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BIOLOGY CURATOR'S GROUP

Biological Collections at Risk

An action pack for curators

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Contents

2. Policy Statement on Safeguarding Collections at Risk

Biological collections represent a unique and irreplaceable scientific resource of enormous proven value and unknown future potential. They contain material and information of immense environmental, historical and cultural importance and so provide the basis for a wide and popular range of educational and public services. In recognition of this the Biology Curator's Group is committed to safeguarding these collections for present and future use by both the local and wider communities they serve.

Accordingly, the Group seeks to gain assurances from bodies responsible for the care of biological collections that they: -

- *acknowledge the unique and irreplaceable nature of biological collection;*
- *understand their full scientific, environmental, historical and cultural value for providing a wide range of services both for the local community and wider audiences; and*
- *accept that specialist knowledge, skills and experience are required for their ongoing care, accessibility and effective use by the public.*

The Biology Curator's Group, in turn, recognises the constraints on resources facing many museum governing bodies and seeks to help provide the best possible solution for these irreplaceable collections within these constraints. In order to achieve this the Group requests that any governing bodies proposing changes that are likely to have impact on biological collections should: -

- *provide the Group with details of the proposals and of plans for their future care and usage;*
- *allow the Group to submit comments to any relevant body, committee or working party regarding such plans and proposals; and*
- *keep the Group fully informed as to the ongoing situation.*

The Biology Curator's Group are always pleased to offer advice on all aspects of the care, access and use of biological collections.

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1. Introduction

The safeguarding of biological collections has always been a high priority for the Group. Our past correspondence with museum governing bodies, the Sunflower Campaign, Beetle Down and our close involvement with FENSCORE, the Orphan Collections Working Party and the International Accord on the Value of Natural Science Collections (see 8. *Useful References)* are all evidence to this. However, an increasing number of wide-ranging reviews being undertaken by museum governing bodies has led the BCG committee to review how best to continue its actions to safeguard collections. The resulting *Biological Collections at Risk Initiative* is an ongoing process aiming to develop a more pro-active role for the Group by exploring ways of working more closely with all parties concerned. Initial developments include:-

- This **Curators Action Pack** based on experience BCG has gained over recent years and approaches made to a wide range of museum related organisations. The pack aims to provide both direct information designed to help the Cell deal with specific cases of collections at risk and, support information to assist and promote curatorial advocacy on behalf of the collections.

- **An Information Pack for Museum Governing Bodies** based on the *Curators Action Pack* (containing sections 2,5,6,7 & 8) aims to provide museum governing bodies and other museum related professionals with a greater awareness and understanding of the requirements, importance and relevance of biological collections to the organisations which they serve. An additional section, *Working with the BCG,* aims to promote the Group as a source of specialist advice capable of working with museum governing bodies in formulating policies which affect biological collections.

- **The BCG Collections Monitoring Cell** has been expanded and re-organised in order to allow the Group to respond more quickly and more comprehensively to situations while affording a greater capacity to monitor wider trends. The Cell will also work closely with the Group's Campaigns Cell to promote greater appreciation and usage of collections.

Future Developments

The developments so far represent a starting rather than end point. Both packs provide a basis on which to build constructive channels of communication between all parties concerned with preserving these irreplaceable collections for future generations. Their publishing provides scope for consultation on a wider front. Further ideas, reactions and comment will be taken into account with present sections being updated and new ones added as required.

3. Checklist for Curators with Collections at Risk

In order to effectively embark on a programme of safeguarding a collection that is at risk it is vital to have full and precise information and to have that information as early as possible. Please inform the Collections Monitoring Cell of any potentially collection threatening situation, even if it is felt that no action is currently required. Such information may prove useful when dealing with other cases and for monitoring wider trends while providing a firm platform should any action be required at a later date. The following checklist outlines the various types of information required by the Cell from the curator(s) concerned. If you feel your collection is likely to become at risk, for any reason, please send as much of the following information to the Collections Monitoring Officer as is possible: -

- **The nature and time scale of the risk to the collection**, including any budgetary implications if known. Copies of any proposals or other relevant circulation's should be sent as well provided these do not breach any organisational confidentiality or contractual obligations. If either of the latter are the case please inform the Cell of this.
- **Your interpretation of the actual or potential consequences of the risk**.
- **Details of the size, nature and importance of the collection**, both in itself and in relation to other regional (national and international) collections so as to allow the Cell, along with yourself, to consider the best arguments in its defence. Such information can follow later if its compilation is likely to delay alerting the Cell. Copies of existing documents, annotated where necessary will usually suffice.
- **Details of any service based on the collection** e.g. public events and services, local society usage, educational usage (primary, secondary and higher), links with other departments etc. Any readily available figures relating to such events and usage would also be useful. Again, such information can follow later if its compilation is likely to delay alerting the Cell.
- **Current details of biological collection-based, and related, staff** including any changes to these in the last five years.
- **Details of any other proposals relating to the collections** e.g. HLF or Millennium bids etc.
- **Contact details for any members of the Museum Governing Body** or involved organisations you would like us to approach.
- **The best contact (written, verbal and, if applicable fax/e-mail) for future communication between yourself and the Cell.**

After the initial contact, please remember to keep the Cell informed of any developments, even if the situation resolves itself. This information is useful for our monitoring scheme and for dealing with future cases.

4. Outlines of BCG Approaches

The Group can take one or many of the following responses to a collection which is 'at risk'.

Discussion within the Group
When a potential threat has been identified but no direct action is currently required it is useful to monitor the situation and gather information for discussion with members of the Cell, the BCG Committee and any other members identifiable as having relevant experience. This affords the Cell a firm platform should direct action be required at a later date.

Involvement of other groups: -

- *Other curatorial groups.* The Cell maintains close links with a number of other curatorial groups. These may be approached to exchange information or plan co-ordinated responses when appropriate.
- *Museum organisations.* The Cell is building upon links with the full range of relevant museum organisations. These may be approached for information, advice and support as required.

Contacting Museum Governing Bodies: -
As soon as is appropriate, the Cell will initiate dialogue with the museum governing body concerned (and any other organisation directly involved in the situation) with a view to any or all of the following: -

- Clarifying details of the situation and requesting to be kept informed of developments.
- Offering advice - written or by means of a visit by members of the Group.
- Notifying them of any BCG concerns and, where appropriate, informing them of any approaches made to other concerned groups or organisations.
- Requesting permission to submit comments to any committee, review body or working party responsible for developing, reviewing or passing proposals affecting the collections.
- Promoting greater involvement and/or consultation with the in-house curator(s) concerned.

Involving the Curator(s) concerned
The Cell will, of course, provide the curator(s) concerned with a full commentary of actions taken and responses received in order to allow the curator(s) to steer subsequent actions.

On a Wider Level
The BCG committee and relevant cells endeavour to maintain a high profile for *Collection at Risk* issues and for the importance, value and use of biological collections in general, by means of: -

- Leaflet campaigns directed at museum governing bodies, other related museological organisations and the full range of museum user groups.
- Publishing and promoting articles in a wide range of museological and related journals and newsletters and, when appropriate, the local and national press.
- Giving and promoting presentations at relevant conferences and meetings.

5. Arguments in Support of Biological Collections

The following compilation is largely based on the experience of BCG members. In addition, reference has also been made to a number published sources (see 8. – *Useful References).* Of these, the work of former Committee member, Charles Pettitt, namely *Putting 'Bloody Mice' to Good Use* (Museums Journal) and *The Cultural Impact of Natural Science Collections* (The Value and Valuation of Natural Science Collections Proceedings). Any curators or other museum related professionals not acquainted with these works are strongly urged to become so.

Biological Collections play an important role in:

- Our understanding of biodiversity *(see 1,2 & 3.)*
- Supporting nature conservation *(see 4.)*
- Supporting society *(see 5 & 6.)*
- Furthering education *(see 7.3, 7.4 & 7.5.)*
- Serving the local community *(see 7.)*

1. *Why do we need to keep dead plants and animals?*

Biodiversity

1.1. Specimens held in biological collections form a physical inventory of biodiversity. Biological specimens need to be kept in preference to data and images alone because of the wide range and nature of information contained physically within them, some of which, with the development of new investigative techniques, are only now becoming available *(see 2.2.).*

Type specimens

1.2. Around 1.4. million species have been described to date. The name and description of every one of these is based on a type specimen stored in a biological collection somewhere in the world. These represent definitions for the living world and, as such, vital references for future work on understanding biodiversity.

Taxonomy and Systematics

1.3. Taxonomy and systematics are concerned with the scientific naming and classification of species (NB while the two terms vary in precise definition they are, for the purposes of this section, considered as broadly synonymous and interchangeable). Such research underpins all other aspects of biology. While taxonomic and systematic research may not take place in all museums, the specimens themselves may still be involved through loans to other institutions. The House of Lords Select Committee report on Systematic Biology Research states that such research *"is fundamental to one of the most challenging environmental issues of the day - biodiversity and its conservation"* acknowledging that *"Collections are fundamental to conducting useful systematics".*

Extinct species

1.4. Biological collections house extinct species. These specimens now represent the primary source of information on these species which can be used to surprising effect, e.g. *information from DNA analysis of museum-stored Quagga specimens has led to an attempt to re-create this extinct zebra by selective breeding from Plains Zebras.*

Species extinct in Britain

1.5. Biological collections also hold specimens of species extinct in Britain. The success of reintroduction schemes from abroad can be aided by reference to specimens and their labels held in collections.

1.6. The Natural Environment Research Council's report on Evolution and Biodiversity states "*The UK has a global responsibility with respect to its national, university and local collections of material in museums, herbaria and botanic gardens, which are among the greatest in the world and are suffering from lack of maintenance and research because of insufficient funds*". The UK holds some of the largest and most important collections in the world including around 20 million specimens held outside of the nationally supported institutions. Developments in information technology are now allowing the potentially encyclopaedic nature of these collections to be realised. *Global Responsibility*

2. *But surely we can use keys and identification books to study biodiversity?*

2.1. Keys and guides are certainly useful but it is important to remember that they are always based, in part, on biological collections. Furthermore, for many parts of the world and for many living groups no such published aids exist. Even many familiar groups are still under review, e.g. *The Botanical Society of the British Isles' recently published Handbook of Dandelions of Great Britain lists 103 more species than in the previous key.* *Biological keys and identification books*

2.2. Historic collections are now being investigated in ways never envisaged by their collectors. New techniques, e.g. electron microscopy, thin layer chromatography, molecular biology, DNA sampling, etc., are vastly increasing our understanding of biodiversity and providing new opportunities for its conservation. *New techniques*

2.3. New species are constantly being discovered both in this country and around the world, e.g. *Index Kewensis, the Royal Botanic Gardens listing of botanical names, recorded 13,604 new species of flowering plants between 1986 and 1990.* It is estimated that we share this planet with between 10 million and 100 million other species, of which only 1.4. Million have been described. The only way to determine whether a species is new or not is to compare it with specimens of similar species already named and described and housed in biological collections, *e.g. The Bottle-nosed Dolphin, Tursiopos truncatus, was divided into two species after researchers examined almost 300 dolphin skulls housed in biological collections. Museum bird skins have been used to distinguish a rare species of petrel from its more common relative, which has resulted in it receiving special protection.* *New species*

2.4. Biological curators receive thousands of enquiries from conservationists, researchers, planners, environmental health officers, customs officers, etc. every year. Identifications are often only confirmed by direct comparison with named museum collections *Assisting other professionals*

3. *Why do we need to keep so many specimens of each species?*

3.1. Understanding how different species are related to one another allows us to classify the living world. Such knowledge allows us to make better and more effective use of the nature, *e.g. the anti-viral drug castanospermine was found in small quantities in the Morton Bay Chestnut, Castanospermum australe. Taxonomists at Kew found this Australian legume to be closely related to an Amazonian genus Alexa. This genus turned out to have both greater quantities of the drug and less toxic forms of it.* *Classification*

3.2. Individual species are not identical. Accurate classification requires an understanding of how much variation occurs within each species. Such study obviously requires access to large numbers of specimens of the same species. *Variation*

3.3. While the selective collection of specimens still continues today it is important to note that specimens already contained within biological collections reduce the pressures for wide-scale collecting. This is particularly important for scarce and endangered species. *Reducing the need to collect*

3.4. Associated information contained on specimen labels greatly enhances the usefulness of a specimen. The presence of well documented collections allows vast amounts of data on a wide range of topics to be brought together in a short period of time. *The importance of labels*

3.5. Details of localities from which different specimens were collected allows the to use collections to investigate species distribution. While written records can also assist with this, should a record be disputed there no way of going back to the original plant or animal unless a voucher specimen has been stored in a collection. *Locality information*

3.6. The date of collection of specimens is important as it allows investigation of change over time, whether in form, distribution or habitat composition. While it is possible to find out what currently lives where through field work, it is impossible to determine how this has changed without reference to historical biological collections, e.g. *after nuclear devices were tested in the Pacific, there was much concern about radioactive contamination of the environment, especially of resident plants and animals. But how could anyone guess what the levels were in these organisms before the tests? Specimens in collections provided the answer.* *Date of collection*

4. *How do collections help conserve nature? – They're all dead!*

4.1. Contrary to popular belief, museums today do not kill birds and mammals for their collections. Specimens are derived from animals found dead as a result of cold weather, being caught by cats, hit by cars etc., *e.g. Liverpool Museum received a large number of birds for its collection as a result of an oil spill in the River Mersey. The company responsible paid the Museum to identify all the dead birds found as a result in order that a full report on the damage caused could be produced. Identification involved cleaning the birds which were subsequently added to the collection so as to be available for future research for the benefit of wildlife.* *All these stuffed birds and mammals turn my stomach – it cruel!*

4.2. It is true that many mammal and bird specimens in museums, dating back to Victorian times, were shot, often as hunting trophies. Housing such specimens does not mean that museums condone their method of collection. We cannot reverse the past but we can make good use of them for the benefit of wildlife. *Making good use of past cruelty*

4.3. The massive amount of information held by biological collections is of enormous importance to nature conservation. A report by English Nature on nature conservation states *"provincial museums' and universities' collections also continue to be an important source of reference and data supporting survey and other research".* *Ask English Nature*

4.4. Surveys and distribution maps of plants and animals are of fundamental importance to developing nature conservation strategies. Biological collections not only assist with this process by providing an identification resource but also through the provision of information on historical distribution and occurrence, thus providing a better idea of what changes are taking place and what needs to be done. *Surveys and distribution maps*

4.5. Biological data is of vital importance for processing planning applications and environmental impact assessments. Claims made in associated reports are open to question unless they can be verified by voucher specimens held in collections. *Planning applications*

4.6. Successful habitat re-creation and regeneration programmes rely on accurate data on what is what was and what should be in any particular habitat. Biological collections provide important information towards this. *Habitat re-creation*

4.7. Successful species recovery programmes require accurate information on habitat requirements. Biological collections can play an important role in formulating these. *Species recovery programmes*

4.8. Pollution represents a major problem wildlife. Biological collections can be used to monitor levels of pollution either by correlating data from indicator species or through chemical analysis of specimens collected over a period of time; e.g. *lichens are well known indicators of atmospheric pollution. Reference to historical lichen collections can provide information on changes over time and thus help towards developing anti-pollution strategies. Similarly, research at Manchester Museum has shown that the shell of the common winkle can be used to establish an accurate measure of critical* *Pollution*

levels of radiation in coastal waters. Dried foliage samples stored in air-tight metal containers were recently analysed to study the decline in the concentrations of PCBs in the air of rural England since the chemical's use was restricted in the 1970s.

4.9. Declines in species populations, as monitored in the field, often require biological collections for explanations, e.g. *the cause of falling populations of certain birds of prey in 1960s was only explained by comparison of eggs collected before and during this time. It was found that eggshells had become thinner, leading to a higher rate of premature cracking. After correlation with other information using the precise date and location data associated with the specimens, the cause was found to be DDT pesticides. DDT has subsequently been banned.* *Population declines*

4.10. The potential effects of global warming on both individual species and on habitats can be predicted by monitoring past changes in distribution of sensitive species as portrayed in biological collections. The Natural Environment Research Council's report on Evolution and Biodiversity notes *"Future enlargement of collections is necessary not only to continue the documentation of biodiversity - as yet far from complete - but also to permit the study of biological response to changes in global climate".* *Global warming*

4.11 Biological collections provide support for the enforcement of many wildlife laws, *e.g. many museums provide identification services for material seized by customs and excise staff suspected to be in breach of the Convention on International Trade in Endangered Species (CITES) while the successful prosecution of badger baiters has been achieved through the identification of hairs found on suspects or their equipment.* *Upholding the law*

4.12. Many biological collections are linked to, and provide support for biological recording schemes and record centres. *Biological recording*

4.13. Authors of the many books and guides on natural history often consult biological collections during their preparatory research. While the value of such books in promoting public awareness and understanding of our natural world is generally acknowledged, the role of biological collections in their preparation is usually overlooked. *Promoting public awareness of the natural world*

4.14. Museum exhibitions, events and lectures based on biological collections contribute to a greater public understanding and appreciation of nature, both local and world-wide, and the need to conserve it.

4.15. Amateur naturalists play an important role in monitoring, recording and conserving nature. Biological collections and their curators can provide vital support for such work. *Helping amateurs*

5. *Of what benefit can a collection of dead plants and animals possibly be to people?*

5.1. Biological collections support a whole range of disciplines and professions for which the end product is valued but the role of the collections in reaching it is often unnoticed. *A recent U.S. publication, "Floristics for the 21st Century" listed 46 different professions which might use taxonomic information.* *Supporting other professional*

5.2 The use of biological collections to study relatives of crop species can assist breeding programmes to improve and modify yields, e.g. *The discovery of seeds of a new species of wild tomato in a museum collection led to a new cultivated hybrid with an increased soluble solid content - estimated to be worth an extra $8 million per year.* *Food and Agriculture*

In a similar fashion disease and pest resistance can be improved, *e.g. wild relatives of crop plants such as wheat, rice and potatoes possess valuable genetic characters that give resistance to disease, pests or environmental stresses.*

Biological collections can be used to provide early and accurate identifications of, often, quite indistinguishable pest species. They can also help in the search for natural predator species to help reduce the problem, e.g. *A mealy-bug outbreak in Zaire costing $1.4. billion per year was controlled when taxonomists discovered the effective parasite in South America and supervised its introduction to Africa.* Other information associated with biological collections on pest life cycles, larval growth patterns, mimicry, polymorphism and migration can be used to further control pest species, e.g. *Museum collections have been used to locate locust outbreak sites and track traditional migratory patterns.*

Biological collections can be used to predict the viability of growing crops in new areas. Location details on labels can be correlated with environmental data such as rainfall, temperature, altitude, soil type etc.

5.3. Environmental health officers use biological collections to identify the often mangled, cooked or partially digested animal remains found in food, from a slug in milk to bones from a suspect take-away. The collections are also used to quickly identify pest infestations, either by direct reference to biological collections or through the training of professionals based on them. *Environmental health*

5.4.. Half the worlds medicinal products are obtained directly from plants yet only a small proportion of species have been screened for pharmaceutically useful compounds. *Screening of only 150 species of leguminous plants at Kew revealed a new drug with potential HIV application.* The search for new cures, however, continues. Studying the chemistry of plants kept in biological collections can provide clues on what plants to look for on subsequent field expeditions, thus reducing costs while increasing efficiency. Conversely, biological collections are also of use in determining the identity of plants found on such expeditions. *Finding cures*

One source of information about medicinal plants as yet to be fully explored is the labels on old specimens in collections: *a survey of the Harvard herbarium revealed that many labels contain information about the medicinal use of plants by indigenous peoples.*

5.5. The understanding of many diseases such as bilharzia, bubonic plague, schistomiasis, malaria and river blindness have been assisted by the precise identification of the animals involved in transmitting them through reference to biological collections.

5.6. Biological collections also provide rapid identifications for patients who have either eaten plants or fungi suspected of being poisonous or have been bitten by animals thought to be venomous.

5.7. Biological collections can assist in the detection of crime, *e.g. collections have been used for the identification of plant fragments, seeds and pollen grains, animal hair etc., linking suspects to the scene of the crime. Identifying fly maggots present and relating this to the biological sequence of decomposition can approximate the time of death of a partially decomposed body.* *Solving crime*

5.8. Biological collections play an important role in archaeological investigations by means of comparison, identification and dating of bones, bone fragments seeds and pollen grains. Many of their finds are subsequently used for museum displays. *Archaeology*

5.9. Ethnologists require bits and pieces of feather, fur, skin, bone, shell, botanical material etc. found as parts of artefacts to be identified. This often requires reference to biological collections for comparison and identification. As above, many of these artefacts are used as display items in museums. *Ethnology*

5.10. Curators of decorative arts, antiquities and maritime collections often require wood employed in their specimens to be identified through reference to timber collections. Once again, many of these artefacts are used as display items in museums. *Timber artefacts*

5.11. Biological collections can also provide information on social history. They have been described as being *"like a series of diary dates with three dimensional pieces of the living world attached"*. *Social History*

5.12 Both student and professional designers and engineers have used nature as inspiration for their design, *e.g. a top yacht designer spent much time studying tuna fish specimens as an aid to designing faster yachts. Research into the reduction of drag on airlines has involved the study of shark skins held in biological collections.* *Engineering and design*

6. *All this work is fine for the larger institutions....*

6.1. All biological collections represent jigsaw pieces in a global biodiversity database and, therefore, have the potential to be of value not only locally but world-wide too. This can be promoted through documentation, the publishing of catalogues and the running of a loans programme, while ongoing developments in information technology are vastly increasing the potential accessibility of local and regional collections. *Part of a bigger picture*

6.2.. Many local collections contain very important specimens and collections, sometimes unknowingly. There are many examples of important specimens and collections coming to light after decades in storage *e.g. a dusty old collection of plants received by Liverpool Museum from the Liverpool Chemists' Association was nearly thrown away due to its seemingly poor condition. Fortunately, it was kept as it later turned out to be the herbarium of J.F. Royle, an important and pioneering collection of plants from northern India, rich in type material and missing for over a hundred years. This collection now represents Liverpool Museum's single most important herbarium.* *Discovering 'green' treasure*

6.3. Biological collections have a regional and local scientific value through their interpretation of the local environment, its protection and improvement. The importance of this role should not be overshadowed by the global importance of the collections of larger institutions. *Local scientific value*

7. *Of what benefit are all these dead plants and animals for the local community?*

7.1. Exhibitions and displays based on biological collections represent some of the most popular attractions within museums. While it is possible to buy in travelling exhibitions, only local collections can provide the basis of displays and exhibitions that interpret the local environment and its importance. *Attracting the public*

7.2. Biological collections can make an enormous contribution to the running of a popular and successful events programme. Furthermore they provide the basis for tapping into the massive public popularity of natural history (as evidenced by the ratings for nature programmes on television) by running events based on topical natural history issues and campaigns. *Popular events*

7.3. Biological collections play an integral role in the delivery of any museum schools service either through visits to the museum and collections or by means of a school loans service. Biological collections are of direct relevance to all Science Key Stages of the National Curriculum. *Schools and the National Curriculum*

7.4. Biological collections also represent an important resource for students of higher education through the provision of training in identification, taxonomy and classification and of access to reference material for a wide range of research and project work. *Higher and further education*

7.5. Biological collections offer an excellent resource for supporting evening classes and other adult learning opportunities. Many museums have close links with local universities and/or the Workers Education Authority for this purpose. *Adult learning opportunities*

7.6. Biological collections provide a resource for artists and designers, students and professionals alike, studying and incorporating natural designs in their work. *Artists & designers*

7.7. Biological collections act as a focus for the study of local natural history. Many museums have very active local natural history societies based with them. Benefits from this can include the addition of well identified specimens for the collection and voluntary input into their curation while helping to dispel the myth that museums and their collections have nothing to do with *real* nature conservation. *Local natural history societies*

7.8.. Biological collections provide the basis for answering the thousands of enquiries brought, posted or phoned in by members of the local community. *Public enquiries*

7.9. The importance of biological collections in contributing to the success of a museum does not just benefit the local community directly, but also indirectly by helping to boost tourism and thus the local economy. *Tourism and the local economy*

7.10. Today, museums have to compete with an ever-wider range of public attractions. It is worth remembering that most of these do not have the depth of resource represented by the museum's collections. Biological collections often represent the largest component of these collections which, when used imaginatively hold the key to providing a unique attraction as exemplified by Liverpool Museum's Natural History Centre and similar developments elsewhere. *Out-competing the competition*

7.11.. Museums play an important role in establishing local identity. The wealth of material contained within biological collections can have a major role to play in this. While locally collected material has an obvious role to play here, material collected from *afar* can also be of use as the collectors were often of local origin thus allowing the past adventures of local people to be told. *Local identity*

8. *A word on serendipity.*

An argument based on the possibility of finding a use for something at some point in the future would generally be regarded as a weak one. However, in the case of biological collections (as illustrated here), there have been so many cases of specimens being used for purposes vastly different to the purposes for which they were originally collected that serious consideration should be given to this.

6. Prevention is better than Cure

When a collection becomes 'at risk' it is the aim of the Group to highlight the benefits afforded by the collection to the museum governing body concerned. It must be realised, however, that by the time such a situation has arisen strong opinions on the role and value of the collection have already been reached by members of the governing body. Reversal of such opinions can, at best, be difficult and is more often a process of damage limitation. The adage, *prevention is better than cure*, must, therefore, be given serious consideration. *Prevention*, in the form of ongoing curatorial advocacy, is crucial, as illustrated by a simple review of some situations likely to lead to collections becoming at risk :-

- **Diminishing financial resources** is a recurring theme in cases of collections at risk. It is vital that when hard economic decisions have to be made the value of the collections to the service are already fully appreciated by the decision-makers.
- **Lack of awareness** on the part of policy and decision-makers of the benefits of biological collections represent a major hidden danger. Curators must take all opportunities to ensure such awareness.
- **Changes in key personnel** (managers, trustees, councillors, etc.) can lead to changes in museum direction and emphasis. How well collections weather such changes depends on their recent track record in benefiting the service and the curators zeal to communicate these to new personnel.
- **New thinking,** i.e. proposals aimed at updating the image and delivery of service, at face value, is to be welcomed. It is important, however, to distinguish between proposals that provide new opportunities and those that sacrifice basic collection requirements for the sake of modernity.
- **Curatorial complacency** can occur unknowingly over a period of time. It is vital to ensure that curatorial work fits closely with the aims of the parent organisation. When this is not obviously apparent curators must take opportunities to provide explanation.

What opportunities exist within your organisation for advocacy? How well are they taken?

- **Verbal:** Does your organisation run a programme of staff presentation allowing colleagues to see what others do? If not, could one be initiated? Do any committees you attend provide a means of advocacy? Are you able to feed information to more senior staff attending influential meetings?
- **Written:** Do minutes from meetings you attend provide circulate up through the management structure? What input do you have into development proposals and bid documents? Do they portray the importance and use of the collections within the context of the aims of the parent organisation? Does your organisation have an internal newsletter for various members of staff to promote topical aspects of their work? If not, could one be started?
- ***Actions speak louder than words.*** One of the best ways of communicating the value of the collections to museum governing bodies is through example. Biological collections form the basis for long and short term displays, events, talks, education programmes, enquiry services, research (academic and popular) project work and links with other organisations. To what extent are your collections used in this way? Does such work receive a high profile, e.g. through events/*what's on* listings (both within and without the museum), articles in the local press (interesting enquiries, exciting new projects, innovative events)? Does your work with various collections user groups generate positive feedback e.g. letters from school children? If so, are others aware of this?

  In short, is your hard work likely to be noticed by members of the museum governing body?

7. Useful Contacts

The following contacts are correct at the time of publishing (October 1997). Details of any changes will be published in the *Biology Curator*. Updated sheets and new sections will be produced as and when necessary.

A note on the composition of the BCG Collections Monitoring Cell

- **The Collections Monitoring Officer** represents the main contact point for all matters relating to collections at risk. If, for some reason, the Collections Monitoring Officer the Groups Secretary or Chair may serve as back-up contacts.
- **The Assistant Collection Monitoring Officers** receive summaries of, and provide comment on collections at risk cases. Delegation of specific cases may occur when required. This role is open to all members subject to agreement by the group's Committee. If you would like to become more involved, please contact the Collections Monitoring Officer.
- **The Regional Collection Monitors** are responsible for feeding any local concerns on the well-being of biological collections within their area to the Collections Monitoring Officer, both from within and without the curatorial profession e.g. county nature conservation trusts, local natural history societies and the plethora of other collection user groups. This should not dissuade any curators from contacting the Cell direct.

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8. Useful References

Biology Curators Group

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