

The Biology Curator

The Publication of the Biology Curator's Group

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Diary Dates

BCG

22 Sept. 1998	MA conference
Late Oct. / early Nov. 1998	Study trip to Dublin and Belfast.
Late Jan. 1999	Geology for Biologists, somewhere in Yorks/Humbs region.
April 1999	AGM and meeting, with Guild of Taxidermists, Powell Cotton Museum.
Oct./Nov. 1999	Return to Leiden
Oct./Nov. 2000	Study trip to St. Petersburg.
Oct./Nov. 2001	Don't tell anyone, but possible trip to America.

GCG

24 Sept. 1998	Joint meeting with History of Geology Group, London.
29 Oct. - 2 Nov. 1998	Study trip to Netherlands.
2/3 Dec. 1998	AGM and meeting, Nottingham.
20 May 1999	25th anniversary meeting, London.
Late 1999	Study trip to Paris.

BCG Chairman's Report

BCG has had another busy and successful year. There have been two major issues occupying the Committee's thoughts, both of which follow on from last year. Firstly the work of the Collections Monitoring Cell, led by Mike Palmer. In October 1997 BCG launched its Collections at Risk Action Packs (as described in the March issue of TBC) at the Natural History Museum, attended by representatives of MGC and some AMCs. Their production had been flagged up in the August issue of the Museums Journal. These packs are largely the result of much hard work by

Mike who has also dealt with many specific cases of collections at risk as well. It also seems, sadly, that much of the Chair's work will continue to be writing letters on BCG's behalf about these cases. Mike has done sterling work in this area, for which I am very grateful and I know he would welcome help!

The other area which has occupied our time has been biological recording and the proposed National Biodiversity Network. I will leave Steve Garland to tell you the details. BCG organised an emergency meeting on the subject in July at the NHM and Dave Mellor was funded by a consortium of museums, plus BCG, to help prepare documentation for the NBN bid. We still await the outcome of the bid.

Over the year we have commented on a number of policy documents: the National Strategy for Systematic research produced by the Systematics Forum; MTI's National Training Strategy and several local policy statements associated with our monitoring of collections at risk. We also worked with the MGC and DoE to implement the new Taxidermy regulation EC 338/97; the result of this is that registered museums are automatically eligible for an exemption certificate.

I have attended two meetings of the MGC's Collections Research Working Party on BCG's behalf. This working party was set up in January 1998 to look at a scheme "to identify and record the significance of collections in every discipline throughout the UK". It is intended to be the 'recognition' scheme mentioned in Treasures in Trust, although probably changed out of all 'recognition'! The working party is looking at how an encyclopaedic database can be produced, building on existing work. The MGC has commissioned a survey of surveys which, not surprisingly,

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Deadline: All items for next publication to reach Editors by 8th September 1998.

has shown how far ahead natural science collections are compared to other areas. Although politically the MGC may need to rank collections, they do not see this as a priority for the new scheme. Currently the idea is to have a database linked to the MGC website by the year 2000. The natural scientists on the working party are Phil Doughty, Dave Hill and myself. If you have any thoughts on this issue then please do let me know as the MGC are anxious to have as much consultation with the profession as possible.

There are many people who have worked very hard for BCG this year. I would like to thank Pat and Kath at Bolton for all their work on The Biology Curator, and Steve Garland's work for a special issue on microscope slides funded (thank you) by the NHM. Any suggestions for other 'special issues' are welcomed (preferably with some means of funding them!). We have had a number of successful meetings this year and I would like to thank Kathie Way, Steve Hewitt, David Carter and Steve Thompson for running them. Finally I would like to thank all the Committee for their hard work especially Steve Thompson and Kathie Way for keeping everything running and Helen Burchmore for ably taking the Committee minutes. We say good-bye to two Committee members, Maggie Reilly and (shock, horror!) Steve Garland. After 18 years, during which time he has served as Editor, Chairman and, latterly, doing lots of hard work leading the Biological Recording cell Steve is leaving. It just won't be the same without you!

Jane Pickering (Chairman)

Minutes of the 1998 AGM, held at the Royal Museum of Scotland, Edinburgh on 30.4.98

Apologies for absence: Simon Hayhow, Mike Taylor, Pam Copson.

Minutes of the last meeting. Two corrections to spelling of names, Hayhow not Heyhow, and Allan not Allen. The minutes were otherwise accepted as an accurate record of the meeting.

Chair's report:

Secretary's report:

Treasurer's report:

The accounts were proposed by Rob Huxley and seconded by Paul Brown.

Elections:

Two members stood down, Steve Garland and Maggie Reilly. Special mention and particular thanks were given to Steve Garland for a remarkable eighteen years service on committee, and he was wished the best of luck in standing for MA Council. Don't forget to vote for him.

Two new members were elected:

Howard Mendel (a genuine volunteer! Hip hip hooray), proposed Jane Pickering, seconded Steve Thompson.

Shona Allen, proposed Nick Goff, seconded Steve Thompson. Due to the difficulties for Scottish members

travelling to meetings, the duties of this post will in fact be shared by Shona, Mark Simmons and Steve Moran. Our thanks to them for their cooperation.

The next AGM will be held at the Powell Cotton Museum as part of the joint taxidermy meeting in April 1999. Date yet to be decided.

Secretary's Report

Committee has held four meetings since the last AGM, one more than normal due to the extra work needed for such things as the Collections at Risk Action Packs. Attendance has been good, as ever, with at least eight of the thirteen members present on all occasions.

It is fair to say that BCG continues to go from strength to strength. Our major achievement this year has perhaps been to produce the aforementioned action packs, which were launched at the NHM in October last year. Many, many thanks to Mike Palmer for the enormous amount of work he has put into this project. In the meantime, we continue to liaise with MGC and the Systematics Forum over issues of mutual concern, such as collections at risk and the recognition scheme. That our star is in the ascendant should be apparent from the fact that we have made it into the Museums Journal several times in the last year, including a major contribution to August's cover article, and that we were approached by the Sheffield Museums Trust Advisory Council to nominate a member to the council. Our nomination was Derek Lott, who attended the first meeting recently. It seems people do know we exist.

We continue to organise popular meetings, last years Vienna trip being filled and enjoyed to the full (so I am told). More than 40 people have also dragged themselves northwards into the arctic wastes once already this year, for the excellent entomology meeting in Cardiff. Many thanks to Steve Hewitt and David Carter for their work in putting that together. It makes it all the more impressive to have 60 people at this meeting in Edinburgh, and thanks to all who made it. Future meetings planned are to include another MA conference session, study trip to Dublin and Belfast at the end of this year, a meeting on geology for biologists at the beginning of 1999, a joint meeting with the Guild of Taxidermists in April 1999 and a return trip to Leiden at the end of next year. We are also intending to run a trip to St. Petersburg in 2000 (assuming the world doesn't end on January 1st).

We are undertaking an ongoing membership drive, to attract particularly members from groups outside of the curatorial community, believing that the well being of our collections is of interest and importance to a much wider group of people than just ourselves. As ever we welcome thoughts from the membership on this and any other issues.

Steve the secretary.

Treasurer's Report

This year has seen BCG's bank balance in profit again — but only just. The Vienna study trip went against the trend of previous years by showing a small loss despite subsidy from MGC and BCG. To offset this, the 1997 AGM showed a profit, albeit not as great as that suggested by the

accompanying figures since we have not yet received the catering invoice for the meeting! The Collections at Risk initiative did cost the group a considerable amount and will continue to be supported from BCG funds since this is precisely the kind of activity we should be promoting. The interest we receive on our Midland Bank Small Treasurers Account continues to provide a respectable boost to our balance (as well as also being the only example in history of your treasurer being placed in juxtaposition to the word "small").

With regard to membership I find myself repeating my remarks of last year; the membership figure remains the same, there have been a number of resignations — but these have been replaced by new subscriptions, with a small rise in institutional memberships. We really have to try to recruit new members, our subscription is extremely low and I would like to see it continue at the same level for as long as possible; however, the increased costs associated with the new format Biology Curator may threaten this aim in the long term unless we can boost membership. Additionally, those people who always wait until halfway through the year before reluctantly parting with their £8 should bear in mind that as well as the loss of interest revenue this causes, time spent chasing non-payments is time which could definitely be more usefully spent.

Details of Income and Expenditure for the period 1.4.1997-31.3.1998

Income

Subscriptions	£3,310.09
Study Trip to Vienna	10,639.50
1997 AGM Cardiff	1,274.00
Carlisle meeting	310.00
From NHM for TBC 10 supplement	1,800.00
Interest on bank account	196.38
Sales of publications/advertising	140.00

Total income **£17,669.97**

Expenditure

Study trip to Vienna	310,741.48
1997 AGM Cardiff	429.45
1998 AGM Edinburgh (deposits)	163.61
Carlisle meeting	227.15
Collections at Risk packs/launch	1,040.89
Refund of subscription overpayments	8.00
Bank charges	12.00
Book for use by M. Palmer	15.00
BCG contribution to National Biodiversity Network planning group	40.00
Biology Curator 8	980.25
Biology Curator 9	906.23
Biology Curator 10 + supplement	2,958.81
	(1,1158.81)

Total expenditure **£17,522.87**

Income over Expenditure **£147.10**

Total at bank 31.3.1997 **£9,191.67**

Total at bank 1.4.1998 **£9,338.77**

Membership

Personal members	220
Institutional members (UK)	66
Overseas members	45
Exchanges	9
Total membership	340
Total annual income from subscriptions	£3,425.00

Kathie Way, BCG Treasurer

Members who have not paid subscriptions for 1997 or 1998 to be deleted from membership list (representing total of £262)

Vicki Bates, Queensland
James Brock, Horniman Museum
Buxton Museum
Bruce Campbell, Newport
Chris Collins, Cambridge
Margaret Crittenden, Nottingham
Gray Art Gallery & Museum, Hartlepool
Nick Moyes, Derby
Library, Newark Museum, New Jersey
John Nudds, Manchester
O. A. Williams, Ilkeston

So Many Things, So Little Time To Document Them

First in a series of articles in which Nick Goff, Documentation Cell leader, explains key aspects of collections documentation, including the requirements for MGC Registration, current standards from the MDA and the particular features of biological collections.

Most people in museums will have heard of MGC's Registration Scheme. Phase 2 is now well underway, with its enhanced requirements for collections documentation. These at first sight may seem off-putting, and a little arcane. Luckily, the Registration Guidelines point the way to a valuable source of help - SPECTRUM: The UK Museum Documentation Standard.

Let me explain a little about SPECTRUM before we go any further. It is not a piece of software or a documentation system: it is a set of standards for collections documentation that is applicable to all systems. It is published by the Museum Documentation Association (MDA), and is derived from the experience and best practices of the museum profession. It deals with all the procedures that happen to objects in museums and how they should be recorded. Each museum should use the minimum standards for these procedures to develop the documentation practices that meet its needs and aims. SPECTRUM also defines what information should be recorded in each procedure, and highlights where museums should develop policies to underpin their procedures.

Anyone who has seen SPECTRUM will know that it is thorough, comprehensive, and not an easy bedtime read. Don't let that discourage you. To meet the Registration requirements, there are only eight procedures to worry about. When you have more time, or need them for a specific purpose, you can think about the other twelve. The Registration Guidelines list the different types of record museums should keep and relate these to the eight "primary" procedures in SPECTRUM. So you know where to start.

There are two more sources of help available once you do start. Standards in action: A guide to using SPECTRUM, recently published by the MDA, is a guide to implementing SPECTRUM. It makes clear the link between SPECTRUM's

standards and Registration, as well as answering some real-life museum questions, and includes self-diagnostic tools for assessing your museum's documentation. To back that up the MDA has unveiled its team of SPECTRUM Advisers, museum professionals with extensive experience in collections documentation, who are available at the end of a phone to answer queries about SPECTRUM. Your correspondent is one of the SPECTRUM Advisers. Although the intention is to have regionally-based Advisers, it is worth noting that I am the only Adviser with a background in natural sciences. To contact the SPECTRUM Advisers, call 01223 366097.

In subsequent editions of *The Biology Curator* I will explain the "primary" procedures, how they can be implemented, how they can help your museum meet its aims and objectives, and some of the particular requirements and peculiarities of biological collections.

Next time Do It While You Can: Object Entry

Now Hear This!

EC regulation No. 338/97 prohibits the acquisition or use of a range of protected species, listed in that regulation, for activities associated with commercial gain. However, article 30 of regulation 939/97 allows museums to apply for a one off exemption certificate, which will be granted automatically to any MGC registered institution.

It would appear from the response at the recent Edinburgh meeting that many curators feel that this does not apply to them, as they do not operate for commercial gain. BEWARE! If you have entrance charges, special exhibition charges, sell publications or run any sort of shop or cafe, receive grants or sponsorship, this may well be considered as commercial gain. This means you!

Application is very straightforward, but make sure you have your registration number to hand. It also costs nothing, so every museum with biological material should apply as a matter of course, just to be on the safe side. To date there have been no more than a handful of applications.

For application packs (sounds complicated but it is about five questions on a single side of A4) contact Roy Queralt, Global Wildlife Division, Room 8/22, Tollgate House, Houlton Street, Bristol, BS2 9DJ. Tel. 0117 987 8010 / 8202 / 8749 / 6165. Fax. 0117 987 8206.

E.mail global.wildlife@gtnet.gov.uk

Website <http://www.open.gov.uk/gwd/gwdhome.htm>

Study Trip 2000

In 2000, we are intending to go to St. Petersburg. This will require a considerable amount of work and it is not yet clear who will be involved, but there is the possibility of running it as a joint trip between ourselves and at least GCG. Costs will probably be similar to those for trips that we have already run. I would be grateful for feedback from people as to whether they would like to attend, so that I can get an idea of what to cater for. Don't be shy. Thanks. Steve T.

Biological Recording Cell Report

Steve Garland, Bolton Museum

National Biodiversity Network

The NBN project is still awaiting a decision by the Heritage Lottery Fund. How the project develops in future will depend on this. Discussions are ongoing with the Natural History Museum concerning the future managing of national taxonomic checklists. The development of Recorder's replacement (now referred to as Collect & Collate Software) is on track. They are about to decide on a software developer, so work will start soon. I believe that they hope to be trialing a stand-alone version of the package by early next summer. There is little decided about the package yet, except that it will run on Windows95 (or 98 by then!). Various databases are being considered, including MSAccess.

The only other thing to report is that the number of Museum-based LRCs is steadily dropping. Sheffield Museum has been surgically separated from the LRC as a result of the creation of the Sheffield Museums and Galleries Trust. The LRC remains within the City Council. It would be interesting to know how many are left; other non-museum LRCs that were once in museums include Rotherham and Bristol and LRCs under threat include Derby, West Yorkshire and some in Scotland.

These changes bring into question whether museums will be a major player in this field in future. However, the BCG's involvement with the NBN is still important because of issues relating to archive management, voucher specimens, environmental sampling and identification/ verification of records. We must ensure that biological recording does not become divorced from collections and that manuscript records are not lost. Many non-museum LRCs do not see either of these issues as important, merely as an extra cost and an inconvenience. This attitude is a worrying extension

of the decline in interest in taxonomy and the shortage of ecologists with identification skills. The environmental press has been discussing at length the thousands of environmental biology and conservation graduates coming onto the job market with minimal identification skills. The quality of management plans and environmental impact assessments appearing as a result of this is worrying.

This is my last report as BCG Biological Recording Cell Representative. My replacement is Howard Mendel (see the Committee list in this issue). I am still involved though, and will continue as an active Cell member; so you can still use me as a contact.

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Editor's Note

The Newsletter comes out at the end of March, July and November so to make sure your events and meetings appear in the Diary Dates, please make sure that you send the details to us in plenty of time to reach the right edition. See the back page for copy date deadlines.

A number of changes have occurred to the committee. Maggie Reilly and Steve Garland have stood down and Shona Allen and Howard Mendel have been elected. In addition, and due to the problems of travelling from Scotland, Shona's post will be shared between herself, Mark Simmons and Steve Moran, hence their inclusion on the above list. Mike Palmer has moved to London and is unable to continue to lead the Collections at Risk cell. This situation will be discussed at the next committee meeting. Jane Pickering is moving to a new job in the USA, and the chairmanship will be taken over by David Carter, at least until the next AGM. Her new address will be:

MIT Museum
265 Massachusetts Avenue
Cambridge
Massachusetts
02139 (if you leave this off, it will not arrive) USA.
Apart from that, business as usual.

Geology for biologists meeting, January 1999.

I am intending to organise this meeting to be held, probably, at the North Lincolnshire Museum. I would like to know what people would hope to get out of this meeting, both in terms of talks and of demonstrations. I will then try (no guarantees) to include them. If you have any thoughts, please put them onto paper, and post or fax them to me. You will find my address, etc. elsewhere in this journal, (probably several times!).
Thanks.

Steve Thompson.

Insect Identification Literature and Checklists

**Text of a talk from the meeting : Entomological
Collections : Entomology for Non-Entomologists. Tullie
House, Carlisle, 24 February 1998**

There are three main problems associated with identifying insects : what is its correct name, how do I identify it, and how do I find the relevant literature. The Natural History Museum is addressing all these issues in the following way.

Checklists and the NBN

Many of you will know of the National Biodiversity Network, a project to create a partnership of local and national custodians of information on British wildlife, providing access to all within a framework of standards. The NBN consortium consists of the Joint Nature Conservation Committee, the National Federation for Biological Recording (also representing ALGE, BCG and BRISC), the Natural Environment Research Council, The Natural History Museum, The Royal Society for the Protection of Birds, and The Wildlife Trusts. The Natural History Museum's main

role is to contribute the species dictionary: a definitive list of all the UK fauna and flora, based on existing lists, by compiling new ones where needed, and incorporating and updating those from JNCC's Recorder programme. This will not all be done by NHM staff, but we will maintain a list of key contact people and organisations, including the current experts on every group. The NBN consortium is preparing a bid to the Heritage Lottery Fund, but even without external funding the NBN project will go ahead, and the NHM is committed to the compilation and future updating of the checklists, the speed and scope being dependent on available resources. The insect checklists will be developed in collaboration with the Royal Entomological Society, who are about to publish a new Diptera checklist, with a Lepidoptera list at an advanced stage of preparation. It is expected that the new lists will eventually be available as hard copy as well as on the WWW.

Identification guides

The main series of detailed identification guides to British insects are the Royal Entomological Society's Handbooks for the Identification of British Insects. Although this series began over 50 years ago, it still covers less than half the British insect fauna, and most parts are out of print. The RES has recently revitalised the series, appointing a new editor and setting up a Handbooks editorial committee. But one of the difficulties with such a series is finding suitable, and willing, authors. Often the best person to write a handbook is too busy doing other things. The way forward may be to find someone knowledgeable on the group, and pair them with an experienced taxonomist who is used to writing keys, and perhaps also with an illustrator. The important point is to recognise why handbooks are not being written, and try to bring people together to make something happen. The Natural History Museum is willing to help in this process, and again we are working closely with the RES. There are also some new handbooks being written directly by NHM staff so we have a direct input to solving the problem, not just the indirect role of aiding or facilitating others.

Literature guide

One of the biggest difficulties is finding one's way around the appropriate taxonomic literature. It is fine if there is a recent handbook, but in many cases there is only a mass of separate papers. Experts tend to forget how difficult it can be to break into the literature of an unfamiliar group, and how does a newcomer get from the Collins Field Guide to the next stage in the literature ? Two guides to taxonomic literature were published in the 1980s, but neither is very detailed on particular groups and both are becoming very out-of-date. But more important, in most cases neither tells you about the value of each reference. The Entomology Department at the NHM has just finished a book on identification literature for British insects and arachnids. Each order of insects has a separate chapter, beginning with an outline of its biology, plus the higher classification down to family level. The taxonomic references, of which there are over 2,000 in the book, have annotations explaining what each one covers and why it is important. A vital chapter, written by the NHM's Entomology librarian, explains how to

understand references, how to get hold of obscure journals, how to use specialist libraries, and so on. Again, those of us working in large museums or universities tend to forget how difficult it can be to find this sort of information. The book, called *Identifying British Insects and Arachnids: an annotated bibliography of key works*, will be published by Cambridge University Press later this year.

So the Natural History Museum's current contribution to insect identification are the compilation and maintenance of checklists, helping to create new keys and handbooks, and writing a guide to the taxonomic literature. These seem to us the three tools most needed at present, and the NHM, by virtue of its size and breadth of expertise, is uniquely placed to provide such taxonomic services. But having said that, we cannot do everything, and the future for insect taxonomy undoubtedly lies in collaboration with experts of all kinds, whether the professional society or the lone amateur. Britain has the largest concentration of natural history enthusiasts in the world, and we must share our knowledge and pool our resources to capitalise on this unique strength.

Peter Barnard

The Natural History Museum, London

Species recording schemes, museum collections and the role of local museums

*Paul T Harding, Institute of Terrestrial Ecology,
Monks Wood, Abbots Ripton,
Huntingdon PE17 2LS*

This paper is based on a talk given at the BCG meeting Local Collections, Local Information, held at Nottingham Natural History Museum on 30 January 1997. It presents a personal opinion and does not necessarily reflect the opinions of the Institute of Terrestrial Ecology.

Introduction

Local museums, and the collections that they manage, have a unique role in species recording in the UK, apart from acting as local biological or environmental records centres. Local museums are a resource for curating collections and archives resulting from national and local species recording schemes and in promoting recording in conjunction with these voluntary groups. Greater partnership between museums and national and local species recording schemes could benefit both museums and schemes.

National species recording schemes

There are over 60 national species recording schemes, most of which operate in association with the Biological Records Centre at Monks Wood (Harding & Sheail 1992). Each scheme has the basic objective of recording the distribution of species in a taxonomic group (e.g. flowering plants, millipedes, fleas) in Britain and Ireland. About half the schemes are organised by, or under the aegis of, a national society or specialist group (e.g. Botanical Society of the British Isles (BSBI), British Myriapod Group (BMG))

with the remainder being organised by individual recognised specialists. All schemes are operated on a voluntary basis with records being contributed by experienced field naturalists. Many national recording schemes are underpinned by some form of local structure, for example regional or county recorders or through inter-relationship of volunteers with local natural history societies, wildlife trusts and local records centres. However, this inter-relationship is usually ad hoc and is acknowledged to be incomplete and inefficient through lack of co-ordination (Burnett, Copp & Harding 1995).

Local recording

There must be hundreds of locally based recording initiatives, but no list of them or their co-ordinators exists. Meenan (1983) and Milner (1994) list many local natural history societies, but these lists are incomplete and rapidly become out of date. Many local museums, local records centres and wildlife trusts have contacts with local naturalists and their local groups and societies but co-ordination of effort and use of resources is generally poorly organised, simply because there is no consistent method for co-ordination.

Expertise in taxonomy and field craft

The number of biologists actually employed to collect and identify biological material to species is steadily declining in the UK (and in other western European countries). Therefore, the organisers and voluntary field recorders who contribute to schemes are, increasingly, the single most important resource of taxonomic expertise in the UK.

Regrettably, few staff in local museums have opportunities to exercise their field craft skills as part of their official duties and, increasingly, their taxonomic skills are under-used in their day-to-day duties. Those who have any energy left, after wrestling with increasing amounts of administration and bureaucracy in their working hours, may still undertake some active field biology and identification in their spare time; inevitably there is some 'blurring' of work and hobby.

After several decades of surveys being undertaken, for a wide range of organisations, by inexpensive but inadequately trained and inexperienced teams of field surveyors, there is increasing awareness of the need for reliable identifications and use of appropriate techniques in field surveys of all types. Several training and validation programmes have been set-up in recent years (e.g. under the leadership of the Institute of Ecology and Environmental Management, the Natural History Museum's IdQ programme and training programmes based around the National Vegetation Classification), but costs and commitment of time to this form of training are well beyond the budget of most volunteer field naturalists.

Species recording schemes and collections policies

Ideally, every record should be based on a reliable identification capable of verification in perpetuity, but this is impractical. For example, the Biological Records Centre (BRC) database contains over 6 million individual records of some 10 000 taxa. A recent survey (S G Ball pers. comm.)

showed that some 5 million records are held by some 150 Recorder users. If a supporting specimen was held, somewhere, for each of these records, it would be equivalent to about 20% of the entire biological and geological collections at The Natural History Museum. There is no end to the making of records, but, at most museums, facilities for housing collections are bursting at the seams and there are too few curatorial staff! Consequently, where voucher specimens are held in association with collated biological records, they are as likely to be in personal collections, or in unrecognised collections (e.g. in schools or field centres), as they are in an accredited museum or herbarium.

Few national schemes have recognised policies on the retention of voucher specimens to support accepted records. The BSBI advises its recorders to deposit voucher specimens in recognised herbaria and has recently published guidance for its members of the preparation of specimens and the use of herbaria (Chater 1996). The British Bryological Society (BBS) requires each new vice-county record to be supported with a specimen, which is then deposited in the BBS herbarium maintained at the National Museum of Wales.

By way of example of the majority of schemes, and in contrast to BSBI and BBS, BMG has no stated policy on collections. Personal, voucher specimen collections are maintained by most of the 30 or so active recorders, and individual specimens and a few whole collections have been donated to museums, but not necessarily in the UK. Museums in Paris, Copenhagen and Italy have benefited because appropriate specialists are employed at them, but there has not been a specialist employed to work on myriapods at any UK museum for decades.

Species recording schemes and museum collections

Few schemes have made systematic efforts to collate records from existing collections. There are several reasons for this:

- 1 Most contributors to schemes are motivated by the attractions of field work and finding and identifying their own specimens;
- 2 There is a widely held perception that the data with most specimens in collections are too imprecise for species mapping, let alone species or site protection;
- 3 The reliability of identifications in collections is often suspect and therefore much material will need complete re-identification;
- 4 It is difficult to find out what collections and specimens are kept at individual museums, although summary information is now available for many museums as a result of the work FENSCORE (see below).

The extent to which any of these reasons applies will vary according to the taxonomic group and the individuals involved with the scheme.

- 1 With almost every scheme there is usually somebody who would have an aptitude to work on collections, but all too often they are prevented from doing so because they are unable to spend long periods away from home or work. A possible solution to this might be easier access to collections through loans, but the administrative and logistical

difficulties this might bring to museums should not be underestimated.

- 2 The amount of detail contained in data labels in collections varies greatly, but, as a general rule, the older the record, the less detail there is likely to be. Nonetheless, to be certain, from a museum specimen, that a species was formerly known from an area (and that the original identification was correct) is a great help in trying to re-find elusive species. There are many well-documented examples of successes in this type of detective work.

- 3 The standard of identification in collections (of all types) varies greatly. Two collections of woodlice, on which I have worked myself (Harding & Sutton 1985), demonstrate the extremes: that of W E Collinge, at York Museum, proved to almost totally unreliably identified; whereas that of D R Pack Beresford, at the National Museum of Ireland, was almost without fault (and included good site data, despite dating from the period 1910-1940). Changes in nomenclature are a fact of life, for which access to well synonymised checklists is essential in trying to interpret early records.

- 4 The activities of the Collection Research Units (CRU), co-ordinated by the Federation for Natural Science Collections Research (FENSCORE) have resulted in a series of regional indexes to collections and the data for a comprehensive national database of metadata on UK collections. Unfortunately, the published indexes are poorly known outside the museum community, and the FENSCORE database is incomplete and inaccessible, due to inadequate funding. Detailed catalogues of individual collections are scarce and obscure so that only the most tenacious recorder will know of their existence.

What have recording schemes got to offer museums?

The organisers of, and contributors to, recording schemes are potentially important sources of taxonomic expertise and collection material, as was noted earlier. They can contribute to the work of museums in several ways, for example by:

- 1 Validating and cataloguing existing collections (so that, as by-product, they acquire reliable data from the collections).
- 2 Contributing well documented and curated voucher specimens to a museum, in accordance with the museum's collections policy.
- 3 Providing a resource for the identification of material acquired by museums and in providing expertise in identification and field craft for museum out-reach programmes.

It is probably not good use of volunteer specialists' time to assist with the curation of existing museum collections or data-entry, unless as part of a validation and cataloguing exercise. Many aspects of curation and data-entry are semi-skilled activities (mechanistic processes) requiring little taxonomic knowledge if properly and regularly supervised.

What could museums offer recording schemes?

Many museums are actively involved with their local community of naturalists, especially where the museum operates or is associated with a local records centre. However, there are some opportunities for closer co-

operation which may not yet have been considered by all museums.

From the somewhat selfish perspective of the volunteer specialist involved with a recording scheme, the following would be very helpful at a museum:

- 1 Access to the CRU index and any detailed catalogues;
- 2 Being told what it is and is not possible to do at the museum (especially in relation to the resource limitations of the museum) - clearly the museum curator will need to be careful to avoid time-wasters;
- 3 Being told whether there is a policy of charging (admissions, bench fees, etc) for regular visitors working on the collections, where the museum will derive some benefits from the work;
- 3 Access to relevant collections for use as reference material, to undertake searches for data from labels and to re-determine specimens as necessary;
- 4 Space on a table or bench within reach of the collection being used and, particularly for work on collections of invertebrates, use of a working microscope (and illumination). Most specialists would expect to bring their own instruments and keys, and some might bring their own microscopes;
- 5 Advice on how to document, manage and curate a personal collection (I have been amazed how poorly documented or curated some personal collections can be!);

- 6 Help with effecting the donation and permanent curation of voucher specimens, whole collections or documentary archives. This need not necessarily be at the museum being consulted as there may be a more appropriate museum, with other collections of the taxa or a member of staff with a particular interest in the taxa.

Closer partnership between recording schemes and museum

Many of the above points would lead to or will require closer partnership between the individuals associated with recording schemes and the staff at museums. There is one particular area where, by combining forces, the interest of both parties could benefit greatly - the recruitment and training of new field naturalists. The involvement of local wildlife trusts and Watch groups should also be considered.

Although aspects of the biological sciences form part of the National Curriculum, old-fashioned natural history and basic biology are generally neglected in schools. Despite this, there is greater interest in environmental matters and 'wildlife' than ever before. Those interests need to be harnessed and focused to recruit new cohorts of active field naturalists. Museums, through their displays, special events, educational programmes and other out-reach activities are already laying the ground for the recruitment of field naturalists. But we have to compete with the apparent accessibility of wildlife misleadingly portrayed by television. The concept of 'mini-beasts' has proved remarkably useful in giving children hands-on experience of living organisms and their habitats.

It is unreasonable to expect, or even to seek, thousands of new recruits to collecting and recording, nor could schemes, museums or records centres cope with them. Whilst continuing to provide for the general public who require fairly superficial levels of information and understanding, it is important also to target the small number of enthusiasts who show potential to develop their skills in taxonomy and recording. By involving existing local specialists in acting as 'mentors' for these aspiring specialists, they will be able to transfer knowledge and experience between generations. This may not be easy - some of our most effective recorders may be unwilling or unable to take a 'mentor' role.

Summary

Recording schemes might require the following from local museums:

- Accessible indexes to collections, e.g. the FENSCORE database and CRU reports/databases,
- Accessible catalogues of collections.
- Access to local collections for use as taxonomic reference collections, with appropriate facilities,
- Local museums might consider the following:
 - Encouraging local specialists (including those involved with schemes) to deposit well curated voucher specimens to support local and national records
 - Negotiating with schemes and records centres to deposit well curated voucher collections at museums with appropriate facilities and expertise

Recent Publications:

Information Management in Museums Second Edition

Elizabeth Orna and Charles Pettitt

Published by Gower on 5 May 1998
 Hardback ISBN0 566 07776 0 296 pages £50.00

Surrey Wildlife Trust Series:

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Graham Collins

Published by Surrey Wildlife Trust July 1995
 Hardback ISBN 0 952 6065 0 X £12.00

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Graham Collins

Published by Surrey Wildlife Trust July 1997
 Hardback ISBN 0 952 6065 2 6 £18.00

Dragonflies of Surrey

Peter Follett

Published by Surrey Wildlife Trust July 1996
 Hardback ISBN 0 952 6065 1 8 £12.00

Soon to be published: Hoverflies of Surrey July 1998

(If anyone would like to review these publications for the Biology Curator please let the Editors know. Thank-you)

Partnership with local and national specialists to improve the taxonomic veracity of local collections and to catalogue existing collections

Partnership with local specialists to provide archival facilities for documents associated with local collections and local recording (e.g. personal notebooks)

Recording schemes and local museums should develop partnerships so that local and national specialists work together with museums to develop the taxonomic skills of new cohorts of recorders, using local collections and local facilities.

Local museums, and especially their governing bodies, should be more aware of the vital role they could and should play in interaction with field naturalists and biological recording initiatives. In most cases museum professionals already have a duty to promote the use of collections in their care and most museums have, or should have, collection policies. It would be advantageous if museum accreditation could take account of this important aspect of the role of museums in society. Only by reinforcing the need for museums and the relevance of the collections that they hold to the society that they serve, will we be able to continue to justify the existence of and demand for resources for museums.

Acknowledgements

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Colour Change in Cabinet Skins

As a professional bird illustrator, I have used the collection at Tring for many years for reference, and have

become interested in the question of the alteration of plumage colours in cabinet skins.

There are nowadays a large number of illustrators using the collection at Tring, and there is a continuing assessment of racial differences based on small variations of plumage colour. I would like to raise the issue of trying to establish exactly what colour changes take place in skins, and what impact this might be having on all the work that is going on.

Thinking about this has led me to re-read the article published in 1947 in *British Birds*, Vol XL, pages 322-325 by Reginald Wagstaffe and Ken Williamson on "Cabinet colour changes in bird-skins and their bearing on racial segregation". This is really quite alarming, in that substantial colour changes in even recently collected material were detected by comparison with freshly dead birds. Presumably some changes take place soon after a skin is prepared, and some over a much longer period of time. I guess that the slow-down in collecting in recent years will render much comparison impossible, and which of the historic skins really retain validity? Much of the collection at Tring is already old - what will it be like in 50 years time?

I wonder if there are any recent studies by museum workers anywhere on this topic? It could certainly be interesting to compare freshly dead collected material from Africa, for instance, to existing skins, to determine what changes have taken place. In critical groups like greenbuls and warblers it might help to have a note actually published near the relevant plates to alert users to the situation.

I would be very interested to hear the views of BCG members, and whether they think it would be useful to initiate some research or debate. It may well be, of course, that much has been published within the museum world about this subject, and I would certainly be interested to get details.

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Did Richard Buxton ever collect any *Rubus* specimens?

The artisan botanist Richard Buxton (1786-1865) author of the *Botanical Guides to the Flowering Plants about Manchester* (1849, 1859) actually studied the Manchester *Rubi* for no less than seven years. Buxton although only a clog-maker by trade realised that his knowledge of local botany actually exceeded that of 'more learned men'. Perhaps he was referring indirectly to botanists such as L. H. Grindon (who also produced a *Manchester Flora* in 1859) and J. Sidebotham? A few specimens of a very limited number of bramble species were collected by Grindon and Sidebotham during the 1840s from the Manchester area and are housed at Manchester Museum (MANCH) mainly within the Charles Bailey collection. It should be noted however that a collection of *Rubus* stem leaves presumably of local brambles is to be found in Grindon's herbarium of cultivated plants (MANCH) which would probably have been used in botany class demonstrations. These local exiccatae fall short of a complete representation for the *Rubus* accounts

compiled for the local floras of the time. Perhaps a comprehensive collection of *Rubus* specimens was never actually compiled? If this is the case modern day batologists can only suggest possible identities for the bramble records of the mid 19th century.

In view of Buxton's emphasis on his superior knowledge of the genus *Rubus* it was thought that Buxton may have collected a series of specimens during his seven years of investigation of the genus. Kent & Allen (1984) indicate that Buxtonian specimens are housed at Oxford (OXF), however D. E. Allen informs the author in correspondence that he can not recall having ever encountered any *Rubus* specimens collected by Buxton. Serena K. Marner, the manager of the Druce-Fielding herbarium at Oxford informs me that although there are specimens collected by Buxton of *Carex* species and bryophytes at OXF no details of any *Rubus* specimens are listed. Perhaps if any specimens were ever collected they may have been passed onto an associate or were purchased by a collector after Buxton's death? Another possibility is that although Buxton may have known the Manchester bramble species very well indeed, his social situation was such that he could only manage to collect a few sedges and bryophytes, Buxton being a poor man who resided as a lodger with his sister in Gun St. Ancoats, Manchester.

Several species of bramble which occur in the Manchester area will soon be described by the author of this Article. Could Buxton have collected specimens of any of these undescribed brambles? He would certainly have seen such plants whilst carrying out his research of the genus and may have been able to distinguish such plants from related taxa. Also many Cheshire/Lancashire species remained undescribed until Alan Newton tackled the genus in 1970s and again Buxton would have almost certainly have encountered such plants on his forays.

If any museum curators or readers can locate or know of the existence of any Buxtonian bramble specimens I would very much appreciate the forwarding of details, which will be included in the *Rubus* accounts for the Flora of Salford, the forthcoming Lancashire Flora and the descriptive papers.

Dave Earl, 4 Meadow Way, Brooklyn Park, Gravel Lane, Banks, Nr. Southport PR9 8BU.

E.C.Riggall - Lost Beetle Collection and Data

Does anybody know the whereabouts of the collections of E.C. (Carey) Riggall? I am beetle recorder for the Lincolnshire Naturalists' Union and I am preparing a county fauna of Lincolnshire beetles.

Carey Riggall lived at Louth and then Collingham near Newark and collected in both Nottinghamshire and Lincolnshire in the 1940s to 1970s. He was recorder for

Lincolnshire for the LNU for that period and local naturalists supplied records and specimens to him over the whole of that period. His collections and possibly his notebooks, were sold when he died in 1974. Fifty store boxes were delivered to Watkins and Doncaster in Kent but unfortunately there is no record of what became of them. He kept 'the records', i.e. those of the LNU, which presumably dated back to the earlier recorders of Arthur Thornley and William Wallace. These records have not been found either but were used to compile the county fauna, produced between 1907 and 1914 (Thornley and Wallace 1907-1914).

Lincolnshire is a fairly poorly recorded county, entomologically. This represents a huge gap in the date coverage for both counties and it would be useful to follow up some of his published records. Can anyone help with further information?

Roger Key, 67 Peterborough Road, Crowland, Lincs., PE6 0BB. 01733 210541

Reference

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Book Review

Natural History in Wales

National Museums and Galleries in Wales

Editor: D.M.Spillards

ISBN: 0 72000 0440 S First Published 1997

This is a well presented book, full of attractive photographs which, as a teacher, I find appealing since I like 'picture books'. Whilst I like the book and find the text well written, easy to understand and accurate, I do have some problems - just who is the book aimed at ?

Tourists may find the book an attractive souvenir and certainly many photographs evoke for me, memories of happy holidays spent in Wales, exploring its beaches, woods and mountains. However, this appeal may be limited due to the vast task that the authors have set themselves, since there is little coverage about specific areas.

I am sure that the text will work well in the museum alongside the displays for it does give a real feeling for the variety and 'specialness' of Wales. Many visitors may be inspired to explore some of these habitats and will seek out more specific information about the region they are visiting and I can also see this text being very useful as a starting point for the study of a variety of natural history topics.

Trish Harper

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