

6

LEGAL AND INTELLECTUAL PROPERTY ISSUES

SIMON J. OWENS, ALYSON PRIOR
AND ROY FUSCONE

86

OBJECTIVE

In this chapter, we identify and address the key legal and intellectual property issues that pose barriers to the successful implementation of infrastructure networking. As part of the study made within *ENHSIN*, the authors undertook the following:

- ♦ To post a questionnaire to all participants to determine their current policies as related to databases and intellectual property.
- ♦ Research, largely from the literature, on the current laws relating to partnerships, laws that related to the creation and provision of electronic information, and to intellectual property.
- ♦ A search for examples of legal and intellectual property issues that related to the creation and provision of electronic information – the example of *CONABIO*.
- ♦ To provide analysis of the results.

BACKGROUND

Several European taxonomic institutions hold exceptionally large specimen collections that represent, worldwide, the plant kingdom, and/or the animal kingdom and/or the fungal kingdom. These collections are essential to science, and support substantial areas of science globally. The scientific support is particularly critical in the areas of conservation and sustainable

use for they are the primary sources of data for baseline biodiversity research (surveys and inventories).

Prior to the Earth Summit, the UN Convention on Environment and Development in Rio de Janeiro in 1992, for scientists working in universities and institutes throughout the world, user access to these specimens and their associated information was mainly cost free, with no bench fees or other facilities fees charged. A visit to a collection on-site would incur car travel expenses, a rail or airfare and accommodation; or a loan of material might require payment of stationery and postage costs. In addition, for many institutions, the transfer of material removed from specimens (destructive sampling, which includes pollen and/or DNA) was free to bona fide scientists. No scientist would need to sign any agreement relating to the use of the data. However, the university or institute holding the specimens normally required an acknowledgement from the visiting scientist or user of the source of information. Generally no one scientist, university or institution lost out since consultations or loans are reciprocal except for collections that are large and diverse, and for which the numbers of loans and visitors are therefore often disproportionately large.

Since 1992, and the signing and ratification of the Convention on Biological Diversity by 186 Parties, this situation has begun to change, but different universities and institutes are at various stages of development in their policies on access to and use of their collections. Several institutions, for example the National Commission for the Knowledge and Use of Biodiversity in Mexico (*CONABIO*), the National Herbarium of the Netherlands, New York Botanical Garden, Missouri Botanical Garden and the herbaria of Sydney and Perth in Australia, have already made images of specimens available on their web pages that can be accessed and downloaded without charge. They see no need, nor any reason to prevent access by this means, considering that these baseline sets of data should be freely available and not subject to any legal or intellectual property restrictions. Graves (2000) argues that the fundamental problem is not free transfer of museum or herbarium data, since free access to specimens and data has been provided to bona fide researchers for as long as museums and herbaria have existed. The problem is to whom the data is transferred and for what purpose.

Graves (2000) argues that those who wish to use data in bioinformatics networks must provide safeguards that include IPR, commercial use and licensing, appropriate acknowledgement in publications, safeguards for sensitive (endangered species) data and privacy rights for collectors and researchers. Data can be mined from the current networks and databases, repackaged and sold, transferred to third parties and used to compete for grants with museums, botanic gardens and herbaria. Data requests should, therefore, be handled on a case-by-case basis. Reliance on the honour system to protect IPR is naive.

The drive to access data has also been fuelled by the critical situation that we face relating to conservation of biodiversity and by governments encouraging the expansion of electronic provision of information. It is also hardly surprising that systematists, ecologists, conservation biologists and others

relish the prospect of a situation where the information on any taxon, in any kingdom, in any institution in Europe is searchable electronically. The need for a costly visit to another institution may be less necessary.

THE RESULTS OF THE QUESTIONNAIRE

The first stage of the contribution to identify and address the key legal and Intellectual Property issues was to gather all the relevant information that existed concerning the policies, procedures and current practice of those institutions participating in *ENHSIN*. This was carried out by means of a questionnaire, which was planned and written by those involved in the intellectual property component of the Network, and distributed to participating institutions in 2000. The questionnaire is given in the Appendix.

The results of the analysis from those questionnaires that were returned are listed below:

- ♦ No museum or botanic garden has as yet a firm, written policy on IPR for specimens, for databases, or for images other than for line drawings and paintings.
- ♦ All museums and botanic gardens believe that they are the owners of the specimens in their collections. This appears to be an assumption based on accessioning. National laws may support this and past practice may endorse it.
- ♦ In addition, the Common Policy Guidelines (Garcia *et al*, 2000, Williams, Davies & Cheyne, 2003) indicate that upon accession, the specimen is deemed to be owned by, or is the property of, the accessioning institute.
- ♦ Several museums and herbaria have published specimen data and images on their own website. Only one has a copyright statement and that is found not on each piece of data or on each image, but on the first page of the website. Copyright may well have been forfeited in these instances.
- ♦ There is limited access to some of the data on certain websites.
- ♦ All museums and gardens are considering charging, but charging whom, and for what and when, is not clear. Certainly value-added charges for information over and above basic data were seriously being considered if government funding reaches a level at which a service can only be provided with external funds. There are implications in the UK related to the Freedom of Information Act, but the precise consequences are currently unclear.
- ♦ While charging is being considered, no significant consideration has been applied to policing any abuses. This process can be costly.

RESULTS

Following research derived from personal meetings, group meetings, targeted literature and the Internet, five key issues became apparent:

- a) The contractual obligations of the *ENHSIN* partnership
- b) Specimen ownership
- c) Access to specimens
- d) Intellectual Property
 - ◆ related to specimens
 - ◆ related to images
 - ◆ related to data
- e) Policing the usage of data

A) THE CONTRACTUAL OBLIGATIONS OF THE *ENHSIN* PARTNERSHIP

The contract signed by *ENHSIN* partners clearly defines the obligations of the partners in relation to any output that *ENHSIN* has generated. Agreement between partners will permit these data to be passed to the next phase of electronic access development, as in the *BioCASE* programme. However, a Memorandum of Understanding will need to be drafted to ensure that this handover is understood and agreed by all participants.

The authors recommend that each partner licences *ENHSIN* to represent partnership data as a whole, and to give user access to these data on behalf of each partner. Each partner requires *ENHSIN* to acknowledge the data source, and disclaimers must be used to cover aspects such as data security, accuracy etc. Whatever *ENHSIN* creates (in terms of systems) it should copyright, and all partners should have a right to ownership and use.

B) SPECIMEN OWNERSHIP

Crucially, the question as to whether EU laws relating to specimen ownership are the same for all partner countries has not been established absolutely. Some of the legal aspects of specimen ownership are summarised in Figs. 1 and 2.

At the Royal Botanic Gardens, Kew, UK, the National Heritage Act of 1983 established specimen ownership, and the Trustees of the Royal Botanic Gardens, Kew, declared ownership of all Kew's specimens and their data. The Trustees of Kew are governed by statutory obligations under the terms of the National Heritage Act (Trustees of the Royal Botanic Gardens, Kew, 2002). In the Act, it is stated that the Board shall:

- ♦ Carry out investigation and research into the science of plants and related subjects and disseminate the results.
- ♦ Provide advice, instruction and education in relation to the aspects of botany in which Kew is involved.
- ♦ Provide other plant-related services including quarantine.
- ♦ Care for the collections.
- ♦ Keep the collections secure as national reference collections, allow access to them and supplement them as resources allow.

Figure 1. The legal aspects of specimens.

Process	Law/Convention	Issues
Specimen collection	CITES, CBD, MoU, Individual agreement	Legality of collections
Specimens mounted		
Specimens mounted and labelled	IPR Law Freedom of information	Ownership Material supply or transfer agreements
Specimens mounted, labelled, databased and imaged	Copyright Database rights	

90

The diagram aims to link what happens during the process of specimen collection with laws or conventions that apply at each or every stage of the collection and accessioning process. In this example, the stages in the collection and accessioning of an herbarium specimen are identified under the process heading. At the time of specimen collection the laws and conventions that apply include CITES agreements and any local agreements (MoUs) between the in-country representatives and the group or institute making the collection. As specimens are mounted and data is added to labels, the application of intellectual property law arises. IPR on specimens have, however, rarely if ever been enacted. If specimens are imaged electronically and label data put onto a database, then new laws may apply, e.g. database rights. The principle issues identified in this diagram – and whether collections are made and imported legally, who owns the specimens and the data and if material is required via destructive sampling for further analysis – is the sampling covered by a material supply agreement.

The 19 main collections for which Kew has responsibility can be divided into three main groups: living and genetic resource collections, preserved plant collections, and documentary and visual reference collections. The preserved and reference collections are the crucial samples of plant diversity necessary for research in plant diversity. They primarily serve the research needs of the scientific community, but also contain vast amounts of data relating to the distribution and ecology of plant species that are important for

conservation purposes. The documentary and visual reference collections add value to the other collections and also comprise important elements of Kew's intellectual property that need to be safeguarded, developed and used (Trustees of the Royal Botanic Gardens, Kew, 2002).

Recently there has been an offer of specimens to the UK on the basis of a long-term loan, but with the proviso that if the specimens are required at a later date that they will be repatriated. For institutes in the UK this situation is not acceptable since the commitment to repatriate cannot be guaranteed in the future simply on the grounds of resource alone. However, there are now many individual Memoranda of Understanding under which collecting agreements are made, and museums and herbaria need to be aware of these when agreeing to allow access to data in networks. It appears that this will be the responsibility of the individual institute or university.

The authors of this paper recommend that all contributors declare ownership of their specimens and their data, which may include data and database rights. The authors also recommend that all contributors declare ownership of their specimens and their data, which may include data and database rights. Declaring ownership improves stability of access to the material by fixing its location. However, declaration of ownership may be made on the basis of an inaccurate name or a name that is not in current use. The impact of this is not known.

91

C) ACCESS TO SPECIMENS

The Convention on Biological Diversity has changed, and continues to affect changes to the rules on access to both living and museum or herbarium specimens. The impact of the Convention on Biological Diversity (CBD) needs to be addressed, and the response of institutions like the Royal Botanic Gardens, Kew, to the CBD, and the development of common policy guidelines on access and benefit sharing (Garcia *et al.*, 2000), means conditions and restrictions may be placed on access. Some of the issues are illustrated in Fig. 2.

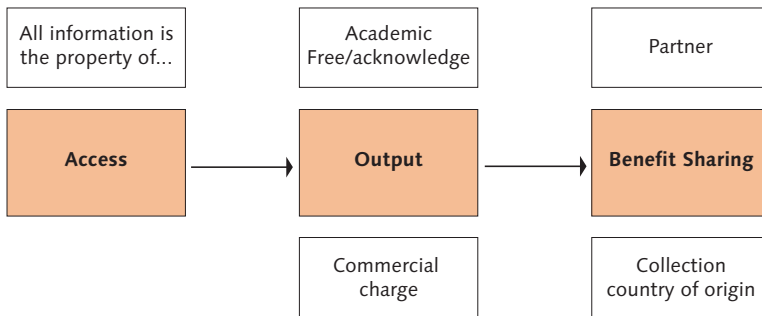
For example at the Kew herbarium, if destructive sampling of a specimen is desired, then before permission is given a material supply agreement (an MSA document written by lawyers for Kew) must be signed before the specimen is transferred from one institution to another. This MSA document specifies for what purpose the material can be used and establishes a 'no commercialisation agreement', unless it is authorised by all parties. The restrictions apply to the transfer of material, including pollen and DNA, even to bona fide scientists. Indeed, DNA extraction can only be undertaken by Kew staff on Kew specimens; aliquots are sent on request to bona fide scientists only after they have signed the MSA.

Kew is well aware that access to, and use of, the collections facilitates the creation of new knowledge about plant diversity and also supports the conservation and sustainable use of plant species (Trustees of the Royal Botanic Gardens, Kew, 2002).

The law that applies to collections of specific specimens is directly related to *CITES*. Put simply, some specimens collected illegally may be revealed in databases. This may relate to the issue of *CITES* registration or, as is the case in Australia, to being environment agency registered.

The authors recommend that each partner determines what data should be made available (e.g. data including name, collector, distribution, type specimen data) and what levels of access they will agree to (e.g. whether or not the data should be placed in the public domain).

Figure 2. Access and benefit sharing.



92

The diagram links access to specimens and the results of any work on the specimens (output) to whether there is any sharing of benefits from these outputs. Collection holders generally claim ownership of their specimens from whatever origin based on laws enacted in-country. They would also claim that all the information on the specimen is the property of the institute holding the collection. For research purposes (academic), the outputs are placed in the open access domain and are free at source. Benefits accrue to any and all collaborators. If the output has commercial value then a charge will be applied, which may be used to support the collection, or the benefits may be shared with the country of origin following guidelines established under the Convention on Biological Diversity.

D) INTELLECTUAL PROPERTY

"Intellectual property, very broadly, means the legal rights that result from intellectual activity in the industrial, scientific, literary and artistic fields. Countries have laws to protect intellectual property for two main reasons. One is to give statutory expression to the moral and economic rights of creators in their creations and the rights of the public in gaining access to those creations. The second is to promote, as a deliberate act of Government policy, creativity and the dissemination and application of its results and to encourage fair trading, which would contribute to economic and social development.

Generally speaking, intellectual property law aims at safeguarding creators and other producers of intellectual goods and services by granting them certain time-limited rights to control the use made of those productions. Those rights do not apply to the physical object in which the creation may be embodied, but instead to the intellectual creation as such. Intellectual property is traditionally divided into two branches, industrial property and copyright" (WIPO, 2001).

It is likely that if all partner countries have ratified the Universal Copyright Convention, the Berne Convention and the European Patent Convention, then the laws on Intellectual Property can be applied in all those countries without problems because the laws applied are the same.

There is considerable interest in what intellectual property applies to data and databases, and the driver for any interest is the generation of funds. In the cases of museums and herbaria, the lack of money for creating databases and maintaining the databases is recognised for most countries of the world, and especially at a time when universities and institutions face shrinking direct financial support from governments. This has also stimulated the need to increase funding from other sources and, since museums and herbaria are information rich, they have to look at how intellectual property might generate a stream of income to enable them to remain accessible to all users.

Legal and intellectual property issues are not confined to *ENHSIN*, for projects such as *BioCASE*, *ENBI*, and *EuroCat* are all concerned with legal and intellectual property issues. There is also considerable interest from the Organisation for Economic Co-operation and Development and the issue has been highlighted in the report of the Commission on Intellectual Property Rights (Commission on Intellectual Property Rights, 2002). However, it is already clear that understanding and concern for legal and ip issues lag far behind the drive and enthusiasm to create databases and interoperable networks of databases and to make the specimen data and images available on the Internet.

In essence, there is one question on ip to be addressed. How can the contributing members of *ENHSIN* retain the rights to their individual intellectual property while achieving the objective of the *ENHSIN* project, namely to create an Internet-based network to improve distributed access to specimen information?

Like all laws, those for intellectual property depend upon interpretation and precedent, and in the case of museum and herbarium specimens the law has not been tested, and interpretation and precedent are lacking. In fact, there is considerable debate about many aspects of IP, including the issue of who owns academic work. Issues like this are still unresolved.

The intellectual property in these cases is the specimens (including seeds, DNA, and chemicals) and specimen data. The specimen data include all text associated with biological specimens, information on specimen labels and material removed from specimens, line drawings and paintings, and images (which may include, for example, 35mm slides of living animals or plants).

Any attempt to answer the fundamental intellectual property question has to be broken down into stages. We need to know what laws might apply to museum and herbarium specimens, what rules are being applied in those institutions participating in the *ENHSIN* project, and what rules are being applied in other institutions and in other projects of a similar nature. The laws that apply come under the umbrella of intellectual property rights and include patent law, trademarks and the law of copyright (Weinand, Booy & Fry, 2000). To make the issue more complex, it is perfectly possible for different sorts

of intellectual property rights to co-exist in the same product or in the same specimen.

One of the most important features of intellectual property rights is that they may differ depending on the country in which you find yourself. One example given by Weinand, Booy & Fry, (2000) is that the 'common law' countries – Australia, Canada, UK and the USA – tend to treat copyright as primarily an economic right. These countries also rarely place legislative obstacles in the way of transfers or assignments of copyright. For example, most have provisions that allow transfer of copyright from employer to employee.

In contrast, the laws of continental Europe, for example France and Germany, tend to regard copyright more as a right protecting the personality of the author. These laws tend to resist easy transfer of author's rights. The Berne Convention and the Universal Copyright Convention have to some extent remedied such differences on copyright.

Another and very important limit on all intellectual property rights, again noted by Weinand, Booy & Fry, (2000), is that they exist entirely separate from the rights to the physical property in the work itself. A good example is that legal ownership of a book does not in itself give the owner the right to reproduce it. Buying a book does not confer ownership of the copyright. One interesting exception, applicable after 1 August 1989, applies to unpublished works that are left to a museum under a will, where the will makes no reference to copyright. In such cases, the will is judged to include the copyright, assuming that the testator actually owned the copyright before death.

Databases may have copyright protection and database protection. Copyright protection only applies if the selection or arrangement of the contents is the author's own intellectual creation. Database rights arise through the act of creating a database in which there has been a substantial investment in obtaining, verifying or presenting the contents of a database. It is separate to, and independent of, the copyrights in the constituent data. Database right in a published database lasts 15 years and is a European-wide initiative applicable to databases in the European Economic Area. In the UK, this right came into effect on 1 January 1998 (Whitehead, 2002).

As part of the European Commission's drive to harmonise copyright there are now publication rights. If a person spends time and money uncovering and communicating to the public an old work that has fallen out of copyright, then that person will be deemed to have a publication right.

E) POLICING THE USAGE OF THE DATA AVAILABLE

Undoubtedly the increased accessibility to these data will increase the need to police the accessibility and use of these data. Monitoring the use of data may be undertaken by developing countries, which may consider that the data are theirs. Some of the aspects of these issues are illustrated in Fig. 4.

In an attempt to police the use of specimens and data, many museums and herbaria have developed a variety of policies to cope with varied requests.

Figure 3. Copyright declaration.



COPYRIGHT DECLARATION

- I undertake, if required, to provide the Natural History Museum with copies of all photographs or electronic images that I take of Natural History Museum specimens and their labels
- I cede **COPYRIGHT**[®] and Publication Right in all such photographs or electronic images of specimens, labels and associated data belonging to the Natural History Museum to the Trustees of the said Museum
- I will obtain written permission from the Natural History Museum and pay the required fee before any such photograph or image is reproduced or copied in any way, including digital scanning

Signed **Date**

NAME IN BLOCK CAPITALS

INSTITUTION

ADDRESS

.....

.....

Telephone N° **E-Mail**

Fax **NHM Signatory**

BRIEF DESCRIPTION OF PHOTOGRAPHS/IMAGES

.....

.....

[FOR VISITORS OR BORROWERS TAKING PHOTOGRAPHS THEMSELVES]

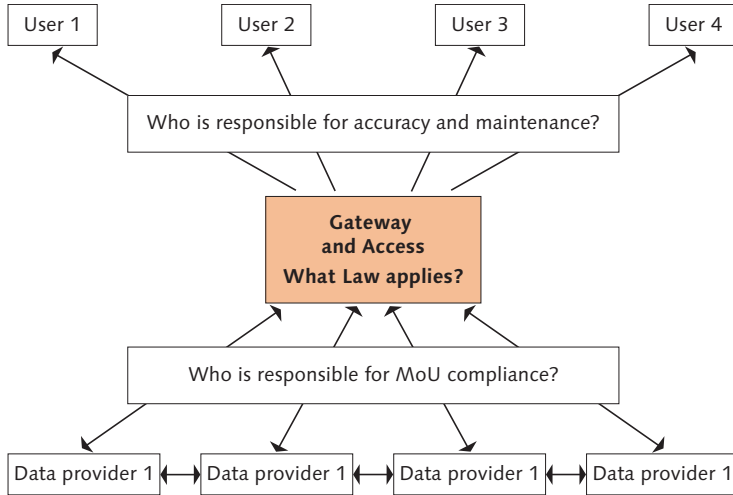
The Natural History Museum Cromwell Road London SW7 5BD Telephone (020) 7942 5000
www.nhm.ac.uk

Copyright declaration of the Entomology Department of the Natural History Museum, London, relating to the capture of photographic and electronic images, labels and associated data of specimens. In this instance, the signatory will cede all copyright and publication right in all such items to the Natural History Museum and will obtain permission from the Natural History Museum before any reproduction is carried out (reproduced by kind permission of the Trustees of the Natural History Museum).

Most have a policy for loan of specimens that covers aspects of who is eligible for a loan, where loans may be sent, what can and cannot be done

to specimens, and what special conditions apply to type specimens. In order to protect copyright, the Department of Entomology at the Natural History Museum (NHM) has instituted a copyright declaration which requires the collection user to cede copyright and publication right of all photographs or electronic images of specimens, labels and associated data to the NHM (Fig. 3). The intention of this document is not to restrict scholarly publication but rather to protect the department from commercial exploitation, since images of butterflies, for example, are often very saleable.

Figure 4. Users, suppliers, providers.



96

The diagram shows the position of a structure similar to *ENHSIN* as a Gateway and Access between the data provider and the users. In addition to supplying data to the Gateway, data providers are likely reciprocally to share data in collaborative programmes (double-ended arrows). The Gateway can also supply data to the providers in the form of upgraded software or information on the number, type or origin of enquiries to the specific database. The users are provided with data from the Gateway and most will provide little or no reciprocal data. Compliance with law will generally be the responsibility of the individual data providers unless the Gateway agrees to undertake this responsibility. The Gateway may be responsible for accuracy and maintenance although accuracy may be the subject of a disclaimer.

THE EXAMPLE OF CONABIO

A further contribution from the study of intellectual property issues in *ENHSIN* was to gather all the relevant information that existed concerning the policies, procedures and current practice in institutions other than *ENHSIN* partners or in national and international projects. With the time and resources available it has been possible only briefly to examine one significant international group. The National Commission for the Knowledge and Use of Biodiversity in Mexico, *CONABIO*, has inventories, databases and networking groups that bring together updated information on species distribution, population status, habitat and use of natural resources. The process, databases and systems of compiling and standardising the information are

known as the National Information System on Biodiversity (*SNIB*) and the Mexican Biodiversity Network (*REMIB*).

While *CONABIO* is a well-known and robust system, containing 5,400,000 specimens from a variety of sources, it still does not have all the biodiversity information from Mexico held in biological collections, especially on those specimens housed outside Mexico. *CONABIO* is keen to repatriate these data and among their prime targets, unsurprisingly, are the museums and herbaria of Europe.

REMIB is the mechanism by which Mexico wishes to reach the specimen information, and it does so through a national network of databases. *REMIB* is also the organisation that analyses and determines joint policies on IPR, data quality control and the means of distributing data. Interestingly, the *REMIB* website (www.conabio.gob.mx/remib_ingles/doctos/remib_ing.html) has both a disclaimer relating to the conditions for data use, and, in its chapter 4, section 2, it discusses the intellectual property of the information. It is clear that *REMIB* is an open-access facility with both members and users having equal access to the data in the databases affiliated with or developed by *REMIB*. This access, however, will be through an access code granted by *CONABIO*.

REMIB intends to make efforts to strengthen the free distribution of data, but ipr of databases developed by other organisations that become affiliated to *REMIB* will be respected. This is part of the database copyright law. *REMIB* expects sources of data to be acknowledged and that acknowledgement to be maintained in any subsequent use of the data. Both the owners of the data (*CONABIO* appears to at least here tacitly accept that others have ownership of Mexican biodiversity data) and *CONABIO* are entitled to block access to certain sensitive data e.g. the locality of rare and endangered species or data on which a researcher is actively working. So there is free and restricted access. Use of free access data may require permission from an individual researcher regarding use. *REMIB* does not accept responsibility for the validation of data-accuracy, reliability, or of the uses to which those data might be put. However, *REMIB* will ensure that access to these collections of data is consistent with national and international laws and any relevant requirements of prior informed consent. *REMIB* claims IPR on any software tool it develops, and the regulations related to *REMIB* are received every three years.

97

ANALYSIS AND RECOMMENDATIONS

The results of this investigation continue to cause consternation and sometimes irritation to those scientists who consider that free access to data for the progress and development of science must not be compromised, and that bureaucratic barriers to free access must be resisted at all costs. Any barriers would materially impact on those initiatives of the European Network of Biodiversity Information (*ENBI*) and the Global Biodiversity Information Facility (*GBIF*), which seek to make information available in quantity and electronically and, principally, for the purposes of promoting, encouraging, facilitating and

ensuring conservation of biodiversity and its sustainable use. There is much encouragement to take from the example of *CONABIO* in this regard.

The authors feel that, for scientists, the trend is already set for continued free access, but it is clear that if this is the norm then information will certainly be lost to its owners because of patents taken out by a third party. We, along with other experts, are unable to rule out the possibility that copyright is increasingly likely to influence scientific research as individuals and groups become more litigious and as the law on copyright and database right evolves. There will continue to be some restriction for sensitive information such as localities of rare and endangered species as is already applied by the New York Botanic Garden and the Missouri Botanical Garden. Commercial enquiries will be charged and the benefits will be shared as appropriate.

Specifically the authors make two recommendations:

- a) that each partner licenses *ENHSIN* to represent partnership data as a whole and to give the user access to these data on behalf of each partner. Each partner requires *ENHSIN* to acknowledge the data source and disclaimers must be used to cover aspects such as safety of data, accuracy etc. Whatever *ENHSIN* creates (in terms of systems) it should copyright and all partners should have a right to ownership and use.
- b) that all contributors of information declare ownership of their specimens and their data which may include data and database rights. Declaring ownership also improves stability of access to the material by fixing its location. In addition, particular institutions and universities with greater numbers of experts may have been able to verify more of their collections with greater accuracy.

98

References

- Commission on Intellectual Property Rights, 2002. www.iprcommission.org/graphic/home.htm
- CONABIO, 2002. www.conabio.gob.mx/
- Garcia, F.L., Williams, C, ten Kate, K., and Cheyne, P., 2000. *Principles on access to genetic resources and benefit-sharing, common policy guidelines to assist with their implementation and explanatory text*: 83pp. Royal Botanic Gardens, Kew.
- Graves, G.R., 2000. Costs and benefits of web access to museum data. *Trends in Ecology and Evolution* 15 (9), 374.
- Trustees of the Royal Botanic Gardens, Kew. 2002. *The Corporate Plan 2002/3–2006/7*. RBG, Kew. www.kew.org/aboutus/cp.html
- Weinand, P., Booy, A., and Fry, R., 2000. *A Guide to Copyright for Museums and Galleries*. Routledge, London and New York.
- Whitehead, R., 2002. Databases. *BSBI News*: 90, 28.
- Williams, C., Davis, K., and Cheyne, P., 2003. *The CBD for Botanists*. 94pp. Royal Botanic Gardens, Kew/Darwin Initiative.
- WIPO, 2001. *WIPO Intellectual Property handbook: Policy, Law and Use*. 460pp. WIPO Publication No. 489 (E).

APPENDIX: ENHSIN – INTELLECTUAL PROPERTY QUESTIONNAIRE

DEFINITION OF THE PROBLEMS TO BE SOLVED

How can the contributing members of *ENHSIN* retain the rights in their intellectual property (in this case specimen data – and possibly images and text associated with biological specimens) while achieving the objective of the *ENHSIN* project, which is to create Internet-based network access to their specimen information?

What type of policy document should *ENHSIN* develop and how should it deal with the provision and reuse of each institution's intellectual property in the project by both *ENHSIN* and external users (general public)?

THE FIRST STAGE OF KEW'S CONTRIBUTION

The first stage of Kew's contribution to creating a workable IP policy for *ENHSIN* is to gather all the relevant information that currently exists concerning the *ENHSIN* institutions' policies, procedures and/or current practice.

WHAT'S HAPPENING NOW IN ENHSIN REGARDING INTELLECTUAL PROPERTY?

99

Please supply your institution's policy or any information that sets out your position on ip in biological specimens and specimen databases.

- ♦ Does your institution have a formal policy on the treatment of its rights in the intellectual property of the specimens themselves?
- ♦ Does your institution have a formal policy on the treatment of its rights in the intellectual property of the database(s) containing information about these specimens?
- ♦ If not, does your institution intend to develop such a policy? If so, by when?
- ♦ If your institution does not intend to have such a policy, what is your position and current practice on the identification and protection of intellectual property rights in your specimen databases?
- ♦ At what point in the acquisition/accession process does your institution create a database record? Does your institution consider itself the owner of the specimen at accession, or at some other point in the acquisition process? Please describe.
- ♦ Does your institution favour the retention of its intellectual property with the provision of the specimen data to the *ENHSIN* project handled through a series of license agreements between the partners and the

ENHSIN board? Extensions of the network in the future could be based on this 'contract' which would lay out the terms and conditions underlying the use of each institution's specimen data in the *ENHSIN* project.

- ◆ Does your institution have any legal restrictions imposed on its specimen data resulting from legislative or intergovernmental agreement (such as *CBD*, *CITES*, etc)?
- ◆ Is your institution able to differentiate specimen data that is subject to these agreements and that which is unrestricted?
- ◆ Do you believe that each institution should be individually responsible for the provision of 'legal' specimen data, or that *ENHSIN* should take this responsibility, with each institution jointly responsible?

CURRENT ACCESS

- ◆ Does your institution currently publish its specimen database in an electronic format/medium where the public can gain access?
- ◆ How is this electronic access provided? (e.g. via Internet/website, via internal network to visitors, etc).
- ◆ If you do, what copyright statements do you publish and where do they exist (e.g. copyright statements at top level of website, attached to database query screen, attached to all queries/outputs)?
- ◆ Does your current system of access limit the number of downloads or records to be downloaded in any one search?
- ◆ Does your institution limit access to its specimen databases? If so how is this done? Please describe who has free/limited/no access (by type of user).
- ◆ Does your technology apply any form of software-generated watermarks, copyright statements? Please supply as much information as you can on how this is achieved.
- ◆ Please supply a copy of your institution's copyright statements in respect of specimen databases.
- ◆ Please supply a copy of your institution's access permission/reuse of information terms and conditions.

100

INCOME GENERATION

- ◆ Does your institution intend to charge users for accessing and downloading specimen data? Is this an option that your institution wishes to keep open, or has your institution already made it a policy to gift the specimen data free of charge? Is there any likelihood of your institution's current policy changing?

POLICING AND AUDITING

- ♦ Does your institution check who is using your specimen database information? This might be done through forced registration where the applicant is vetted, or may be free registration followed by occasional checking, or may just be free access. Please describe.
- ♦ Does your institution pursue individuals/institutions that have abused their access and reused your information without permission? If so, how have you found out that an abuse has taken place? How has the abuser been pursued, and how successful have you been? What capacity does your institution have to pursue these types of claims?
- ♦ Does your institution feel that the ability to control and police the re-usage of specimen data is a requirement for *ENHSIN*?
- ♦ Does your institution feel that *ENHSIN* needs its own legal capability in this respect?
- ♦ What resources might your institution be able to put forward to deal with this ongoing issue?

Does your institution intend to associate other forms of information with the specimen information and make this available through *ENHSIN*? (e.g. images, text, GIS mapping, etc).

101

Does your institution expect to be able to use the *ENHSIN* partners' specimen data to create value added products? Would you publish these in your own name, or under the *ENHSIN* marque?

Does your institution require the use of its own specimen data in *ENHSIN* to be measured specifically?