e..g national heritage organisations, funding bodies, other stakeholders in a clear and understandable way.Can represent the Area of Responsibility and Museum for enquiries from outside bodies on policy, process.  |  |
| 2.ix. Enquiry Management | 2009A Responds to enquiries for their designated collection under supervision. | 2009B Responds to enquiries within the agreed time frame and prioritises as necessary.  | 2009C Manages enquiry system and load across team within area of responsibility and oversees responses to enquiries as necessary e.g. standardizing responses Provides advice on legal requirements such as freedom of information regulations. . | 2009D Ensures enquiry system within the Area of Responsibility conforms to institutional policy. Reviews and writes procedures for Area of ResponsibilityResolves enquiry issues and conflicts. |  |

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|  | Job Family SC1 (Level A)Early stage career / training level |  (Level B)Curator Conservator |  (Level C)Collection Manager Senior Curator Senior Conservator |  (Level D)Head of Collections / Collections Leader Principal Curator Head of Conservation | Framework Explanatory Notes  |
| 3. Digital Curation. This section explores what role you play in the Museum’s digitisation effort. It looks at what skills you have developed, how you employ those skills both in your own work and in training others as well as the impact your work has on the department, museum and wider community. |  |
| 3.i. Data EntryCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 3001A Can use the agreed system/software for managing collections . accurately and quickly to incorporate data. | 3001B Is sufficiently conversant with the operation of any collections management systems cto carry out routine tasks such as searches, loan lists etc accurately.Has a good understanding of collections data and how these are modelled in the collections management system/databases. | 3001C Manages digital curation effort for team and/or area of responsibility.Shows an in depth understanding of the CMS to be able to document the practical implementation of core collections management processes, e.g. object tracking, loans etc.Sits on Departmental or museum committees for co-ordination and prioritisation of digitisation effort and develops strategy within area of responsibility | 3001D Chairs departmental and/or museum committees for co-ordination and prioritisation of digitisation effort.Develops strategy within Area of Responsibility, e.g. develops projects to back capture specimen information. Develops projects with external institutions to share digitisation effort.Is official representative of main area of responsibility on Instituional digitisation committees.Represents the Museum on International forums on digitisation issues.Gives presentations to international audiences on Museum wide digitisation projects. |  |
| 3.ii. Query and ReportingCM CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 3002A Able to interrogate collections management systems/databases etc to provide information.Uses the collections management systems/databases etc to retrieve informationAble to create customised list views for their own needs.Can copy and paste list views into spreadsheets such as Excel if needed.Able to compile ABCD fields to incorporate existing database into an appropriate compatible database. | 3002B Uses collections management systems/databases to perform complex queries about holdings. Uses reporting system for the specific needs of the end user.Uses reporting system to generate bespoke views of data for their own needs (e.g. csv, excel, word). | 3002C Develops report formats for user needs.Uses collections management systems/databases to assess collection status and gaps in area of responsibility and to respond to enquiries from external groups.Understands and collates data to provide reports to museum- wide and external audiences.Creates reports in a variety of formats in response to user needs including labels etc | 3002D Can fully manipulate collections management systems/databases to provide reports to satisfy senior level requests and key performance indicators e.g. number of loans sent in a year..Understands and can collate data to provide reports to museum-wide and external audiences.Builds complex reports that span across departments e.g. for key performance indicators.Produces complex, formatted report templates for institution-wide use e.g. Loan forms, Object Entry forms, Conservation Reports. |  |
|  |  |  | OMIT! |  |  |
| 3.iii. Data Validation and EnhancementCM CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 3003A Carries out basic data cleansing under supervision. | 3003B Undertakes enhancing collections within designated area of responsibility by improving the data associated with specimens. | 3003C Undertakes large data cleaning and data enhancement projects across area of responsibility.Plans and manages specific data cleaning and data enhancement projects across team and/or area of responsibility. Fully conversant with data structure of any collections management systems/databases used  | 3003D Develops large-scale data-base projects which link to external sources of data, enhancing the Institution’s collections.Manages large validation programmes across **Area of Responsibility**.Represents Department (and/or **Area of Responsibility**) in Institution -wide projects. |  |
| **3.iv. Mass Digitisation: Projects****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3004A Provides curatorial support for mass digitisation projects, e.g. providing specimens. | **3004B** Suggests projects for mass digitisation and supports development of large import/update files.Manages data entry projects up to 100,000 records. | 3004C Manages data entry projects in excess of 100,000 records.Constructs import/update files. Manages the import process. | 3004D Designs, develops and manages mass digitisation projects.Gains external financial support to support major digitisation initiativesCo-ordinates mass digitisation effort within department (and/or Area of Responsibility) |  |
| **3.v. Mass Digitisation: Digital Imaging****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3005A Carries out basic specimen imaging with minimal supervision. | 3005B Participates in imaging projects.Manipulates images and makes basic decisions on quality.Associates images with specimen records.Curates images. i.e. ensures images are appropriately stored retrievable and metadata updated | 3005C Manages imaging projects across team and/or area of responsibilityProvides resources to support imaging projects across team and/or area of responsibilityIs aware of technological developments. Makes adjustments/decisions to purchase new equipment.Develops projects in cooperation and discussion with senior managers | 3005D Actively develops and introduces new systems for imaging.Initiates large-scale imaging projectsManages large-scale image capture projects.Gains funding to support imaging. | Resources in this section can include: temporary staff through internal funding sources or other internal sources/external sources or volunteers; facilities or equipment through successful application for funds *etc*. |
| **3.vi. Workflows and Process Management****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3006A Contributes to discussions on optimization and planning of **workflow**s.  | 3006BAppreciates the importance of digitisation processes/procedures and their effective streamlining and organisation so that the resulting **workflow** is an effective use of resources.  How is this measurable?Shows evidence of adhering to and managing existing **workflow**s. | 3006CAble to create and optimise digitisation processes and procedures (**workflow**s).   | 3006D  Monitors and maintains awareness of other digitisation **workflow**s in Institution.Acts as central point of contact to ensure that where possible **workflow**s can be linked together to be more efficient and and reduce. | Digitisation **workflow**s will encompass both technical, (for instance, data entry forms and database design) and non-technical components (for instance, arrangement of digitising processes in the most efficient order – quick image capture of specimens versus manual data entry, marshaling of people resources *etc*.). |
| **3.vii. Manage Collections Data : Quality Control and Assurance****CM CORE COMPETENCY (To Level B)** **DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3007A Carries out basic editing and updating of records.Checks database records against data associated with specimens in designated area of responsibility and /or registers and card indexes (wherever the fullest information exists) | 3007B Has some knowledge of relevant Institutional and international data standards and how they relate to the Museum’s digital records.Carries out quality control and assurance on data for collections within designated area of responsibility. | 3007C Has a good knowledge of international data standards and makes recommendations for restricted vocabularies for lookups. Is responsible for Quality Control of data entries from team and/or area of responsibility into collections management systems/databases and carries out periodical audits of accessions/registered specimens. Sets up mechanisms to assess quality of data entry etc. Develops and manages the strategy for data cleaning and editing.Runs sophisticated manipulations to data within the colections management system/datbases used e.g. using global updatesLeads data cleaning projects relating to data specific to Area of Responsibility. | 3007D Has an excellent knowledge on international data standards, may represent the museum on international forums designing these standards. Ensures that implementation of the collections management system/databases is effective and follows policy and procedures. Ensures that data management audits are in place for the Department’s databasing. (**Area of ResponsibilityArea of Responsibility**?)Leads data cleansing projects covering data for entire collections management system/databases Modules |  |
|  |  |  |  |  |  |
| **3.viii. Manage Collections Data: Policies****CM CORE COMPETENCY (To Level B)** **DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3008A Understands Institution’s data standards and procedures | 3008B Contributes to the on-going development of data standards and policies for the **Area of Responsibility** | 3008CUnderstands Institution’s data policies and procedures in depth. Takes a lead in shaping data standards and policies and advises senior staff on data issues. | 3008D Contributes to development of Institution’s data policies across the museum. |  |
| **3.ix. Database Management: Technical Interface****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3009A Builds simple flat-file databases for import using standard platforms e.g. MS Excel. | 3009B Builds Excel spreadsheets for importing data spanning two or more Modules and including multi-valued fields and nested grids.Supports development of large import/update files.Builds relational databases for import with knowledge of data types & indexes e.g. MS Access. | 3009C Designs structure and imports large datasets into collections management systems/databases.Has senior rights to carry out modifications to dataset (e.g. delete, global update, import records)Undertakes data mapping exercises in order to migrate data into the collections management system/databases.Creates mapping documents for large datasets to be migrated.Represents Area of Responsibility on Museum digitising committeesImports and exports datasets to and from the collections management systems/databases. Undertakes data manipulation outside the collections management system/databases to enhance data ready for re-import. | 3009D Has administrator rights for the collections management system/databases across the institution . Designs and imports complex relational databasesManages databasing effort across Department |  |
| **3.x. Database Management: Advanced Database Management****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  |   |  | 3010C Builds complex relational databases for a multi-user environmentDevelops data backup and recovery strategy  | 3010D Manages data at a senior level for museum-wide datasets.Builds complex databases using an enterprise-level RDBMS database e.g. MySQL, SQLServer, and Oracle.Uses advanced systems skills, to optimise database performance through indexing, query optimisation, triggers.Uses advanced database tools such as Data Transformation Services to modify & manipulate datasets.Is a collections management system/databases Administrator. |  |
| **3.xi. Collections Management System: Development****DATABASER /DIGITISER CORE COMPETENCY (To Level B)**  | 3011A Notifies manager of bugs and suggests possible enhancements for collections management system/databases. | 3011BTests new versions of collections management system/databases under supervision.Provides input into the design of the collections management system/databases user interface.Keeps abreast of new client functionality and makes suggestions of how it could be used to improve **workflow**s and information enhancement e.g. ‘Resources’ and ‘Record Templates’**.** | 3011CProvides in-depth technical expertise in the design of database modules and interface functionality.Represents **Area of Responsibility** on institutional bodies responsible for development of systems.Coordinates testing of new versions across the **Area of Responsibility** .Adapts, edits and assesses comments about database operations within the Area of Responsibility Keeps abreast of new client functionality and experiments with the functionality to develop improved workflows and information enhancement. Develops web page concept briefs with support of IT staff | 3011DManages programme of collections management system/databases development for the museum.Provides input into the development of the collections management system/databases globally by liaising with other institutes and developers. .Adapts, edits and assesses comments about database operations within the Department. |  |
| 3.xii. Collections Management System: Registry managementDATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 3012A Understands functionality and operation of collections management system/databases. | 3012B Assists in the operation and functionality of the database, e.g. contributes ideas to the continuous development of the database system.Suggests changes to registry settings to improve use of the collections management system/databases. | 3012C Manages departmental system administration e.g. defines and manages which groups and individual users have various permissions..  | 3012D Installs and administers the database e.g. manages user access permissions & security. |  |
| 3.xiii. Collections Management System: Training and Support DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 3013A Receives training in use of collections management system/databases to become proficient in basic use. | 3013B Advises on where additional training documentation and support is necessary. | 3013C Develops user-specific documentation and training in the practical implementation of collections management procedures within any collections management system .Runs intradepartmental training courses/seminars. with assistance from IT staffWrites help documentation for departmental use.Provides collections management system/databases support on a departmental basis. | 3013D Assess user needs and develops appropriate courses.Organises museum-wide training courses.Writes help documentation for museum-wide use and implements field help.Organises and implements collections management system/databases support system on a museum-wide basis. |  |
|  |  (Level A)Early stage career / training level |  (Level B)Curator Conservator |  (Level C)Collection Manager Senior Curator Senior Conservator |  (Level D)Head of Collections / Collections Leader Principal Curator Head of Conservation | Framework Explanatory Notes  |
| 4. Scholarship.This section explores your level of expertise in systematics and taxonomy, museology, conservation and other research areas. It looks at how you contribute to the relevant research community and the regard you are held by your colleagues in that research area. |  |
| 4.i. Systematic and Taxonomic Principles CM CORE COMPETENCY (To Level B)  | 4001A Learns the basic rules of nomenclature, i.e. understands type concept | 4001B Understands the rules of nomenclature as they relate to their discipline. Knowledge of the appropriate literature, e.g. revisions, catalogues, documenting synonymy and homonymy etc. | 4001CDExpert understanding of the use of rules of nomenclature and codes and can relate the importance of the collections to scientific debates, discussion and enquiries; e.g. what type material and named specimens in the collections will inform and illuminate scientific debate. |  |
| 4.ii. Scholarship: GeneralCM CORE COMPETENCY (To Level B)  | 4002A Develops a working knowledge of an assigned area or collection. | 4002B Has a working knowledge of an assigned collection and relevant literature. | 4002C Has a comprehensive knowledge of all collections within area of responsibility and relevant literature. | 4002DHas exceptional knowledge of the Area of Responsibility and relevant literature. Eg highly familiar with collectors represented,, knows collectors handwriting, can relate collections to collections in world context etc |  |
| 4.iii. Scholarship: History of the Discipline and Collections | 4003A Demonstrable understanding of the history, importance and scope of the collections and discipline. | 4003B Has wide knowledge and carries out investigation on the history of a collection, specimens and collectors. | 4003CCarries out research on the history of the collections and collectors, and publishes the results. | 4003DLeads and initiates projects about the history of the collections and collectors. |  |
| 4.iv. Scholarship: Collections-based Research | 4004A Supports collections-based research projects in the department under supervision.Can complete a skeletal inventory and take standard measurements under supervision. | 4004B Carries out and supports small collections-based research projects with minimal supervision.Fully conversant with all aspects of documenting skeletal anatomy and can work unsupervised. | 4004C Carries out collections-based research as part of a large research programme and is included to provide relevant expertise.Initiates collection-based research projects within the local collection.Develops & updates skeletal anatomy data recording systems using current best practice | 4004D Initiates new research projects on a departmental level. Leads collections-based research.Develops the procedures for skeletal anatomy documentation and data collection | Includes research on collections management and Museology |
| 4.v. Archival Provenance  | 4005A Can collate archival information under supervision from a variety of sources | 4005B Identifies potential sources for archival research and initiates research process | 4005C Plans archival research within area of responsibility & develops links with appropriate archives | 4005D Develops procedures for archival research within/across Area of ResponsibilityConsulted externally on this area  |  |
| 4.vi. Scholarship: Keys, Guides and Inventories |  | 4006B Produces keys, guides and inventories of small groups of taxa. | 4006C Produces keys, guides and inventories, e.g. faunas and floras, monographic treatments,  | 4006D Authors a peer-reviewed, high-impact, scientific key reference. |  |
| 4.vii. Scholarship: Publications | 4007A Provides information/data to support publications. | 4007BIs an author on papers in relevant publications. | 4007CLead author on papers published in relevant journals. Invited to contribute to publications e.g. individual book chapter. | 4007DRegularly publishes papers in relevant journals as lead author.  |  |
| 4.viii. Scholarship: Project Management | 4008AB Provides support and input into conservation and collections care research and development projects. | 4008C Participates in research and development projects because of acknowledged expertise. | 4008D Leads collaborative research and development projects for collections care and conservation. |  |
| 4.ix. Scholarship: Identification SkillsCM CORE COMPETENCY (To Level B)  | 4009A Is able to identify relevant material to an appropriate level under direction. | 4009B Identifies material without supervision and to a high level of accuracy. Has an understanding of where to source the relevant literature, e.g. Zoological Record. | 4009CProvides identification skills to support all division/section/team collections based activity.Supports research objectives by providing identification skills or with an aim to publish the results.Recognises important historical material. | 4009DE Uses expertise and experience to advise others.Is internationally acknowledged taxonomic/scientific expert. Acknowledged for ability to provide detailed expert identification reports and for police and customs identification..  |  |
| 4.x. Scholarship: Professional SkillsCM CORE COMPETENCY (To Level A) onlyCONSERV CORE COMPETENCY (To Level B)  | 4010A Develops skills such as use of microscopes, stains, dissection, etc. | 4010B Enhances skills as needed to support projects.Has experience of using complex scientific apparatus, e.g. X-rays, SEM.Maintains laboratory scientific equipment. | 4010C Acknowledged expert in scientific/technical area.Manages scientific departmental equipment ; small-scale collection facilities, e.g. x-ray, dermestarium or large-scale collection facilities e.g. Quarantine, Vertebrate Preparation. | 4010D Is internationally acknowledged scientific/technical expertise. | Facility means a recognised area that attracts interns and grants internationally and leads the strategic development in the field.  |
|  |  |  |  |  |  |
| 4.xi. Scholarship: Assessment Skills  | 4011A Awareness of the market /scientific value of specimens in their care. | 4011BCUnderstands and assesses the scientific/market value of specimens/collections. Maintains contact with the natural history specimen market and can estimate the value of specimens.  | 4011CDAssesses and evaluates specimens for scientific and aesthetic merit and accurately assess market values.Provides expert advice to external bodies for assessment and valuations. |  |
| 4.xii. Scholarship: Funding | 4012A Provides support to grant applications. | 4012B Seeks and applies for small grants, internal funds to cover travel, etc. | 4012C Seeks and applies for funding from external agencies to support projects.Forms part of a team preparing large-scale funding applications. | 4012D Seeks and applies for large scale collaborative grants from external agencies as Principal Investigator or as Co-Investigator Leads Institution’s part of an inter-institutional project with external funding. |  |
| 4.xiii. Scholarship: Conferences, Meetings and Workshops | 4013A Attends and helps at workshops and conferences. | 4013B Presents posters at conferences, presents talks at small meetings and workshops.Publicises collections to users. | 4013C Regularly presents papers at national and international meetings. Leads workshop sessions. | 4013D Is invited regularly to speak at international conferences.Chairs sessions at International meetings. Organises international workshops and conferences.Is on the editorial panel for a publication from a major international conference/congress/ workshop. |  |
| 4.xiv. Scholarship: Communication with the Media | 4014A Support and facilitates media activities. | 4014B Occasionally participates in media activities. | 4014C Recognised Museum spokesperson for media enquiries. | 4014DConsultant to major media series ie several television/radio programmes with common theme and facilitates access to collections and staff. | This relates specifically to your current scholarship work and projects. |
| 4.xv. Scholarship: Tertiary Education | 4015A Supervises and trains work placement students. | 4015B Supervises and trains visiting students and oversees collection access. | 4015C Generates Masters projects and supervises Masters students | 4015D Generates PhD projects and supervises PhD students.Examines PhD theses. |  |
| 4.xvi. Scholarship: Teaching - Tertiary Level |  | 4016BTeaches parts of units and sets examination questions for undergraduates. | 4016C Teaches parts of units and sets examination questions for Masters courses. | 4016D Co-ordinates a module or course for university undergraduates and masters students. |  |
| 4.xvii. Scholarship: Teaching - Extra Mural | 4017AEngaging in informal learning and teaching. | 4017B Design and/or teaches part of units for extra mural courses, e.g. amateur groups.Facilitating informal learning and teaching. | 4017C Design and /or teaches courses for specific specialist groups, e.g. veterinarian groups.Leads informal learning and teaching. | 4017DDesign and /or teaches national or international groups. Oversight and coordination of delivery of informal learning by your team |  |
| 4.xviii. Scholarship: Indicators of Esteem |  | 4018B Membership of a relevant learned society or relevant professional body. | 4018C Committee member of a learned society or relevant professional body. | 4018D Chairs, or is on the committee, of relevant international/national organisation.Member of a committee that sets a strategic direction for your area. | Leading means being part of the group that defines and develops the strategic direction for your discipline. |
| 4.xix. Scholarship: Refereeing |  | 4019BCReferees papers in area of expertise for peer-reviewed journals. | 4019D Editor or on editorial board of internationally recognised relevant journal or trade magazine. |  |
| 4.xx. Scholarship: Editorship |  | 4020B Edits popular works | 4020C Edits general scientific – technical work. | 4020D Edits a contributed volume. |  |
| 4.xxi. Scholarship: In-House Staff Development |  |  | 4021C Provides tuition of staff and identifies training needs to support collections-based research projects for relevant area of responsibility.  | 4021D Provides oversight and strategic vision to identify taxonomic/museology gaps for staff within the Area of Responsibility. |  |

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|  | (Level A)Early stage career / training level | (Level B)Curator Conservator | (Level C)Collection Manager Senior Curator Senior Conservator | (Level D)Head of Collections / Collections LeaderPrincipal Curator Head of Conservation | Framework Explanatory Notes  |
| 5. Exhibitions, Outreach and Corporate Activities. How does your work impact on the public face of the museum, what do you contribute to the Museum’s outward facing role and what is the level of your expertise are explored in this section. |
| 5.i. Exhibitions: Content and Development | 5001A Provides information and specimens to be used in exhibitions as instructed.  | 5001B Provides informed suggestions, copy and specimens for exhibitions.Gains experience via secondment to exhibition departments/programmes etc  | 5001CIs part of the development/design team for an exhibition.Takes part in the development of plans including specimen procurement for exhibitions. | 5001D Provides expertise and leadership in the development of a large exhibition.Liaises with exhibition teams, external bodies and other Museums on joint exhibitions or external exhibitions.Acts as main scientific liaison person on project team for major gallery or exhibition delivery. |  |
| 5.ii. Exhibitions: Loans | 5002A Is familiar with conservation issues for loan material. Can pack objects for loan under supervision. | 5002B Reviews facility reports and other associated documents for loan of material relevant to their section. Advises others on the suitability of material for loan. Can carry out basic courier duties. | 5002C Acts for the Department or Institution to ensure criteria for display of specimens are met by borrowing departments and institutions. Is fully competent at carrying out courier duties. woolly | 5002D Carries out a range of Registry duties for specimen loan for exhibitions. Coordinates and manages **Area of Responsibility**/exhibition loans. Can negotiate on contracts for specimen loans for exhibitions. Sets the criteria and standards for a loan. |  |
| 5.iii. Exhibitions: Specimen Conservation Support | 5003A Provides assistance in installing objects on display. | 5003B Provides advice for the display of specimens.Leads installation of objects on display for materials from their area of expertise. | 5003C Provides expert assistance and advice from several conservation disciplines. Leads installation of objects on display for materials for all Museum materials. | 5003DAssesses major conservation undertakings and make recommendations on resources etc. E.g major conservation project to refurbish a museum gallery.  |  |
| 5.iv. Public Outreach: Citizen ScienceCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)  | 5004A Gives informal talks and tours to small groups of visitors about a collection/specimen.  | 5004B Gives talks, tours or demonstrations about departmental collections, specimens or history, preparation demonstrations to students, public and corporate audiences, Recognised spokesperson for a collection in area of responsibility. | 5004C Represents area of responsibility or **Area of Responsibility** at internal and external meetings or events.Support and contributes to the organisation and delivery of public events.Developing new and innovative approaches to outreach activities. Recognised spokesperson for collections management and all collections in area of responsibility. | 5004DSpeaks on behalf of the Museum at external meetings.Organises major internal/external public events such as fossil festivals etc Recognised spokesperson on collections management issues and **Area of Responsibility**. |  |
| 5.v. Public Outreach: Multimedia(moved up) | 5005A Provides information/data for web/multimedia projectsDevelops and delivers Web pages, Twitter, blog etc. | 5005B Produces small multimedia projects, e.g. CDs and webpages.Contributes material, content, data for large multimedia projects. | 5005C Designs complex web applications in liaison with IT and interactive media experts. | 5005D Initiates and leads large collections-relevant multimedia projects.Manages departmental collections management web presence. |  |
| 5.vi. Consultancy and Income Generation | 5006A Provides generalized collections support for Institution’s consultancy initiatives. E.g processing material/data from commercial environmental surveys | 5006B Provides identifications for consultancy /commercial enquiries to the required level of accuracy and in a timely manner.Provides specialized collections support for Institution’s consultancy initiatives.Participates and contributes to generation of commercial income including consultancy.Able to identify income generation and consultancy opportunities. | 5006C Leads curation consultancy teams.Helps develop new consultancy projects.Consistently contributes to consultancy activity, e.g. enquiries, collections assessments for other Institutions etc.Actively seeks opportunities for income generation and consultancy. Acts as expert witness e.g giving forensic evidnce in criminal prosecutions . | 5006DRoutinely develops and promotes new collections consultancy initiatives.Mount a successful campaign through corporate sponsorship and philanthropy.Focal point for major national and international consultancy expertise.Collaborates with Development to seek and generate significant fund-raising opportunities. |  |
| 5.vii. Information TechnologyCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 5007A Can use a range of general software packages appropriate to the job. | 5007B Accomplished software user of general software packages.Ability to transfer and store digital information effectively.Aware of and uses specialist software as required for the job. | 5007CInvolvement in research projects because of ability to manipulate data from a variety of digital sources e.g. Biogeomancer, GIS, web sources, electronic environmental monitoring systems.Provides support and advice on specialist software applications.Aware of International developments in data standards, attends relevant meetings, e.g. GBIF, TDWG, etc. | 5007DDevelops new software, database applications that take advantage of new technology.Contribute to International developments in data standards, attends relevant meetings, e.g. GBIF, TDWG, etc.Ensure compliance with International developments in data standards, attends relevant meetings, e.g. GBIF, TDWG, etc. |  |
| 5.viii. Health & Safety: GeneralCM CORE COMPETENCY All to SC1 (Level A)CONSERV CORE COMPETENCY All to SC1 (Level A)DATABASER /DIGITISER CORE COMPETENCY All to SC1 (Level A) | 5008A Endeavours to maintain a safe and healthy working environment.Has the ability to recognise hazards (immediate or potential) in their workplace, general-use lab and storage within a designated area. Able to rectify or report problems to appropriate staff.  | 5008B Undertakes systematic Health and Safety inspections of the workplace, non-specialist labs and storage areas within a designated area in an official capacity. Is able to report findings accurately to departmental Health and Safety officers. | 5008C Is qualified to carry out official Health and Safety inspections of specialist labs in their area of responsibility. Acts upon Health and Safety inspection team's reports on health and safety issues in an effective and timely manner so as to mitigate risk of injury or damage.Ensures that health and safety regulations are complied with across their area of responsibility. | 5008D Advises senior management and health and safety officers on **Area of Responsibility** and related laboratories on Health and Safety issues specific to those areas. Formulates operational procedure. |  |
| 5.ix. Health & Safety: Procedural issuesCM CORE COMPETENCY All (To Level B) CONSERV CORE COMPETENCY All (To Level B) . | 5009A Understands control of hazardous substances regulations and risk assessment. Can prepare simple risk and control of hazardous substances assessments with the guidance of a supervisor. Understands risk phrases and safety labelling. | 5009BActively pursues safety issues. Prepares risk and control of hazardous substances assessments competently.  | 5009C Takes a lead role in providing a safe working environment.Guides members of staff with writing risk and COSHH assessment. Manages the updating of assessments. Alerts staff to changes in legislation, ensures appropriate safety labelling is in use for all chemicals.  | 5009DEnsures that all collections management methods within the **Area of Responsibility**are compliant and have a Risk Assessment and COSHH statements and are accessible for inspection.Make sure that collections management practices in use in the **Area of Responsibility**comply with all legislation.  |  |

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|  | Level A (Job Family SC1)Early stage career / training level | (Level B)Curator Conservator | (Level C)Collection Manager Senior Curator Senior Conservator | (Level D)Head of Collections / Collections LeaderPrincipal Curator Head of Conservation | Framework Explanatory Notes  |
| 6. General Management (incorporates relevant competencies from Managerial Competency Framework).These competencies look at how you manage resources and people e.g. permanent and temporary staff, students and/or volunteers. It looks at how management of those resources benefits the museum and how you develop and manage the people you are responsible for. |
| 6.ii. People Management: Team Working (Team Membership and Leadership)CM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B)DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6002A Is a positive, active and flexible member of the team.Makes time for team members and recognises when staff are under pressure. | 6002B Leads small project teams as required (staff or volunteers).Ensures all team members feel appreciated and valued.Helps integrate newcomers into the team | 6002C Team manager, competent in line management.Is able to motivate and manage teams of volunteers.Has good interpersonal skills.Empowers team members to achieve objectives and takes responsibility for team members’ actions and errors. | 6002DDevelops and leads team planning. Has appropriate Project Management skills.Displays leadership skills.Understands and applies the legislative framework for employment.Is responsible for meetings that cover all collections |  |
| 6.iii. People Management: Managing PerformanceCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6003ABTakes ownership of own agreed work programme and fulfils commitments.Works to deadlines, is well organised and able to cope with a number of tasks.Is punctual, i.e. attends meetings on time. | 6002CManages time and priorities of designated team by setting appropriate objectives and deadlines.Is aware of the financial costs of and constraints on actions.Develops staff to achieve their potential in their role.Identifies and resolves performance problems. Assesses, recognises and rewards performance.Manages absence using the Museum’s Absence Policy.Identifies and manages flexible working arrangement for staff whilst maintaining core business activities. | 6002D Has a complete understanding of institutional aspirations, on-going projects and available resources. Develops co-ordinated action plans and sets performance standards for the Area of ResponsibilityArea of Responsibility.Delegates where appropriate. |  |
| 6.iv. People Management: Recruitment and Promotion Selection |  | 6004B Organises Area of Responsibility/Departmental induction for new employees. | 6004C Able to implement confidently the Museum’s recruitment and selection procedures.Has effective interviewing skills e.g. understands legal framework and regulations such as Equal Opportunities.Assesses staff for promotion. | 6004D Contributes to Departmental strategic succession planning.Chairs recruitment panel.Makes recommendations for promotion from within the Area of Responsibility. |  |
| 6.v. People Management: Influencing SkillsCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6005ADevelops good working relationships with colleagues. | 6005B Builds relationships within team and between teams. Makes persuasive arguments/presentations. | 6005CNegotiates with Area of Responsibility management on posts, resources, etc. Resolves conflicts.Understands and implements motivational techniques. | 6005D Negotiates across Departments on joint projects.Leads teams but may not necessarily have direct line management control.Negotiates with senior management on posts, resources, etc. |  |
| 6.vi. Problem Solving and Decision MakingCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6006A Can identify problems, able to determine appropriate action and refer to line management when appropriate. | 6006B Seeks to solve issues and problems that arise in their work area and. Recommends solutions to line management. | 6006CCarries out detailed analysis to identify best solutions to problems. | 6006D Takes decisions though there may be no guiding precedent or where information is incomplete or unclear, assessing risks effectively.Uses personal experience to quickly and accurately identify causes of problems and arrive at possible solutions to test.Carries out risk analysis for Area of Responsibilityand /or Department on collection management issues. Monitors the effect of decisions and takes ownership of actions. |  |
| 6.vii. Change Management (Flexibility)CM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6007A Takes on new roles and tasks and is prepared to use and learn new methods. | 6007B Assesses and is open to alternative work practices.Reacts constructively to change and recognises that this may require different responses.  | 6007CEndeavours to incorporate change to improve working practices and productivity, and communicates this to designated team/staff. Helps others cope with change. | 6007D Continually seeks new ideas and implements improvements.Leads and communicates change.  |  |
| 6.viii. Communication |  | 6008BRegularly provides and receives feedback. | 6008C Runs clear team briefings using appropriate communication methods. | 6008D Runs clear briefings and talks to senior management using appropriate communication methods. |  |
| 6.ix. Meetings |  | 6009BActively participates in meetings, e.g. contributes to the aims of the meeting.Minute taking. | 6009C Arranges and chairs meetings within the area of responsibility or designated team. | 6009DArranges and chairs meetings at Area of Responsibility/Departmental/Institutional level and externally e.g. clear agenda and objectives. |  |
| 6.x. Strategic Analysis and Planning |  |  | 6010CSets and balances priorities within area of responsibility.  | 6009D Interprets relevant Museum and Departmental strategic goals and implements into viable Area of Responsibilityobjectives. |  |
| 6.xi. Learning and Development |   | 6011CIdentifies the training needs within area of responsibility and implements appropriate training, both ‘in job’ and formal courses.  | 6011D Sets clear boundaries for responsibility and action, ensures that individual development is linked to Collection Area needs and that staff are developed to meet future as well as immediate needs.Promotes a culture of excellence, creative thinking and consideration for what is critical for long-term success. |  |
| 6.xii. Training and Mentoring |  | 6012BTrains new colleagues, visitors and volunteers, e.g. induction and procedures. | 6011CD Delivers specialist skills training in area of expertise e.g. collections management, identification, valuation, specimen preparation, x-ray, etc. to colleagues and national and international visitors and museum professionals.  |  |

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| 6.xiii. Record KeepingCM CORE COMPETENCY (To Level B) CONSERV CORE COMPETENCY (To Level B) DATABASER /DIGITISER CORE COMPETENCY (To Level B)  | 6013AKeeps records and paperwork tidy and correctly filed. | 6013B Maintains record keeping systems for designated area of responsibility. | 6013CReviews records for designated area of responsibility and ensures they are up to date and maintained at the correct standard. Makes decisions about archiving of records for area of responsibility.  | 6013D Reviews record keeping in Area of Responsibility record keeping. Ensures systems are effective, efficient and information can be retrieved effectively. Develops Collection Area archive policy for curation records. |  |
| 7. Human Remains*These competencies are only specific to staff responsible for the repatriation of Human Remains* |
| 7.i. Human Remains: General  | 7001A Understands the legal framework and the collections management system/databases guidance documents Understands the museum policy & procedures for human remains | 7001B Contributes to internal consultations on human remains issuesFully conversant with policy and procedures | 7001C Contributes to procedures developmentHas day to day role in ensuring compliance through guidance on both Human remains specific issues on the collections management system/databases and HTA regulations | 7001D Develops policy & procedures for human remainsHas input into the museums strategy on human remains issuesUndertakes the museum’s response to external consultationsConsulted by external institutions on human remains issuesSits on external advisory bodies |  |
| 7.ii. Human Remains: Physical Return | 7002A Understands the cultural sensibilities of the community involvedUnderstands the procedures needed to process a return and the international and local regulations for transporting human remains | 7002B Able to liaise with various authorities and shipping agents to ensure full compliance with regulations | 7002C Plans and organises the return | 7002DWorks with all stakeholders on the process of return and agrees with the community all aspects of the return |  |
| 7.iii. Human Remains: Community Visits and Ceremonies | 7003A Understands the cultural importance of ceremoniesDeals with communities in a polite and respectful manner | 7003B Supervises ceremonies and visits within the agreed parameters | 7003C Plans and organises visitsHas input into the parameters agreed for any ceremony | 7003D Agrees the type and extent of the visit or ceremonyDevelops suitable policy & procedures |  |

**APPENDIX 1**

**Glossary**

**ABCD** (3002A) – see **Access to Biological Collections Data**

**ABS** – see **A**ccess and **B**enefit **S**haring

**Access and Benefit Sharing (ABS)** – the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization of the Convention on Biological Diversity (in short, Access and Benefit-sharing, **ABS**) aims at regulating the access to genetic resources and the fair and equitable sharing of benefits derived from their utilisation. The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources is one of the three objectives of the CBD. (<http://www.diversitas-international.org/activities/policy/cbd-1/access-and-benefits-sharing-abs>)

**Access to Biological Collections Data (ABCD) –** (3002A) **–** The **ABCD** Schema is a common data specification for biological collection units, including living and preserved specimens, along with field observations that did not produce voucher specimens. It is intended to support the exchange and integration of detailed primary collection and observation data. It is compatible with several existing data standards and attempts to be comprehensive and highly structured, supporting data from a wide variety of databases. ([http://wiki.tdwg.org/twiki/bin/view/**ABCD**/WebHome](http://wiki.tdwg.org/twiki/bin/view/ABCD/WebHome))

**Area of Expertise** (5003B) – a defined competency field agreed on by the line management where one is an expert in.

**Area of Responsibility** – this is a pre-defined work component for which one bears a certain responsibility such as the authority to plan and conduct work tasks. Depending on institutional management structures this could be a “Division” “Section” “ team"; or for staff at higher levels might be a "Department" such as e. Botany, Entomology, Palaeontology, Zoology, Conservation Centre etc;

**Backlogs**

Backlogs are accumulations of specimens that have not been fully processed e.g. due to the rate of incoming collections being higher than the processing rate. These are often a historical legacy and may go back 50 or more years!

**Bench fees** (2005C) – fees to cover for the use of the organisations facilities and services such as an area to work, staff assistance, locating relevant literature, tools such as microscopes, internet access etc. Some organisations either partially or completely waive these in return for improvement to the hosts collections such as specimen determinations, typification, updating taxonomy etc.,

**Best practice** (1101C) – the process of developing and following a standard way of doing things in the best way possible and in a way that multiple organisations can use.

**Biogeomancer** (5007C) – open source software for web-based georeferencing of natural history collections and observations.

**CETAF** (2001C) **–** see **C**onsortium of **E**uropean **Ta**xonomic **F**acilities

**CITES** (2003A) – see **C**onvention on **I**nternational **T**rade in **E**ndangered **S**pecies of Wild Fauna and Flora

**CC – see C**ollections **C**are

**CM** – see **C**ollection **M**anagement

**CMS** – see: **C**ollections **M**anagement **S**ystem

**Collections Care (CC) –** a usually holistic approachin a collections-holding institution of developing and implementing policies and procedures to protect the long term integrity of specimens and any associated data and documentation. The term usually mainly relates to conservation and preservation .rather than access and development for example.

**Collection Management** **(CM)** – ensures that objects are properly cared for, often involves the management of storage, conservation and record-keeping associated with objects; development of policies and standards for acquiring and deacessioning of objects. These set out what objects the museum wants to collect, how it intends to collect them and why and how it might dispose of objects.

**Collection Strategy** (1102D) – an action plan on identifying and evaluating gaps in the collection, gaps in cataloguing, gaps in access to collections, or issues of sustainability.

**Collections Management Systems** **(CMS) –** (3001B) – software that manages all aspects of a collection and its items from accessioning and deaccessioning through to incoming and outgoing loans, shipments, location tracking and internal movements, valuations, insurance and indemnity, and more.

**Collections Manual** (1201B) – a usually departmental or institutional written set of standardised procedures and provide guidelines for managing, providing access to and caring for a collection.

**Collections Policy Board** **(CPB)** – (2001C) – is a European working group on mostly directorial level addressing problems linked with the management of natural history collections. The mission of the CPB is to develop common policies and strategies, to encourage communication, and to promote best practice between the partner institutions within Europe. The CPB is a collaborative project result of the EDIT network. (<http://www.cetaf.org/activities.php>) and a working group of **CETAF**

**Collections Rescue and Recovery (CoRR)** – (1405A) – standardised collections salvage plans at the Natural History Museum London (NHM) that coordinates the museums response in an emergency situation for recovery of natural history materials when collections are at risk. Using this standard template the NHM has a unified collection’s rescue and recovery plan (CoRR). This joined-up approach allows for shared salvage materials and equipment. The plan also includes disaster planning for the specimens in the galleries and the molecular collections. The aim is to set the standard for best practice and define a common approach. (<http://www.nhm.ac.uk/resources-rx/files/collections-management-seminar-28072011-99481> and <http://www.nhm.ac.uk/natureplus/blogs/science-news/2012/05/22/collection-management-seminar-corr--developing-disaster-recovery-front-to-back--a-museum-wide-project>). Most institutions have similar plans developed to a variety of levels and covering a range of areas .

**Condition Report** – summary on the situation, status or quality of an object and on actions to improve the present condition.

**Condition Reporting Systems** (1502D) - Systems for documenting and making available information on the condition of items in the collections. Some electronic management systems have the facility to do this but could be a simpler home-designed spreadsheet for example.

**CONSERV** – see Conservation

**Conservation** (**CONSERV**) – preservation of the collections whether on display, in storage or on loan using preventive and interventive conservation measures.

**Consortium of European Taxonomic Facilities (CETAF)** – (2001C) – is a networked consortium of currently 35 scientific institutions in Europe formed to promote training, research and understanding of systematic biology and palaeobiology. Together, CETAF institutions hold very substantial biological (zoological and botanical), palaeobiological, and geological collections and provide the resource for the work of thousands of researchers in a variety of scientific disciplines. (<http://www.cetaf.org/index.php>)

**Consultancy -** advising, carrying out contract research, surveys, identification etc for which a fee is charged e.g g surveys of collections in other institutions, advisory work on new museums, museums undergoing change etc. for which a fee is charged

**Control of Substances Hazardous to Health Regulations 2002** **(COSHH)** – (5009C) – as amended is a United Kingdom Statutory Instrument that states general requirements on employers to protect employees and other persons from the hazards of substances used at work by risk assessment, control of exposure, health surveillance and incident planning. (<http://en.wikipedia.org/wiki/COSHH>). Similar regulations exist under other names in all EU countries

**Convention on Biological Diversity (CBD)**–a global agreement addressing all aspects of biological diversity: genetic resources, species, and ecosystems. The objectives of this convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding. (<http://www.cbd.int/>)

**Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** – (2001A) – is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. (<http://www.cites.org/eng>)

**Core Competency** – a fundamental knowledge, ability, or expertise in a specific subject area or skill set. In an organisation it is what the organisation/museum or institute/business does well and that distinguishes it from other organisations. They are the main strengths such as knowledge or technical capacities and strategic advantages. In the competency framework, they represent the fundamental competencies required to meet the expectations.

**CoRR** (1405E) – see **C**ollections **R**escue and **R**ecovery

**COSHH assessment** (5009C) – see **C**ontrol **o**f **S**ubstances **H**azardous to **H**ealth Regulations 2002

**CPB** (2001C) – see **C**ollections **P**olicy **B**oard guidelines for access to collections

**Dangerous Goods** (2003A) – solids, liquids, or gases that can harm people, other living organisms, property, or the environment. They are often subject to chemical regulations. (<http://en.wikipedia.org/wiki/Dangerous_goods>)

**Department** – now Earth and/or Life Sciences; is a unit of a museum or institution such as Earth and/or Life Science but in some organizations might be a lower unit in a hierarchy such as Zoology.

**Dermestarium** (4010C) – Facility holding flesh-eating (dermestid) beetles for cleaning skeletons.

**Designated Area of Responsibility** – formerly "collection/local collection/assigned collection". Note: at the NHM, competency varies depending on the size and range of the collection e.g. Level B might be responsible for day to day decisions on a few families of a group but managing the whole of Lepidoptera would be level C and managing all insects would be level D. This does not readily translate to smaller institutions where one person manages all insects.

**Destructive and invasive sampling policy** (2004A) – guidelines to control irreversible changes (including, sometimes, complete destruction) to the objects involved and to ensure the long-term survival of museum specimen.

**Disaster Planning** – usually a written plan that specifies procedures to follow in the event of an emergency such as an incident that threatens human safety, and damages or threatens to damage facilities and resources such as the collection.

**EMu Development Committee** (3011C) – Development Committee for the **E**lectronic **Mu**seum management system.

**Enquiry System** (2009D) – museums procedure on how to deal with queries to collection material and other collection matters.

**Environmental Monitoring** – processesand activitiesto characterise and monitor the environment in a collection, such as the temperature and relative humidity to avoid harmful effects on collection objects.

**Equal Opportunities** (6004C) – Stipulation that all people should be treated fairly independently from circumstances such as gender, religion, ethnicity, race, disability, etc. The aim is that jobs should go to the most qualified person and chances should be open to everybody interested. (wiki)

**Facility** – a recognised area that attracts interns and grants internationally and leads the strategic development in the field.

**Flat-file databases** (3009A) – a flat file database describes any of various means to encode a database model (most commonly a table) as a single file. A flat file can be a plain text file or a binary file. There are usually no structural relationships between the records. (<http://en.wikipedia.org/wiki/Flat_file_database>)

**Freedom of information regulations** (2009C) – UK law that gives one the general right of access to all types of recorded information held by public authorities, including local councils.

**Functionality –** the range operations that a database system can perform. Its suitability to address the needs of the user

**GBIF**– The **G**lobal **B**iodiversity **I**nformation **F**acility is an international open data infrastructure, funded by governments. It allows open access to data about all types of life on Earth (like the distribution data on plants, animals, fungi, and microbes for the world, and scientific names data), shared via the Internet by encouraging and helping institutions to publish data according to common standards. ([www.gbif.org](http://www.gbif.org))

**Geographic Information System (GIS)** – (5007C) – computer software to capture, store, visualise, question, analyse, interpret, and understand geographical data to reveal relationships, patterns, and trends.

**GIS** (5007C) – see **G**eographic **I**nformation **S**ystem

**HTA regulations** (7001C) – see **H**uman **T**issue **A**uthority

**Human Tissue Authority (HTA regulations)** – (7001C) – as one of the Competent Authorities in the UK under the EUTCD (The European Union Tissue and Cells Directive), has responsibility for regulating tissues and cells (other than gametes and embryos) for human application. The Directives regulate the procurement, testing, processing, storage, distribution and import/export of tissues and cells for human application. (<http://www.hta.gov.uk/legislationpoliciesandcodesofpractice/legislation/eutissueandcellsdirectives.cfm>)

**Integrated Pest Management (IPM)** – (1403A) – is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. (<http://www.epa.gov/opp00001/factsheets/ipm.htm>)

In collections, IPM is a method of preventive conservation that seeks to prevent pest infestation through measures regarding the building envelope, environmental control, protocols and procedures, examination and quarantine, awareness and training as well as governance. By understanding the nature and vulnerability of a collection in conjunction with a monitoring program for pests, this approach ideally prevents infestation and limits the need for chemical of physical treatment of collections. (cf. <http://museumpests.net/prevention-introduction/>)

**IPM** (1403A) **–** see **I**ntegrated **P**est **M**anagement

**Key Performance Indicators** **(KPI)** (3002D) – is a type of performance measurement and for an organisation a way to evaluate the success of a particular activity or progress toward strategic goals (<http://en.wikipedia.org/wiki/Performance_indicator>). For example numbers of loans. visitors in a year, number of specimens conserved/digitized.

**KPI – See K**ey **P**erformance **I**ndicators

**Leading** – being part of the group that defines and develops the strategic direction for your discipline.

* Looked at how Integrated Pest Management (IPM) has developed over the past ten years to deal with the increasing threat pest attacks pose to collections and buildings
* Shared new understandings about pest species and the risks they pose
* Was a platform for showing how successful training programmes have raised the profile of IPM both within the heritage sector and beyond
* Presented case studies covering a variety of practical control strategies and how these can work in both the traditional museum setting and the wider heritage context
* Formulated a set of guidelines and priorities for future work and research to make IPM even more effective
* Enabled people to share and discuss their problems and successes

**Preventive and remedial conservation** (1511C) – Preventive conservation: all measures and actions aimed at avoiding and minimizing future deterioration or loss. They are carried out within the context or on the surroundings of an item, but more often a group of items, whatever their age and condition. These measures and actions are indirect – they do not interfere with the materials and structures of the items. They do not modify their appearance.

Examples of preventive conservation are appropriate measures and actions for storage, handling, packing and transportation, security, environmental management (light, humidity, pollution and pest control), emergency planning, education of staff, public awareness,.

Remedial conservation: all actions directly applied to an item or a group of items aimed at arresting current damaging processes or reinforcing their structure. These actions are only carried out when the items are in such a fragile condition or deteriorating at such a rate, that they could be lost in a relatively short time. These actions sometimes modify the appearance of the items.

([http://www.icom-cc.org/242/about-icom-cc/what-is-conservation/#.U1Qa7cqogTY](http://www.icom-cc.org/242/about-icom-cc/what-is-conservation/%23.U1Qa7cqogTY))

**Preventive conservation tasks** (1511A) – Preventive conservation has the purpose of taking a number of scientific and aesthetic principles to minimise or eliminate potential deterioration or damage of objects caused by inherent ageing of the materials or by outside factors such as handling of objects. Preventive conservation includes a maintenance and conservation programme with tasks such as cleaning, the occasional consolidation work or planning of larger-scale restoration work. It incorporates all actions and procedures that aim to prolong the life of an object by eliminating or slowing its natural deterioration as far as is possible. (more: <http://www.depts.ttu.edu/museumttu/CFASWebsite/5332%20folder/Intro%20to%20Prev%20Cons.pdf>)

**Professional body** (4018B) – is usually a non-profit organisation that represents people of a particular profession and their interests and the public to maintain and enforce standards of training and professional ethics on one hand and to act as a labour union for the members of the profession on the other hand. For example, Society for the Preservation of Natural History Collections, ICOM, etc

**RDBMS database** (3010D) – see **R**elational **D**ata**b**ase **M**anagement **S**ystem

**Registry/Registrar - In Collections management** The person/office that deals with compliance with rules and regulations governing specimen transactions etc , negotiation of terms for loans. Most art/humanities and general museums have such an office. but it is less common in natural history museums.

**Registry - In database management –** a hierarchical database where important information governing the operation of the database system are stored such as field structure, access permission etc. Access to the Registry is usually restricted to system administrators and other designated staff.

**Relational Database Management System** **(RDBMS)** – (3010D) – (e.g. MySQL, SQLServer, and Oracle) is a type of database management system that stores data in the form of related tables. Many popular databases currently in use are based on the relational database model. RDBMSs have become a predominant choice for the storage of information in new databases used e.g. for financial records, manufacturing and logistical information, personnel data. An important feature of relational systems is that a single database can be spread across several tables. This differs from flat-file databases, in which each database is self-contained in a single table. (<http://en.wikipedia.org/wiki/Relational_database_management_system> and <http://www.webopedia.com/TERM/R/RDBMS.html>)

**Remedial conservation –** see Preventive and remedial conservation

**Risk assessment –** examination of what in the museum /herbarium work environment that could cause harm to people and collections so that precautions can be taken to prevent harm.

In the conservation context a risk management approach can provide a decision-making method for preventive conservation of a museum collection or group of collections. Risk is the chance of an undesirable change occurring. Risk assessment is the analysis of the magnitude of each and all risks affecting some entity.

A risk management approach to collection preservation issues involves four basic steps:

1) identifying all risks to collections,

2) assessing the magnitude of each risk,

3) identifying possible mitigation strategies, and

4) evaluating the costs and benefits associated

with each strategy.

(<http://www.museum-sos.org/docs/WallerSPNHC1995.pdf>)

**SEM** (4010B) – **S**canning **E**lectron **M**icroscope

**Taxonomic Databases Working Group** **(TDWG) –** (5007C) **–** Biodiversity Information Standards; TDWG is a not for profit scientific and educational association that is affiliated with the International Union of Biological Sciences. ([www.tdwg.org](http://www.tdwg.org))

**TDWG** (5007C) – see **T**axonomic **D**atabases **W**orking **G**roup

**Trends in conservation and conservation ethics** (1511C) – in a museum context, conservation ethic covers all measures and actions aimed at safeguarding tangible cultural heritage while ensuring its accessibility to present and future generations. Conservation embraces preventive conservation, remedial conservation and restoration. All measures and actions should respect the significance and the physical properties of the cultural heritage item. (<http://www.icom-cc.org/242/about-icom-cc/what-is-conservation/#.U1Qa7cqogTY>)

**Users** (1201D) – all people with a defined interest in specific objects (physical or digital) or subjects of a collection or exhibition such as scientists, journalists, members of the public, school classes and teachers, etc.

**Virtual and physical access** – access to collection objects digitally or naturally for scientific as well as popular scientific research purposes.

**Workflows –** a sequential staged series of procedures designed to achieve a task. Different stages might be assigned to different individuals For example in the digitising of an insect specimens this might be remove from collec tions “unpin specimen – unpin label – photograph image and label, re-pin specimen, put back in collection, capture data from image – georeference , etc”

**X-rays** (4010B) – X-radiation is a form of electromagnetic radiation used in research for non-destructively imaging the internal structure of objects.

**APPENDIX 2**

**List of authors and contributors**

To be added