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## The Biology Curator

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

Author(s): Barnard, P.

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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.)