

NEWSLETTER

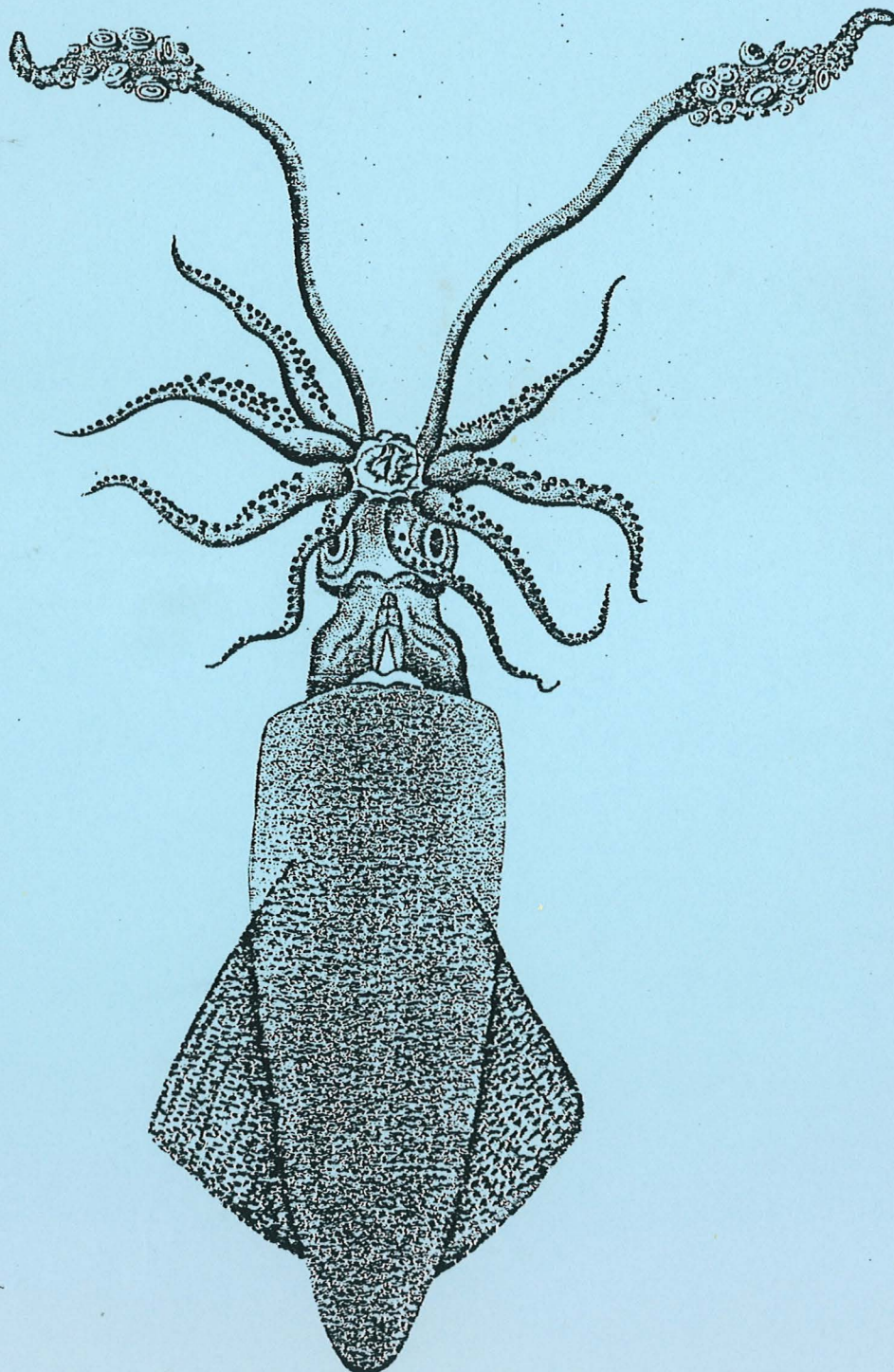
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Volume 3 Part 8

February 1984

Biology Curators' Group



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Editorial

The prospect of a Biological Recording seminar later this year is a good excuse to examine the role of Local Biological Records Centres. A thought provoking article (and, I hope, comment provoking) by Bill Ely is published in this newsletter.

The article concerns species and site recording and touches on a few points I have been thinking about for a time. These involve site recording, a field for which no recognised national network exists at present. Not only is the approach to site recording very diverse, but the use of data by LBRCs is equally so. The form in which data is collected and stored must be tailored to its potential users. Some LBRCs are heavily involved in planning decisions, SSSI selection and even reserve management. How far should we get involved and how much time can we justify spending on such activities? Is this a role that is best played by a national body, or should museums be looking for extra staff to specialise in this field? At present we feel that the level of involvement of most museums is dependent on the demands by other bodies and the time and inclination of the curator; no clear national strategy exists. Do curators think that they could leave this aspect of their work to other bodies, such as local authority ecologists or even planning authorities? Where do we draw the line?

Comments please for the next issue. Even a half page on what approach you take and why would be of interest.

Happy New Year!

N.B.

Subscriptions for 1984 were due on January 1st. If you have not yet paid then please do so; further reminders are time-consuming and expensive. The rates remain unchanged for 1984: £4.00 personal membership, £7.00 institutional and overseas membership.

Please note that BCG membership is now approved for income tax exemption, and approval has been effectively back dated to April 6th, 1982. Please inform your local Tax Office and make the necessary claim. The letter I received from the Inland Revenue is reproduced below and gives full details.

John Mathias, Hon. Treasurer



Inland Revenue
TECHNICAL DIVISION
Somerset House
London
WC2R 1LB

Tax Relief

Dr J H Mathias
Honorary Treasurer: Biology Curators' Group
Leicestershire Museums Service
96 New Walk
Leicester
LE1 6TD

Our reference

T1644/8/1983/SMM

Date

22 Sept 1983

Dear Sir

BIOLOGY CURATOR'S GROUP

I am pleased to inform you that this body has been approved for the purposes of Section 192 Income and Corporation Taxes Act 1970 (formerly Section 16 Finance Act 1958) and that the whole of the annual subscription paid by a member who qualifies for relief under that Section will be allowable as a deduction from his emoluments assessable to Income Tax under Schedule E. If any material relevant change in the circumstances of the body should occur in the future you are requested to notify this office.

I should be glad if arrangements were made for members to be informed of the approval of the body. The circumstances and manner in which they may make claims to Income Tax relief are described in the following paragraphs, the substance of which will no doubt be passed on to members.

With effect from the year commencing 6 April 1982 a member who is assessable to Income Tax under Schedule E in respect of the emoluments of an office or employment is entitled to a deduction from those emoluments of the whole of the annual subscription which is due and payable by him to the body in the Income Tax year, provided that

- a. the subscription is defrayed out of the emoluments of the office or employment, and
- b. the activities of the society so far as they are directed to qualifying objects are relevant to the office or employment; that is to say, the performance of the duties of the office or employment, or the exercise of the profession concerned, is directly affected by the pursuance of the qualifying objects.

A member of the body who is entitled to the relief should apply to his Tax Office as soon as possible giving details of his subscription and making a claim for the relief due to him.

Yours faithfully

S M MacKinnon

S M MacKINNON

NEWS

BCG News (Notes from the Committee meeting of 18 October 1983)

BRC Seminar. Arrangements are progressing well. It will take place in Leicester on 13/14th September 1984. See the next BCG Newsletter for details, but if interested please book on the enclosed form.

Historical Taxidermy Seminar. An outline plan has been prepared. It may be held in Spring 1985, possibly in conjunction with the AGM.

It was agreed that Rosina Down should attend GCG meetings as the BCG representative.

The Committee discussed the White Paper "Streamlining the Cities" which will have a grave effect on various museums and museum services. It was agreed to form a joint working-party with GCG to comment on the implications for Natural Science collections. A resume of the report produced by this working party is included in this newsletter.

Natural Sciences Diploma Course - The original 10 day course has been reduced to 5 days! The details are presented in this newsletter. All natural science curators are urged to support it. (It is not only for Diploma students).

ADVERTISEMENTS

The Committee of BCG is looking for a volunteer to take responsibility for selling advertising space in the Newsletter. This is at present performed by the Editor, but he feels that he cannot give enough time to this work.

At present the Newsletter does not include many adverts so there must be potential for improvement. One glance at the Geological Curator confirms this. If anyone is interested please contact Penny Wheatcroft.

Reports

Chairman's Report for 1983

During the course of the year two meetings have been held and both were poorly attended. The Annual General Meeting was held in March at the Hancock Museum, Newcastle-upon-Tyne. For those that attended a most interesting and rewarding meeting was held and I am sure that all of us were most impressed with the work carried out by this Museum. In July another fascinating meeting was held at the Harrison Zoological Museum and Reserve, Sevenoaks. Clearly it is not worth the committee and meeting organisers bothering to arrange a meeting if the membership does not respond by attending them. This year a major meeting will be held at Leicester on biological recording. Please ensure that this is well attended by making your booking in good time. (For details, see elsewhere in this issue of the Newsletter).

The committee continues to have full agendas and its work is fully reported in the Newsletter. This has been published regularly and has contained some most interesting articles. The Newsletter is a most valuable part of the Group's work and I am sure you will keep the editors supplied with copy. The Group is also active in continuing its series of B.C.G. Reports and No. 2 on the Wildlife and Countryside Act was published during the year. It is hoped that a third, comprising a bibliography of zoological techniques by Reg. Harris will be published in 1984.

The committee continues to have concern over the future of natural history in museums and particularly in respect of collections. It was therefore most rewarding to learn during the year that the Museums Association's applications for grant in aid to support a years research work on the state and status of biological collections had been successful. In September, Dr. Bernice Williams took up her appointment at Cardiff and was soon enthusiastically pursuing her project. I am sure you will all give her every support she needs to complete her work and hopefully by the time you read this report you will have completed and returned the bulky questionnaire. During 1984 her work should be finalised so that in the light of her report a further conference may be convened in Cardiff in 1985. However, it would have been helpful if the report of the conference held in 1982 had been published quickly as originally intended. Perhaps better late than never!

However, late in the year the Government's proposals for the abolition of the Metropolitan County Councils and the Greater London Council contained in the White Paper streamlining the Cities gave the committee many worries. Accordingly, a small working party was established jointly with the G.C.G. and comments were submitted by the two Groups in December to the Minister for the Arts and the Office of Arts and Libraries. A great deal of work was involved in preparing the comments and new information was provided on the importance of the collections and services provided by the museums affected. Taken together with other issues affecting local government and universities the problems facing institutions holding biological collections, whether or not they call themselves museums, are immense. Time will tell if we are making progress.

During 1984 many difficult issues are, I am sure, going to come forward but I hope that this will not deflect the Group's activities in helping members to just get on with the job.

E.F. Greenwood
January, 1984.

BIOLOGY CURATORS' GROUP
Secretary's Report 1983-4

The committee of the Biology Curators' Group met four times during the year, on 26th April, 19th July and 18th October 1983 and on 12th January 1984. All the meetings were held at the British Museum (Natural History) and the Committee continue to be grateful for this hospitality.

Various BCG members attended the triennial ICOM Conference in London, as delegates and as speakers. Members also participated in the ICOM Natural History Committee excursion to the North of England and Scotland, and made overseas visitors welcome. BCG members attending the Museums Association Conference in Swansea were welcomed by Dr. Michael Isaac of Swansea Museum, and the conference programme included several Natural History options.

A BCG and GCG working party put forward proposals for a Natural Science Diploma Course, and a five day course format has now been agreed with the Museums Association (details later in this Newsletter).

The Group has commented through the Secretary on the review of the Area Museum Services. A working party set up with GCG has produced detailed submissions on the consequences to Natural History museums of abolishing the Metropolitan Counties and GLC. The Committee also discussed the future of Grants-in-Aid schemes, relationships with H.M. Customs and Excise and registration of Egg Collections, among other subjects.

The Committee has been represented at meetings of the Professional Groups Committee, the Geology Curators Group and the Working Party on Natural Sciences Resources. Charles Steel has continued to act as Museums Association Liaison Officer, and provided a useful link with developments in other disciplines.

Penny Wheatcroft
Hon. Secretary

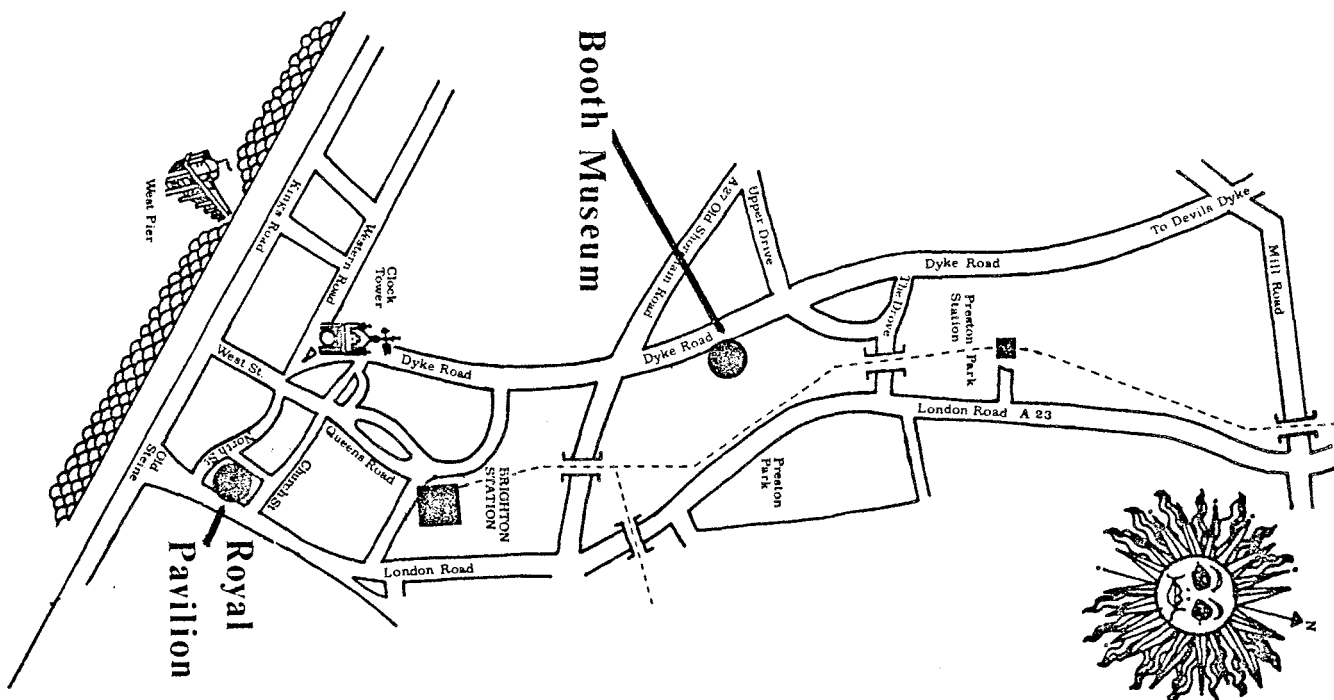
AGM

The 1984 Biology Curators' Group Annual General Meeting will be held at the Booth Museum of Natural History in Brighton at 2.00 p.m. on Friday, 6th April.

The associated programme of talks is set out below.

- 10.30 a.m. Assemble and coffee.
- 11.00 - 11.20 a.m. Brighton's Natural History Collections: an Historical Introduction (Charles Steel).
- 11.20 - 11.50 a.m. Brighton's Documentation System (John Cooper).
- 11.50 - 12.20 a.m. Special Problems of Curation and Documentation of Brighton's Biological Collections (Gerald Legg).
- 12.30 - 2.00 p.m. Lunch.
- 2.00 - 3.00 p.m. A.G.M.
- 3.00 - 4.00 p.m. Tour of collections and demonstration of osteological techniques (Jeremy Adams).
- 4.00 p.m. Tea and depart.

Lunch: A suitable venue for lunch is situated close to the Museum. A map is reproduced below. Anyone with queries should contact Charles Steel.



BIOLOGY CURATORS' GROUP

Notice of Annual General Meeting - 1984

The Annual General Meeting of the Biology Curators' Group will be held at 2.00 p.m. on Friday, 6th April at the Booth Museum of Natural History, Brighton.

Agenda

1. Apologies
2. Minutes of the Annual General Meeting held on 25th March 1983 at the Hancock Museum, Newcastle upon Tyne.
3. Secretary's Report (to be circulated).
4. Treasurer's Report (to be circulated)
5. Editor's Report.
6. Election of Officers and Committee
7. Date and Place of next meeting.
8. Any other business (any business under this heading should be notified in writing to the Honorary Secretary at least four weeks before the meeting).

Nominations are invited for Officers and members of the Committee:

Present position: (Year of election in brackets)

<u>Chairman</u>	-	Eric Greenwood (1979)	willing to stand for re-election
<u>Secretary</u>	-	Penny Wheatcroft (1983)	" " " " "
<u>Treasurer</u>	-	John Mathias (1980)	" " " " "
<u>Editor</u>	-	Steve Garland (1982)	" " " " "
<u>Committee</u>	-	Charles Copp (1983)	" " " " "
		Rosina Down (1983)	" " " " "
		Geoff Halfpenny (1983)	" " " " "
		Peter Lambley (1982)	" " " " "
		Martin Brendell (1979)	due to retire
		Howard Mendel (1980)	" " "
		Peter Morgan (1979)	" " "

The committee has the power to co-opt. Present co-opted members are Jim Bateman, Peter Davis and Bari Logan.

The present committee consists of 9 posts of which only 7 are presently filled.

Nominations: Nominations for Officers and Committee members must be supported by two members of the Group. Nominations, in writing, must reach the Secretary at least two weeks before the Annual General Meeting. (A signed statement that the nominee is prepared to stand is also useful).

Penny Wheatcroft, Hon. Secretary, Horniman Museum, London Road, Forest Hill, London SE23 3PQ.

A Seminar

Biological Recording and Museums

1) Introduction

For the last fifteen years or so museums have been actively involved in biological recording and in providing local biological record centres. The extent and scale of the services provided was analysed in two recent articles, (Harding, P.T. and Greenwood, E.F. survey of local and regional biological record centres. BCG Newsletter, 2: 468-478 (1981); Greenwood, E.F. and Harding, P.T. survey of local and regional biological record centres - analysis of results. BCG Newsletter, 3: 108-114 (1982)). Since these articles were written museums have continued to be active in this field and the BCG now feels that it would be appropriate to focus attention in these centres by means of a two day Seminar.

2) Aims and objectives of the Seminar

The aim of the Seminar is to discuss the function and role of local biological record centres as a part of a wider network of voluntary and official organisations involved in biological recording and to discuss whether or not they provide a useful public service that is adequately funded. An objective of the conference might be to make suggestions as to the future role of local biological record centres.

3) Final Discussion

During the course of the meeting many issues will be discussed but in the final discussion period the following questions, amongst others, should be asked and answered.

Is the present situation, both nationally and locally, of biological recording, storage and retrieval of data satisfactory?

Should agreed standards be set for all biological recording? If so, how should this be achieved?

Can and should museums provide a biological data bank service.

If museums should provide a service, what kind of service should be provided and for whom?

If museums should provide a service, are they adequately financed and by whom should they be financed.

Biological Recording and the use of site
based biological information

Date of Venue: A two day seminar to be based at Leicestershire Museums, Art Galleries & Records Service, and Leicester Polytechnic, 13-14th September, 1984.

Draft Programme.

Thursday, 13th September.

10.00 a.m.	Assemble and Coffee.	
10.30-10.45 a.m.	Opening remarks.	Chairperson: P. Boylan, Leicestershire Museums, Art Galleries & Records Service.
10.45-11.30 a.m.	Museums as Biological Recording Centres.	P.W. Lambley, Castle Museum, Norwich.
11.30-12.15	The role of the National Biological Records Centre	P.T. Harding, Institute of Terrestrial Ecology.
12.15-1.30 p.m.	Lunch	
1.30-2.00 p.m.	The Work of the Nature Conservancy Council: species Recording	Chairperson: F.H. Perring A. Stubbs, N.C.C.
2.30-3.00 p.m.	National Societies' Recording Schemes: British Trust for Ornithology	Dr. R.J. O'Connor, B.T.O.
3.00-3.30 p.m.	Tea	
3.30-4.00 p.m.	National Societies' Recording Schemes: Botanical Society of the British Isles.	D. Wells, B.S.B.I.
4.00-4.30 p.m.	National Societies' Recording Schemes: Bat Groups	H. Arnold
4.30-5.00 p.m.	Discussion	
Evening (45 Minutes talk)	The role of Nature Conservation Trusts in obtaining and using site based data. Discussion.	Chairperson: M. Walpole S. Crooks, R.S.P.N.C.

Draft Programme (continued)

Friday, 14th September.

Chairperson: G. Stansfield

- | | | |
|------------------|---|---|
| 9.00-9.45 a.m. | The use of micro-computers in marine biological site recording | D. Erwin, The Ulster Museum. |
| 9.45-10.15 a.m. | The use of local biological Record Centres 1. | J. Lavin, Cliffe Castle, Keighley |
| 10.15-10.45 a.m. | The use of local biological Record Centres 2. | I.M. Evans, Leicestershire Museums, Art Galleries and Records Service |
| 10.45-11.00 a.m. | Coffee | |
| 11.00-11.45 a.m. | The biological data requirements of a local authority Planning Department | R. Gemmell, Lancashire County Council. |
| 11.45-12.30 | The problems of biological site evaluation | P.H. Smith, Liverpool Polytechnic. |
| 12.30-1.45 p.m. | Lunch | Chairperson: ?? |
| 1.45-2.30 p.m. | Why Museums? | A. Tynan, The Hancock Museum, Newcastle upon Tyne. |
| 2.30-3.15 p.m. | The problems posed by the absence of a local B.R.C. | A. Walker |
| 3.15-3.30 p.m. | Tea | |
| 3.30-4.00 p.m. | Financial and administrative problems faced by a local authority local B.R.C. | P. Boylan |
| 4.00-5.00 p.m. | Discussion and conclusion | Chairperson ?? |

THE HISTORY OF PROVINCIAL MUSEUMS: A Seminar.

A seminar to be held at Birmingham City Museum and Art Gallery on Thursday, 29th March 1984. Organised by Gail Durbin, Norfolk Museums Service and Stuart Davies (Birmingham City Museum).

PROGRAMME:

- 10 Assemble & Coffee
- 10.20 - 11 Early Philosophical Society Museums in Yorkshire
Peter Brears (Leeds City Museum)
- 11 - 11.40 History of Social History Museums
Geoff Marsh (Museum of London)
- 11.40 - 12 Questions and Discussion
- 12 - 1 Discussion Groups:
- Group A Early Museums (up to c. 1850)
Led by Bob Rutland (Leicester Museums) and
Steve Blake (Cheltenham Museum).
- Group B University Museums.
Led by Gillian King (University Museum, Oxford)
and Adrian Allan (Archivist, University of Liverpool)
- Group C Collections
Led by Janet Barnes (Graves Art Gallery, Sheffield)
and Valerie Reilley (Paisley Museum)
- 1 - 2.15 Lunch
- 2.15 - 3 Provincial Museums during the First World War
Gaynor Kavanagh (Museum Studies Department, Leicester University)
- 3 - 3.50 Open Forum on Local Authority Museums.
- 3.50 - 4.30 Tea. Reporting Back, Looking Forward.

FEE

The fee for the day will be £5.50. This includes coffee, a buffet lunch and tea, administrative costs and the cost of duplicating and sending out copies of bibliographies to all participants.

BIBLIOGRAPHY

We would like to compile a bibliography of museum history and feel that this seminar could be the place to start. We would be grateful if all participants could send in advance (to Gail Durbin, Castle Museum, Norwich NR1 3JU), or bring with them, a bibliography of the history of their own museum or service. We will then duplicate these and send every one a set. Bibliographies should be typed and clearly laid out on one side only of A4 sheets of paper, leaving $\frac{3}{4}$ " margins all round. Date and place of publication should be included as well as author's name and title of publication as appropriate.

TO APPLY

Fill in the attached form and return to Stuart Davies by 1st March 1984

Have scientific collections lost out?

Comments on the proposed abolition of Metropolitan counties.

In order to keep members informed, this is a summary of the statement prepared by a BCG/GCG working party. This was done in the knowledge that while effective lobbying on the behalf of the arts was being carried out, little comment on the affect this legislation may have on the scientific collections has been forthcoming. Indeed, the paper "The Government's proposals for the Arts" (note title) which was the basis of any development, omitted mention of such collections. The presentation of the facts regarding the total range of holdings and services provided by museums in Metropolitan counties was seen as a priority. The full report has been sent to the ministers responsible, the Office of Arts and Libraries, Museums Association, the Commission for Museums and Galleries and other bodies.

Services affected

Four institutions are directly affected - Merseyside, Manchester, Tyne and Wear and the Horniman. Four more disparate types of administration would be very difficult to find. Similarly, staffing levels, size of collections and range of services offered to the public differs. One factor does unite them - they all have a significance beyond that of any one metropolitan district. (Here it should be noted that there are other museums in metropolitan counties currently run by their respective districts, which, by various reasons, are not part of county systems, yet have collections of some significance. These are not mentioned anywhere but undoubtedly will be affected if these proposals are carried through, though precisely how is unpredictable at the moment).

The Government have stated their intention to reassess the block grant provision and the grant-related expenditure for museum services to ensure that District Councils can bear the cost of taking over responsibility. The groups have grave doubts as to whether the reassessment will be sufficient to maintain the existing services. Even if the Districts were to receive enough after reassessment to run the museum services at their existing level, there must be reasonable doubt as to whether they would spend it on museum services in circumstances where priorities may be directed towards housing, social services and education. In Tyne and Wear especially, but also elsewhere, it will involve a high degree of collaboration, which we fear may not be forthcoming.

It appears to the Groups that a large funding gap will emerge, and it seems most unlikely that other neighbouring districts would feel inclined to contribute or that voluntary contributions and other funding sources would make good the deficit.

Bearing in mind the differences in the services offered and the doubts expressed above, the Groups feel that an outline of the services in natural sciences offered by each museum may lead to a better understanding of the problem. These are detailed in the attached paper.

Conclusions

It is the view of the Biology and Geological Curators' Groups that the Metropolitan County Councils and the GLC have provided a sound basis for the funding and administration of museum services with more than local significance.

In Tyne and Wear a series of small museums have been grouped together to form a coherent service. In this way they can share the services of curatorial and conservation staff which, as individual museums, they found difficult to justify. Clearly, as there is a responsibility to safeguard their collections and make them available to the public, the most sensible and cost effective system is through a county-wide service.

The Government has recognised the importance of the Horniman Museum, but to make the museum the responsibility of the trustees of the British Museum, where there is no expertise in natural history, is to disregard the significance of the Horniman's natural history collections. In view of the existence of other museum services in the Greater London Council area it seems sensible that a unified structure should be established for their administration. We therefore commend for serious consideration the recommendation of the Area Museum Service for South East England that a Joint Board for Museums, Arts and Recreation in London be established.

The Merseyside County Museums and the Manchester Museum are two of the country's most outstanding museums and the two Curators' Groups find it astonishing that the consultation paper does not recognise them as of national importance. The size and importance of their collections, together with the nature of the services offered, extend beyond, not only the local authority districts in which they are situated, but beyond the administrative areas of the present Merseyside and Greater Manchester County Councils. Indeed, on a European scale they are two of a small number of institutions recognised by the European Science Foundation¹ as having collections of national importance. Furthermore, the Advisory Board for the Research Councils made it clear in their report² (Recommendation 6) that resources should be made available for their curation. In view of their importance to the nation, it would be quite unfair to give this responsibility to local authorities at district level, and these museums should be recognised as institutions of national importance and receive appropriate central government funding.

The Groups have refrained from making detailed comment on present or future financial provision for a number of reasons. However, we feel that county-wide services should not be administered or financed by a single District and museums such as the Manchester and Merseyside County Museums with national significance, should receive additional funding from Central government. In this context the Museums and Galleries Commission would appear to be the appropriate body to negotiate and channel such funds to the museums concerned.

References

1. Heywood, V. H. and Clark, R. B., eds. (1982). Taxonomy in Europe. Final report of the European Science Research Council's ad hoc group on biological recordings, systematics and taxonomy. North Holland Publishing Company.

2. Smith, E., chairman, (1977). Taxonomy in Britain. Report by the Review Group on Taxonomy set up by the Advisory Board for the Research Councils. HMSO.

Biology Curators Group
Geological Curators Group
November, 1983.

(The joint statement then followed with an appendix describing the collections, staffing levels and services provided by the museums in question).

Natural Science Curators' Course

New Course at Leicester

NATURAL SCIENCE CURATORS' COURSE
30 April - 5 May 1984

This one week course will look at the special characteristics of natural science museums and aspects of the practice and collection management in them.

Planned in consultation with the BCG, GCG and with the generous co-operation of Leicestershire Museums, this will provide a refresher course for those concerned with natural science curatorship and be particularly useful for Museums Association Diploma students taking natural science as their special subject.

Course Tutor: Geoff Stansfield
Course Fee : £152 plus accommodation

Natural Science Curator's Course Monday April 30th - Saturday May 5th

Timetable

Monday	0930	Registration
	1000	Introduction to the Course
	1015	The present state of natural history museums - an overview - to include brief history, organisation, functions, present trends followed by discussion.
	1100	Coffee
	1130	Collection management
		1. Collecting policies, legal and ethical considerations, Codes of Practice, policies according to type of administration, research v exhibition
	1300	Lunch
	1400	Collection management
		2. Overview of existing collections. Nature of collections (Dry, spirit, freeze dried etc), distribution within museums, standards of care and documentation, geographical origins, how acquired, staff provision.
	1530	Tea
	1600	Visit to Leicestershire Museums to see stores, documentation etc
Tuesday	0930	Collection management
		3. Documentation of collections. Special requirements of natural history collections, identification, habitat recording, site recording, review of progress in the computerisation of collection data.
	1100	Coffee
	1130	Collection management
		4. Housing collections. Environmental requirements, security, storage, handling, packing and transport, fumigation.
	1300	Lunch
	1400	Collection management
		5. Problems associated with older collections. How to assess importance, status of collectors, species coverage, geographical coverage.

Tuesday 1530 Tea
Continued 1600 Collection management

6. Research existing collections, bio-graphical research, Collection Research Units, watermarks, handwriting, etc.

Wednesday Visit to British Museum (Natural History)
Biologists to Entomology, Botany and Central Services
Geologists to Ron Croucher and P. Embry

Thursday 0930 Collection management

7. Theory of preparation, preservation and conservation in two groups

Biologists Methods of killing, fixing, relaxing, preservation to include spirit collections, freeze-drying, preparation of study skins, identification and treatment of conservation problems

Geologists Preparation and development of techniques, thin sections, peels, treatment of pyrite rot etc.

1100 Coffee

8. Practical demonstrations of preparation and conservation techniques in two groups

Biologists Herbarium mounting, fluid preservation, osteological preparation, skinning and making cabinet skins, casting techniques, genitalia preps

Geologists Development of fossils, consolidation techniques, treatment of pyrite

1300 Lunch
Practical demonstrations (continued)

1530 Tea
1600 Project on exhibition at Leicestershire Museum

Friday 0930 Exhibition - policies and practices
Long term, short term and travelling exhibits, Exhibition policies, exhibition techniques

1100 Coffee
Exhibition - policies and practices (continued)
Live exhibits, nature trails, excursions, visitor centres.

1300 Lunch
1400 Environmental recording and Environmental Record Centres

1530 Tea
1600 Liaison with other bodies
To include I'E, NCC, County Trusts, Planning Depts, Natural History Societies, learned societies, universities, etc.

Saturday 0930 Natural History Museum publications
1100 Coffee
1130 The literature relating to natural history
museums
1300 Lunch
1400 Discussion
1500 Mock practical for Diploma Students

COLLECTIONS AS BEQUESTS

Occasionally over the years I have been told by keen amateur naturalists, "I don't know where my insect collection should go when I am no longer here. I suppose it ought to go to the Natural History Museum".

Now I know well enough that the BM(NH) has far more British macrolepidoptera than it needs and will not receive another collection with great enthusiasm. I was recently sounded out about a collection of British butterflies built up over many years, with many named varieties, in immaculate condition. As they are mostly from the south of England they are not of primary interest for our Zoology Museum here which already has about 150 drawers of Lepidoptera. I was not able to offer any suggestion as to the best home for these insects.

Recently I was reading in the current 'National Trust' publication an article on the National Art-Collections Fund. I was most interested to read the following:

"So often a collector is not sure where to leave his precious possessions, and the museum he knows may only be interested in some of his works of art. The NACF through its contacts with museums throughout the country and the Trust can advise where the objects would best be placed and appreciated".

This suggests the possibility that the BCG could set up an informal system which would not only help collectors find a final resting place for their treasured collections, but also give museum natural history departments the chance to publicise desiderata and draw attention to under-represented sections in their own collections. As a start, could anyone suggest a good home for the Lepidoptera referred to above?

Mrs. M. J. Morgan
School of Animal Biology, University College of North Wales, Bangor, Gwynedd.



Letters

City of Birmingham

CITY MUSEUMS AND ART GALLERY

Birmingham, B3 3DH.

Telephone 021-235 9944

Michael Diamond MA, FMA
Director

your ref

our ref MD/SJ

date 22nd December 1983

telephone calls to Mr. M. Diamond

direct line 021-235 2833

Derek Whitley Esq.,
The Editor,
Biological Curators Group,
City Museum,
Weston Park,
Sheffield 10.

Dear Sir,

Brian Seddon's curious contribution to Vol.3 part 7 has been brought to my attention. Its purpose appears to be to shift blame for apparent inactivity in Birmingham's Natural History Department to myself or my predecessor.

This is odd, since some good work has been done by the Natural History Department during the period concerned. Brian himself has made a considerable contribution both to this museum and to natural history through his development of computer documentation systems for the collections. A number of worthwhile exhibitions have been mounted in the old Human Biology Gallery (which was dismantled without any reference to me), and I have made available considerable sums of money for improvements at the Birmingham Nature Centre. Also not recorded is my predecessor's allocation of substantial extra space to the Natural History Department for offices and storage.

Brian is by no means alone in his frustrations over new displays. The fact is that his new scheme has a very high priority out of eight or ten planned projects. Nor has it been 're-scheduled', as it was never scheduled in the first place. Furthermore, the scheme which has first priority will allow us to release back to his use the offices temporarily allocated to Museums Education in 1981. I could go on to make similar comments on many of the other points that Brian raises, but I think I have said enough to suggest that Brian's remarks are less than totally reliable. I remain hopeful that significant improvements to the permanent displays will be possible in the foreseeable future.

Yours faithfully,

Michael Diamond



The Editor,
Biology Curators' Group,
Sheffield City Museum,
Weston Park,
SHEFFIELD. S10 2TP

City Museum and Art Gallery
Broad Street
Hanley
Stoke-on-Trent
ST1 4HS

Telephone
Stoke-on-Trent 29611 (STD Code 0782)

Your ref

Our ref KPB/LW

Date 19th. December 1983.

Dear Mr. Whiteley,

Re: A Survey of Species Recording Schemes in local Biological Record Centres (B.C.G. Newsletter Vol. 3 Part 7 1983).

I read with interest your article on Biological Recording schemes. I am presently supervising an Environmental Survey of Stoke-on-Trent which is sponsored by the Manpower Services Commission. The scheme is aided by the use of a micro-computer, thus speeding data retrieval and increasing the flexibility of presentation. The enclosed copy outlines the Survey's aims, recording structure and data management.

STOKE-ON-TRENT ENVIRONMENTAL SURVEY

The project, which commenced in August 1982, initially employed 13 people to record and interpret the Biological and Geological diversity within the City boundaries. The Geological component was completed in July 1983 with the culmination of 'A Complete Geology of Stoke-on-Trent'; a series of 8 booklets is on sale to the General Public, including a publication on the City's building stones. Site locality cards have been completed from literature reference sources and a collection of building stones amassed.

The biological part of the survey is still being carried out, the aims of which are:-

- 1) To identify and evaluate sites with respect to their education, recreational and scientific value.
- 2) To catalogue the flora and fauna of the City by:-
 - i) Direct field observation.
 - ii) Data extraction from existing collections at the City Museum.
 - iii) Extracting data from field journals.
- 3) To collect, prepare and store voucher specimens for the City Museum's collection.
- 4) To produce a computer data-base of biological information.
- 5) To complement the geological publications with a series of biological guides to Wildlife in the City.

Recording System and Data Management

All recording is done on a 1 kilometre square basis and is initially kept on standard B.R.C. species cards or the City Museum's own record slips (see B.C.G. Newsletter Vol. 3, Part 7, p. 403. 1983). Records are then entered on to a micro-computer which has the standard screen format shown below:

```
G.REF 10KM - 84  1KM - 72  100M - ?
BRC ABBREV - ALOPE PRA    TAXON - B06
GENUS      - ALOPECURUS
SPECIES    - PRATENSIS
HABITAT    - GLD(LO)
CENTURY    - 19
DATE       - 23-06-83
COLL/REC   - SOTES
DETERMINED - ?
COMMENTS   - ?
```

ENTERED - 12-15-83

Each major group is given its own TAXON CODE which enables, for instance, a full list of flowering plants to be obtained. Habitats are coded to facilitate extraction at different levels of detail, e.g. GLD(LO) refers to lowland grassland. As some records predated the twentieth century it was found necessary to incorporate the field CENTURY, i.e. 19 for the 1900's and 18 for the 1800's.

Records are stored in numerical order of a code derived from the Grid Reference (e.g. SK 1234 would become SK 13/24). The data can then be accessed and printed out using existing or newly defined print reports.

Work is currently being carried out to produce distribution maps automatically from the computer data base for inclusion in our forthcoming publications.

I would be very interested to hear from other museums with similar schemes.

Yours sincerely,



K.P.Bloor (Project Leader)

Featured Institution

BIOLOGICAL RECORDS CENTRE

Unlike earlier articles on "Featured Institutions", the following covers an institution without a single specimen to its name - our stock in trade is information - "data" - on the occurrence of plants and animals in the British Isles. Also we have no displays or galleries - our contact with the public is mainly through publications and meetings, and at the end of a telephone. But, because so many museums are also local biological records centres, it is hoped that this article will be of interest.

INTRODUCTION

The Biological Records Centre (BRC) at Monks Wood is run by the Institute of Terrestrial Ecology (ITE) with support, under contract, from the Nature Conservancy Council (NCC). BRC's main objectives are:

1. To set up and operate a computerised data bank of information on the occurrence of the flora and fauna of the British Isles;
2. to maintain an archive of the original records from which the data bank was compiled;
3. to make the data it holds available for research and documentation, nature conservation and general information.

BRC co-ordinates the collection of most of its information through some 60 National Biological Recording Schemes (Annex I). These schemes are organised by, or with the assistance of, acknowledged experts in the relevant groups and draw mainly on records given voluntarily by naturalists, research workers, museums and records centres.

ORIGINS

The idea of enlisting the help of voluntary recorders to provide information for a national species mapping project, information which it would otherwise be uneconomic to collect, was pioneered by the Botanical Society of the British Isles for the Atlas of the British Flora (Perring & Walters, 1962).

The Biological Records Centre was set up in 1964 by what was then the Nature Conservancy, and had the objective "to collect distribution data for plants and animals in the British Isles". As head of BRC, Franklyn Perring achieved a great deal in publicising the centre and realising this objective, assisted, particularly with the invertebrates, by John Heath. Dr Perring left to become Secretary-General of the Royal Society for Nature Conservation in December 1978. He was succeeded as head by John Heath, who retired in January 1982. Since February 1982 Paul Harding has been head of BRC.

9. Locality (where recorded and sufficiently precise), numbered in relation to a gazetteer of place-names.

Some data sets include additional information which is codified (eg habitat, determiner, developmental stage and status). Extra information for records from museum collections or for taxonomically difficult groups is included where relevant (eg museum code and catalogue numbers, date of determination, compiler and date of compilation).

The basic computer files of records in the data bank have to be augmented with several ancillary files which act as "dictionaries" to numerically coded information. For example, the following are standard for all data sets.

1. Order, genus, species (sub-species etc) names using the current accepted scientific nomenclature. In a few cases vernacular names are included.
2. Recorder/determiner/compiler surnames and initials. These can be cross-referenced to separately-held mailing lists.
3. A gazetteer of place-names based on names used by the Ordnance Survey and the Suirbheireacht Ordonais on published maps. Where relevant, and where known, the conservation status of sites is also noted (eg National Nature Reserve; Site of Special Scientific Interest; County Trust, RSPB or other Nature Reserve, National Trust property). This gazetteer will be cumulative, as it is at only an early stage of development. It should provide a valuable tool in providing site-related data and eventually in automatically checking the grid references provided with records.

These additional fields with every record, listed above, the extra fields where appropriate, and the three "dictionary" files greatly increase the uses to which BRC's data may be put. At present the BRC computerised data bank consists of over 2.5 million records (Table 1).

Archive

It is BRC's aim eventually to have an archive of the originals or copies of the record cards etc from which the computerised data bank was compiled. This is seen as necessary if the validity of records in the data bank is ever queried; reference back to the original record often enables queries to be answered. Also, some record cards provide additional information which it is not always possible to codify for inclusion in the data bank.

In most cases the original cards are held in BRC, but where the scheme organiser prefers to retain the originals, at least for the time being, micro-film copies are made and held in BRC. Records of some groups, processed before the present policy of a supporting archive was introduced in 1980, (eg Non-marine Mollusca, Birds) are not yet backed up by record cards in the archive.

Record cards

To accommodate the need for additional information with each record, the design of BRC recording cards has been modified in recent years. There are still three basic types:

LOCATION

Monks Wood Experimental Station is the largest of the 9 ITE stations, and lies in a small haven of woodland amid the open arable landscape of west Cambridgeshire. The station has a total permanent staff of about 75, of whom 7 make up the BRC project group. The station was purpose-built in 1962/63 but has been added to in several phases (the latest will be completed in April 1984). BRC shares one wing of the original station buildings (formerly a caretaker's flat and stores block) with the Natural Environment Research Council Computing Services (NCS) facilities for the station.

STAFF

The present staff, almost all of whom have joined the centre within the last 5 years, has just increased to 7, with the welcome addition of a second invertebrate zoologist. All of us have duties or small research projects outside our work in BRC - this helps maintain an acceptable level of sanity in the group!

The present staff and their duties are:

Head - P T Harding

Administration of BRC in relation to Monks Wood and ITE matters, customers and users; resource planning.

Data Editor - Mrs D M Greene

Compilation and maintenance of computerised data bank; development of improved data handling. Day to day interaction with NERC Computing Services, Science & Engineering Research Council (SERC) Rutherford/Appleton Laboratories and the Terrestrial Environment Information System at ITE Bangor.

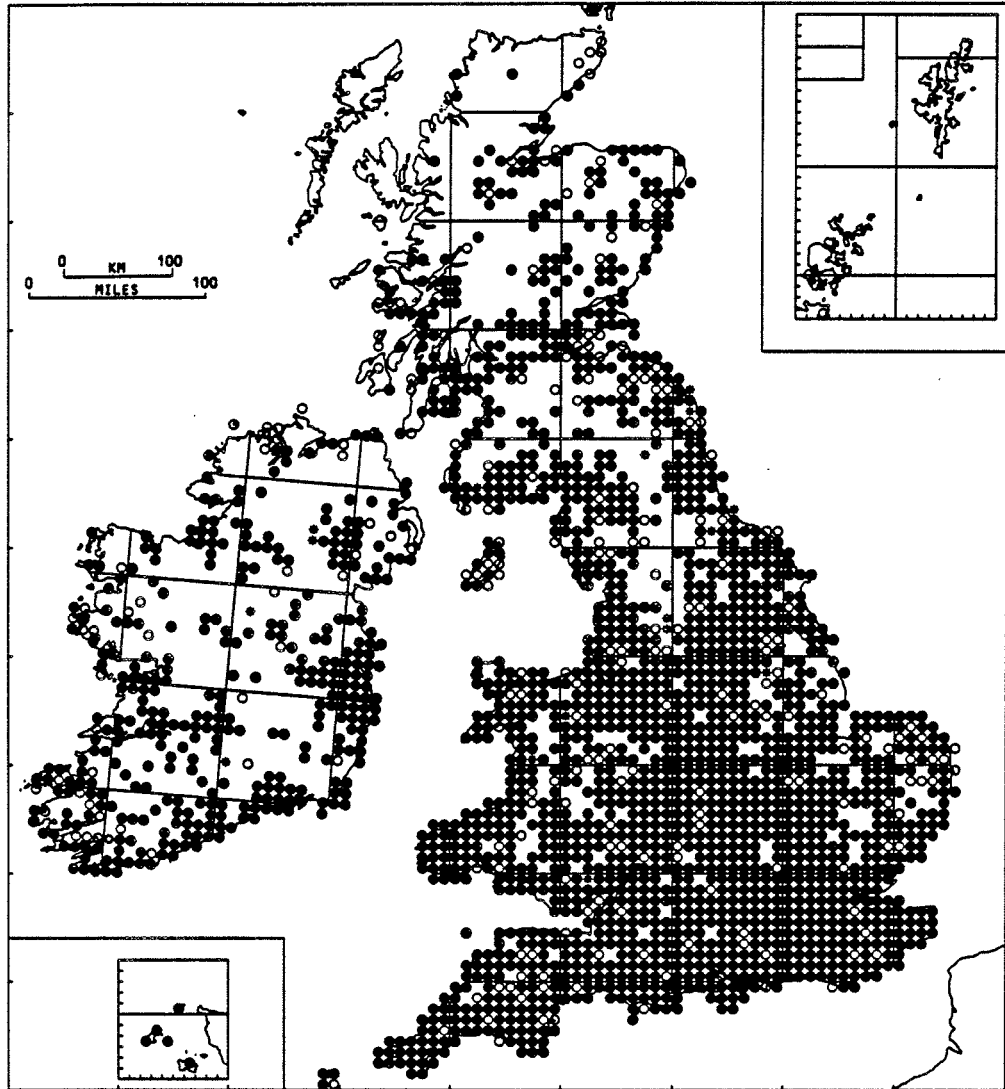
Recording Co-ordinators:

C D Preston	-	Plants
P T Harding)	-	Terrestrial and freshwater
B C Eversham)		invertebrate animals
H R Arnold	-	Vertebrate animals and marine invertebrate animals

Day to day contact with recording scheme organisers and other donors of data. Checking data at various stages prior to input to the data bank and archive, arranging publication of output from schemes, etc. Dealing with general enquiries related to schemes and requests for data.

Support staff - Miss R J Harper - data checking etc.
Mrs S M Weller - secretarial

FIGURE 1 FR80 map



LYCAENA PHLAEAS

COMPUTING FACILITIES

The computing facilities for the whole of Monks Wood are managed as a part of NCS, through which BRC has access to a mini-computer at Monks Wood, a DEC PDP 11/34 processor with 128K words of MOS memory. This is used for much of the preliminary work on data once they have been entered on computer file, checked, validated and edited. All the initial file sorting and structuring is done on the PDP; also listings and draft (line-printer) maps. The data bank is held on the IBM computer system at the SERC Rutherford/Appleton Laboratories using the G-EXEC management system. Distribution maps for publication are also run from the Rutherford/Appleton Lab using the FR80 high precision film recorder. This provides a map prepared by computer as a black and white bromide print (Figure 1).

WHAT IS A BRC RECORD?

In recent years BRC has been modifying its objectives and methods to enable greater use to be made of the data provided by recorders. It is no longer enough to know that an organism was recorded in a 10km square before or after an arbitrary date. Records of this type are only really of use for producing distribution maps, and can be misleading when put to other uses (eg demonstrating a decline in the occurrence, or the contraction of the distribution, of a species). To this end, wherever possible data put on computer file are derived from the original record cards completed by recorders and include as much information as possible. Scheme organisers are discouraged from compiling summarised "master cards" unless required for their own use; summarised records can only reduce the precision of the information and inevitable mistakes occur in copying records from one format to another. Clearly this is a reversal of BRC's earlier policy, and is only possible because of the increased computing facilities being used by BRC in recent years.

Data bank

To be able to fulfil the objectives given earlier, almost all data handled by BRC since the end of 1980 have been processed to create data bank files with at least the following "fields":

1. Order, genus and species code numbers (also where relevant, sub-species and variety)
2. Country (England, Wales, Scotland, Northern Ireland, Ireland (Eire), and Channel Islands)
3. Grid reference (all numeric, as complete as given by the recorder, up to 8 figures)
4. Watson/Praeger vice-county number
5. Date (as complete as given by the recorder)
6. Recorder code number
7. Altitude
8. Source (field record, museum collection, published record)

	No. species (approx.)	No. records on computer file (approx.)	No. record cards in archive (approx.)
TOTALS	7,870	2,763,100	507,650
<u>Plants</u>			
Marine Algae (Seaweeds)	650	60,000	2,000
Characeae (Stoneworts)	48	5,000	5,000
Bryophyta (Mosses & Liverworts)	900	60,000	8,000
Vascular plants*	2,500	1,500,000	230,000
Myxomycetes (Slime moulds)*	320	25,000	100
<u>Terrestrial & Freshwater Invertebrate Animals</u>			
Non-marine Mollusca (Slugs and snails)*	200	140,000	18,000
Hirudinea (Leeches)	16	4,200	200
Diplopoda (Millipedes)	50	7,000	-
Chilopoda (Centipedes)	50	5,000	4,000
Odonata (Dragonflies)	54	28,000	20,000
Orthoptera, Dermaptera & Dictyoptera (Grasshoppers & Crickets, Earwigs, Cockroaches)	35	10,000	10,000
Lampyris noctiluca (Glow-worm)	1	-	150
Rhopalocera (Butterflies)	72	250,000	50,000
Macro-Heterocera (Macro-moths)*	1,500	300,000	50,000
Dixidae (Meniscus midges)	14	900	900
Siphonaptera (Fleas)	60	-	16,000
Aculeata Hymenoptera (Wasps, Bees and Ants)*	620	9,000	-
Cladocera (Water-fleas)	80	-	2,000
Crangonyx pseudogracilis (Water shrimp)	1	-	50
Non-marine Isopoda (Woodlice and Waterlice)	50	27,000	20,000
Pseudoscorpiones (False-scorpions)	26	-	4,000
Opiliones (Harvestmen)	24	3,000	3,000
Parasitinae (Mites)	50	-	200
<u>Marine Invertebrate Animals</u>			
Dinoflagellates	200	27,200	2,250
<u>Vertebrate Animals</u>			
Freshwater Fish	60	1,800	1,800
Amphibians & Reptiles	14	-	20,000
Birds*	218	285,000	-
Mammals	60	15,000	40,000

* These data bank files are mainly of summarised data

DATA HELD BY BRC (December 1983)

TABLE 1

FIGURE 2 Species list card (RA 45)

Grid ref.	5302-19-	Habitat OPEN PARKLAND, MAINLY OAK & HAWTHORN			Vice-county name S. LINCS																																																																																																																										
	5302-19-	Recorder A.B. DRANE	Determiner A.B.D.	Compiler P.T. HARDING	Date 4 6 1983																																																																																																																										
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LOCALITY	GRIMSTHORPE PARK SSSI	<table border="0"> <tr> <td>71801</td><td>Prionus coriarius</td><td>73101</td><td>Trinophylum cribratum</td></tr> <tr> <td>71901</td><td>Arhopalus rusticus</td><td>73201</td><td>Gracilla minuta</td></tr> <tr> <td>71902</td><td>tristis</td><td>73301</td><td>Obrium brunneum</td></tr> <tr> <td>72001</td><td>Asemum striatum</td><td>73302</td><td>cantharinum</td></tr> <tr> <td>72102</td><td>Tetropium gabrieli</td><td>73401</td><td>Nathrius brevipennis</td></tr> <tr> <td>72201</td><td>Rhagium bifasciatum</td><td>73501</td><td>Molorchus minor</td></tr> <tr> <td>72202</td><td>Inquisitor</td><td>73502</td><td>umbellatarum</td></tr> <tr> <td>72203</td><td>mordax</td><td>73601</td><td>Aromia moschata</td></tr> <tr> <td>72301</td><td>Stenocorus meridianus</td><td>73701</td><td>Hylotrupes bajulus</td></tr> <tr> <td>72401</td><td>Acmaeops collaris</td><td>73801</td><td>Callidium violaceum</td></tr> <tr> <td>72501</td><td>Grammoptera holomelina</td><td>73901</td><td>Pyrrhidium sanguineum</td></tr> <tr> <td>72502</td><td>ruficornis</td><td>74001</td><td>Phymatodes alni</td></tr> <tr> <td>72503</td><td>ustulata</td><td>74002</td><td>testaceus</td></tr> <tr> <td>72504</td><td>variegata</td><td>74101</td><td>Clytus arietis</td></tr> <tr> <td>72601</td><td>Allosterna tabacicolor</td><td>74301</td><td>Anaglyptus mysticus</td></tr> <tr> <td>72701</td><td>Leptura fulva</td><td>74401</td><td>Lamia textor</td></tr> <tr> <td>72702</td><td>livida</td><td>74501</td><td>Mesosa nebulosa</td></tr> <tr> <td>72703</td><td>rubra</td><td>74601</td><td>Pogonocherus fasciculatus</td></tr> <tr> <td>72705</td><td>sanguinolenta</td><td>74602</td><td>hispidulus</td></tr> <tr> <td>72706</td><td>scutellata</td><td>74603</td><td>hispidus</td></tr> <tr> <td>72707</td><td>sexguttata</td><td>74701</td><td>Leiopus nebulosus</td></tr> <tr> <td>72801</td><td>Judolia cerambyciformis</td><td>74801</td><td>Acanthocinus aedilis</td></tr> <tr> <td>72802</td><td>sexmaculata</td><td>74901</td><td>Agapanthia villosoviridescens</td></tr> <tr> <td>72902</td><td>Strangalia aurulenta</td><td>75001</td><td>Saperda carcharias</td></tr> <tr> <td>72903</td><td>maculata</td><td>75002</td><td>populnea</td></tr> <tr> <td>72904</td><td>melanura</td><td>75003</td><td>scalaris</td></tr> <tr> <td>72905</td><td>nigra</td><td>75101</td><td>Oberea oculata</td></tr> <tr> <td>72906</td><td>quadrifasciata</td><td>75201</td><td>Stenostola dubia</td></tr> <tr> <td>72907</td><td>revestita</td><td>75301</td><td>Phytoecia cylindrica</td></tr> <tr> <td></td><td></td><td>75401</td><td>Tetrops praecosta</td></tr> </table>						71801	Prionus coriarius	73101	Trinophylum cribratum	71901	Arhopalus rusticus	73201	Gracilla minuta	71902	tristis	73301	Obrium brunneum	72001	Asemum striatum	73302	cantharinum	72102	Tetropium gabrieli	73401	Nathrius brevipennis	72201	Rhagium bifasciatum	73501	Molorchus minor	72202	Inquisitor	73502	umbellatarum	72203	mordax	73601	Aromia moschata	72301	Stenocorus meridianus	73701	Hylotrupes bajulus	72401	Acmaeops collaris	73801	Callidium violaceum	72501	Grammoptera holomelina	73901	Pyrrhidium sanguineum	72502	ruficornis	74001	Phymatodes alni	72503	ustulata	74002	testaceus	72504	variegata	74101	Clytus arietis	72601	Allosterna tabacicolor	74301	Anaglyptus mysticus	72701	Leptura fulva	74401	Lamia textor	72702	livida	74501	Mesosa nebulosa	72703	rubra	74601	Pogonocherus fasciculatus	72705	sanguinolenta	74602	hispidulus	72706	scutellata	74603	hispidus	72707	sexguttata	74701	Leiopus nebulosus	72801	Judolia cerambyciformis	74801	Acanthocinus aedilis	72802	sexmaculata	74901	Agapanthia villosoviridescens	72902	Strangalia aurulenta	75001	Saperda carcharias	72903	maculata	75002	populnea	72904	melanura	75003	scalaris	72905	nigra	75101	Oberea oculata	72906	quadrifasciata	75201	Stenostola dubia	72907	revestita	75301	Phytoecia cylindrica			75401	Tetrops praecosta
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ORDER		ISOPODA		GENUS & SPECIES		ARMADILLIDIUM		SUB-SPECIES	
6567		01003		NASATUM		Budde-Lund			
COMPILER			P.T.HARDING			SOURCE (Collection/Reference)			
19			Fid. <input checked="" type="checkbox"/> Mus. <input type="checkbox"/> Lit. <input type="checkbox"/>			National Museum of Ireland, Dublin (NMI. 28. 1938) Pack Beresford Collection			
Grid Reference		V.-C.	Collector/Recorder		Determiner	Locality		Date	
21 / 1 — 7 —		207	R.A. PHILLIPS		P.T.HARDING	TEMPLEMORE		3.9.1922	
32 / 15 — 37 —		221	?		P.T.H.	BOTANIC GARDENS GLASNEVIN DUBLIN		pre 1938	
33 / 5 — 8 —		238	?		P.T.H.	BANGOR		pre 1938	
34 / 1 — 4 —		239	?		P.T.H.	BALLYCASTLE		pre 1938	
33 / 2 — 5 —		238	N.H. FOSTER		P.T.H.	HILLSBOROUGH		pre 1938	
31 / 5 — 7 —		34	H.B. COTT		P.T.H.	BRISTOL		June 1932	
—————		100	A. PATIENCE		P.T.H.	BUTE		pre 1938	

FIGURE 3 GEN 7 card

1. Species List/Field card (RA or RP series) (Figure 2) - contain a partial or complete species list for a taxonomic group. Used to record several species from one site.
2. One Species card (GEN 7 (A5) or GEN 12 (8" x 5")) (Figure 3) - used mainly for abstracting records from museum or private collections and herbaria or from species-based registers and lists.
3. Individual Record card (GEN 8 (A5)) (Figure 4) - used mainly to record a single observation of one rare species. The reverse of the card includes a simple population recording form. The 80 column card sized IRC (pink card) is still available.

All new schemes are adopting these types of cards. Existing schemes using older types of cards will continue to be provided with the relevant cards, although the present One Species cards (GEN 7 and GEN 12) have replaced earlier versions. An "Other Species" card is available for use with schemes where the Species List card does not include all the species found in the British Isles (eg vascular plants); it is available in two sizes - 8" x 5" (GEN 10) and A5 (GEN 9).

OUTPUT FROM BRC

Output from the BRC data bank and archive is available in a variety of forms. The availability of certain forms is, naturally, subject to some restrictions due to the confidentiality of some records, the magnitude of the request and the need of the requester for the information, etc. Requests for copies of "all the ... records held by BRC" are not uncommon. If it is for records of only one species, this may be possible; if it is for all the records of Carex species or of butterflies, it is unlikely to be possible unless there is a justifiable need for the information. Each request is assessed on its merits, and we hope that most reasonable requests are answered to the satisfaction of the requester. Much time could be spent merely re-cycling data when our main objective at present must be to accession new data.

Distribution maps

Maps are currently available via the line-printer at Monks Wood or the FR80 at the Rutherford/Appleton Lab. Line-printer maps are distorted but provide a useful draft for checking and initial assessment of the data used. The FR80 maps (Figure 1) are camera-ready and suitable for reproduction. Both maps show records by the 10 km squares of the National Grid in Great Britain and the Irish National Grid. It is possible to produce line-printer maps of 50 km square and vice-county records. Both the line-printer and the FR80 are able to use a variety of symbols, most commonly to distinguish date periods of records.

FIGURE 4 GEN 8 card

ORDER VASC. PLANT		GENUS & SPECIES CAREX MAGELLANICA Lam. 4 0 3 (= C. PAUPERCULA)										SUB-SPECIES										
VICE-COUNTY CUMB.		LOCALITY BUTTERBURN FLOW										ALTITUDE m.										
V.-C. No.		7 0		GRID REFERENCE						3 5 6 6 2 7 6 6		STATUS		NAT	INT	ESC	MIG	CAS	UNK	ALTITUDE ft.		
RECORDER/COLLECTOR D.A. RATCLIFFE										DATE OF RECORD 6 8 1 9 5 5					COMPILER D.A.R.							
DETERMINER D.A.R.										DATE OF DETERMINATION 6 8 1 9 5 5					DATE OF COMPILATION 2 7 1 0 1 9 7 8							
STAGE							HOST/FOODPLANT					HABITAT					ASPECT					
Ova	Nymph	Skin	♂	♀	Seed-ling	FL.						Sphagnum soak in blanket bog.					SLOPE					
Larva	Pupa	Skel	♀	Adult	Juv	Veg														Fr		
SOURCE Field record										COMMENTS First post 1930 record												

Listings

Theoretically, listings of records can be produced in any combination of the principal components of a record: Species/Grid reference/Vice-county/Date/ Locality. In practice, as work on a data set is completed, the records are listed by species (in grid reference sequence), by 10 km squares (as a sequence of species records arranged by dates) and by vice-counties (in grid reference and then species sequence). A few listings by sites have been prepared but only on an experimental basis.

Publications

Numerous atlases of distribution maps have been published by BRC, ITE or other publishers using maps prepared by BRC. The format is probably familiar now to most naturalists in the British Isles. ITE continues to publish provisional and "final" atlases which are available for sale from ITE Headquarters, 68 Hills Road, Cambridge CB2 1LA. Increasingly, these atlases include more than just distribution maps; brief commentaries on the maps, describing, for example, the habitats of species and distribution outside the British Isles, are now seen as essential. Recent examples (Elliott & Tullett, 1982; Ing, 1982; Seaward & Hitch, 1982; and Heath, Pollard and Thomas, in press) have developed the idea of commentaries to maps introduced by Perring & Sell (1968), Harding (1976) and Sharrock (1976).

Other types of publications which make use of data held by BRC have concentrated mainly on distribution maps. However, in recent years several people have worked on data, including analytical work on data for Orthoptera and butterflies. For example, Milligan (1983) used approximately 10,000 records of Orthoptera to examine various statistical techniques applied to habitat and geographical data..

Users

Apart from the general and wide use of BRC distribution maps, what other uses of data and users are there?

Nature Conservancy Council - NCC supports BRC as a national centre for holding information on species distribution and occurrence. Through the present 3-year contract (April 1982-March 1985), NCC provides approximately 1/3 of the running costs of BRC. Under the contract BRC carries on its main data collection and processing, but is also committed to develop means of providing NCC with data which can be related to statutory conservation sites.

Other Nature Conservation bodies - There is little evidence of extensive use by, for example, the voluntary nature conservation bodies. As BRC's ability to produce site-related data improves, it is probable that its data will become of increasing use to anyone wishing to know "what species occur at this site?".

Research - Professional and amateur research workers and students make considerable use of data held by BRC (see above). Whilst we are happy for this use to take place, it can be time-consuming and relatively unproductive for BRC. One of ITE's main interests in BRC's data for the future will be their use with other data sets on, for example, land use, geology, soils and climate. Also, with sufficient historical information, it will be possible to use BRC data to examine changes in the flora and fauna over time.

General enquiries - BRC is used as a source of information, often of a fairly general nature, by a wide variety of organisations, including the media, and by individuals. Operating an information bureau can be time-consuming but is rewarding, and clearly fills a need.

THE NATIONAL BRC AND LOCAL RECORDS CENTRES

Since the publication of the Handbook for Biological Records Centres (Flood & Perring, no date), several new local centres have been set up. The flow of data, from recorders in the field to local centres, the national recording schemes and the national centre, outlined in Handbook has rarely operated satisfactorily. BRC has changed considerably and is now able to undertake a wider range of operations.

A joint Biology Curators' Group/Biological Records Centre survey of local records centres was conducted in 1980 (appendix to BCG Newsletter Vol 2 No 8), the results of which were summarised by Harding & Greenwood (1981) and Greenwood & Harding (1982). A comprehensive survey of species recording schemes in local biological records centres was made by Whiteley (1983).

BRC has been host during the last few years to visitors from several local centres seeking either advice on recording systems and BRC's own operation or records, mainly from our archives. We have been very pleased to help our colleagues from local centres and look forward to continued and hopefully closer co-operation.

However, it is clear that a fresh dialogue on biological recording is necessary; BCG is planning a conference for local centres later this year.

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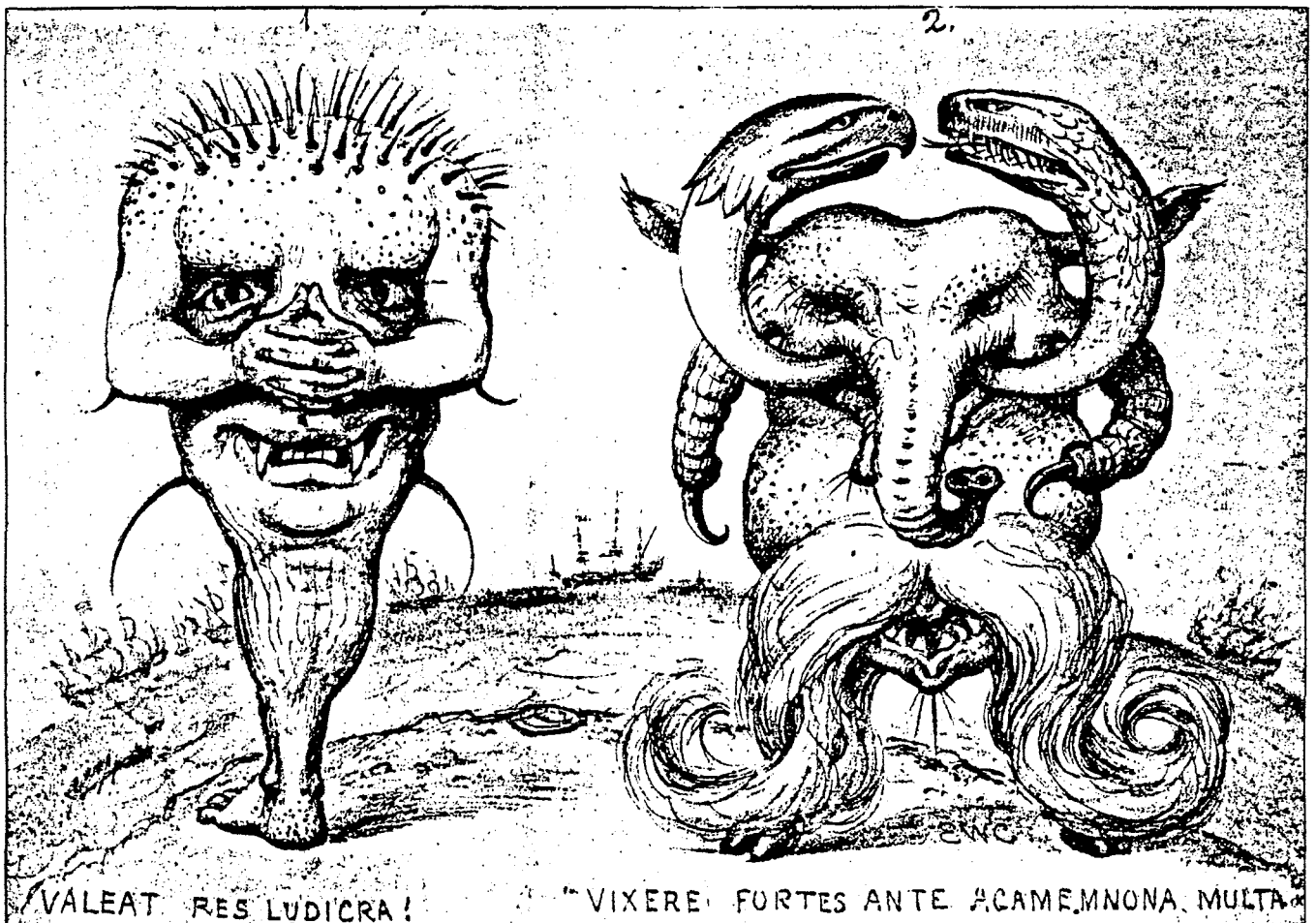
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1985 Diploma Practical Questions!

(E.W.Cooke, Grotesque Animals, 1872)

NATIONAL BIOLOGICAL RECORDING SCHEMES

BIOLOGICAL RECORDS CENTRE

Institute of Terrestrial Ecology, Monks Wood Experimental Station,
Abbots Ripton, Huntingdon, Cambs. PE17 2LS
Telephone: Abbots Ripton 381

PLANTS - BRC co-ordinator: Mr C D Preston

MYXOMYCETES - Slime moulds

Dr B Ing, Chester College, Cheyney Road, Chester, Cheshire CH1 4BJ

DIATOMS

Dr R W Battarbee, Department of Geography, University College, 26 Bedford Way,
London WC1H 0AP

MARINE ALGAE - Seaweeds

Professor T A Norton, Department of Marine Biology, Port Erin, Isle of Man.

CHARACEAE - Stoneworts

Mrs J Moore, Botany Dept, British Museum (Natural History), Cromwell Road,
London, SW7 5BD

LICHENS

Dr M R D Seaward, Postgraduate School of Studies in Environmental Science,
University of Bradford, Bradford BD7 1DP

BRYOPHYTA - Mosses and Liverworts

Dr A J E Smith, British Bryological Society, Dept of Botany, University
College of North Wales, Bangor, Gwynedd LL57 2UW

VASCULAR PLANTS - Flowering Plants and Ferns

Botanical Society of the British Isles, c/o Mr D A Wells, Nature Conservancy
Council, Godwin House, George Street, Huntingdon, Cambs. PE18 6BU

MARINE INVERTEBRATES - BRC co-ordinator: Mr H R Arnold

PROTOZOA - Marine Dinoflagellates

Dr J D Dodge, Dept of Botany, Royal Holloway College, Huntersdale, Callow
Hill, Virginia Water, Surrey GU25 4LN

POLYZOA - Bryozoa

Dr P Hayward, Dept of Zoology, University College of Wales, Swansea SA2 8PP

MOLLUSCA - Marine Molluscs

Mr D R Seaward, 3 Summerlands, Yeovil, Somerset BA21 3AL

CRUSTACEA: MALACOSTRACA

REPTANTIA - Marine Crabs

Dr R Ingle, Dept of Zoology, British Museum (Natural History), Cromwell Road, London SW7 5BD

ISOPODA - Marine Isopods

Dr R J Lincoln, Dept of Zoology, British Museum (Natural History), Cromwell Road, London SW7 5BD

ECHINODERMATA - Echinoderms

Dr A J Southward, Marine Biological Association of the United Kingdom, The Laboratory, Citadel Hill, Plymouth PL1 2PB

TERRESTRIAL & FRESHWATER INVERTEBRATES

BRC Co-ordinators: Mr P T Harding & Mr B C Eversham

PLATYHELMINTHES: TURBELLARIA: TRICLADIDA - Freshwater Flatworms

Dr L S Bellamy, Gloucester City College of Technology, Brunswick Road, Gloucester GL1 1HU

MOLLUSCA - Non-marine Molluscs (Snails and Slugs)

Dr M P Kerney, Conchological Society of Great Britain and Ireland, c/o Dept of Geology, Imperial College, Prince Consort Road, London SW7 2AZ

ANNELIDA: OLIGOCHAETA - Freshwater Oligochaetes

Mr R W Martin, Severn-Trent Water Authority, Minworth Laboratories, Kingsbury Road, Minworth, Sutton Coldfield, West Midlands B76 9DP

DIPLOPODA - Millipedes

Mr D T Richardson, 5 Calton Terrace, Calton Road, Skipton, N. Yorks BD23 2AY

CHILOPODA - Centipedes

Mr A D Barber, Dept of Science & Mathematics, Plymouth College of Further Education, Kings Road, Devonport, Plymouth PL1 5QG

EPHEMEROPTERA - Mayflies

Dr S P Nicholls, 8 Fairacre Close, Purdown, Lockleaze, Bristol BS7 9TW

ODONATA - Dragonflies & Damselflies

Mr R Merrett, 48 Somersby Avenue, Walton, Chesterfield, Derbyshire

ORTHOPTERA - Grasshoppers & Crickets
DERMAPTERA - Earwigs
DICTYOPTERA - Cockroaches

Mr E C M Haes, 45 Grove Road, Worthing, Sussex BN14 9DQ

HEMIPTERA:

AQUATIC HETEROPTERA - Water bugs

Mr J H Blackburn, Freshwater Biological Association, River Laboratory,
East Stoke, Wareham, Dorset BH20 6BB

AUCHENORHYNCHA - Leafhoppers and froghoppers

Dr W J Le Quesne, Anne Cottage, 70 Lye Green Road, Chesham, Bucks HP5 3NB

(HETEROPTERA STUDY GROUP - Mr B C Eversham, c/o Monks Wood Experimental
Station, Abbots Ripton, Huntingdon, Cambs. PE17 2LS)

NEUROPTERA - Lacewings
MECOPTERA - Scorpion-flies
MEGALOPTERA - Alder-flies and Snake-flies

Dr M A Kirby, Towneley Hall Art Gallery & Museums, Towneley Hall, Burnley,
Lancs. BB11 3RQ

COLEOPTERA - Beetles

CARABIDAE - Ground beetles

Dr M L Luff, Dept of Agricultural Biology, The University, Newcastle-
upon-Tyne NE1 7RU

AQUATIC COLEOPTERA - Water beetles

Dr G N Foster, Balfour-Browne Club, 20 Angus Avenue, Prestwick, Ayr KA9 2HZ

ELMIDAE - Riffle beetles

Mr D G Holland, North West Water Authority, Rivers Division, c/o
P O Box 12, Warrington WA1 2QG

STAPHYLINIDAE - Rove beetles

Mr P M Hammond, Dept of Entomology, British Museum (Natural History),
Cromwell Road, London SW7 5BD

ATOMARIINAE & PTILIIDAE

Mr C Johnson, Dept of Entomology, Manchester Museum, The University,
Manchester M13 9PL

COCCINELLIDAE - Ladybirds

Mr J Muggleton, MAFF, Slough Laboratory, London Road, Slough, Berks.
SL3 7HJ

ELATEROIDEA - Click beetles

Mr H Mendel, c/o The Museum, High Street, Ipswich, Suffolk IP1 3QH .

CHRYSOMELIDAE - Leaf beetles

BRUCHIDAE - Pulse beetles

Dr M L Cox, Commonwealth Institute of Entomology, Dept of Entomology,
British Museum (Natural History), Cromwell Road, London SW7 5BD

CERAMBYCIDAE - Longhorn beetles

Mr J Cooter, 222 Whittern Way, Tupsley, Hereford HR1 1QP.

ELM SCOLYTIDAE - Elm bark beetles

Bark Beetle Research, c/o Dr C P Fairhurst, Dept of Biology, University
of Salford, Salford M5 4WT

TRICHOPTERA - Caddisflies

Dr I D Wallace, Keeper of Invertebrate Zoology, Merseyside County Museums,
William Brown Street, Liverpool L3 8EN

LEPIDOPTERA - Moths and butterflies

RHOPALOCERA - Butterflies

Mr R D Sutton, The British Butterfly Conservation Society, 19 Corner
Close, Wellington, Somerset TA21 8QE

OECOPHORIDAE

Mr M Hadley, Nature Conservancy Council, 19/20 Belgrave Square,
London SW1X 8PY

INCURVARIIDAE and HELIOZELIDAE

Dr K P Bland, 35 Charterhall Road, Edinburgh EH9 3HS

MICROPTERIGIDAE and ERIOCRANIIDAE

Mr J Heath, 104 Needingworth Road, St Ives, Huntingdon, Cambs
PE17 4JY

DIPTERA - Flies

Co-ordinator of the Central Panel of Diptera Recording Scheme Organisers:
Mr A E Stubbs, Nature Conservancy Council, 19/20 Belgrave Square, London
SW1X 8PY

TIPULOIDEA & PTYCHOPTERIDAE - Craneflies

Mr A E Stubbs (as above)

DIXIDAE - Meniscus midges

Dr R H L Disney, Field Studies Council, Malham Tarn Field Centre,
Settle, North Yorkshire BBD24 9PU

CULICIDAE - Mosquitoes

Dr N R H Burgess, Dept of Army Preventive Medicine, Royal Army Medical
College, Millbank, London SW1P 4RJ

LARGER BRACHYCERA - including Horseflies, Robberflies, Beeflies
and Soldierflies

Dr A G Irwin, Natural History Department, Castle Museum, Norwich,
Norfolk NR1 3JU

SYRPHIDAE - Hoverflies

Mr P F Entwistle, NERC Institute of Virology, Mansfield Road, Oxford
OX1 3SR

CONOPIIDAE

Mr K G V Smith, Dept of Entomology, British Museum (Natural History),
Cromwell Road, London SW7 5BD

SEPSIDAE

Mr A C Pont, Dept of Entomology, British Museum (Natural History),
Cromwell Road, London SW7 5BD

SCIOMYZIDAE - Snail-killing flies

Dr I F G McLean, Nature Conservancy Council, 19/20 Belgrave Square,
London SW1X 8PY

SIPHONAPTERA - Fleas

Mr R S George, 8 St Peter's Street, Duxford, Cambs. CB2 4RP

HYMENOPTERA

ACULEATA - Solitary and Social Wasps, Bees and Ants

Mr G R Else, Dept of Entomology, British Museum (Natural History),
Cromwell Road, London SW7 5BD

CRUSTACEA

CLADOCERA - Water-fleas

Mr J Hearn, 3 Waverley Way, Carshalton Beeches, Surrey SM5 3IQ

ISOPODA - Non-marine Isopods (Woodlice and Water Slaters)

Mr G D Fussey, Biology Dept, Repton School, Repton, Derby DE6 6FH

ARACHNIDA

PSEUDOSCORPIONES - False scorpions

Dr G Legg, The Booth Museum of Natural History, Dyke Road, Brighton,
Sussex BN1 5AA

OPILIONES - Harvestmen

Mr J H P Sankey, 3 Glenrose, Old London Road, Mickleham, Dorking,
Surrey RH5 6BY

ARANEAE - Spiders

Dr P Merrett, British Arachnological Society, c/o Furzebrook Research
Station, Wareham, Dorset BH20 5AS

ACARI: METASTIGMATA - Ticks

Mr K P Martyn, Dept of Zoology, British Museum (Natural History),
Cromwell Road, London SW7 5BD

TARDIGRADA - Tardigrades

Dr M D Hooper, Monks Wood Experimental Station, Abbots Ripton, Huntingdon,
Cambs. PE17 2LS

VERTEBRATES - BRC co-ordinator: Mr H R Arnold

AGNATHA AND PISCES - Lampreys & Freshwater fish

Mr M P Langhelt, 31 Nant Fawr Crescent, Cyncoed, Cardiff CF2 6JN

AMPHIBIA AND REPTILIA - Amphibians and Reptiles

Mr H R Arnold, Monks Wood Experimental Station, Abbots Ripton, Huntingdon,
Cambs. PE17 2LS

AVES - Birds

British Trust for Ornithology, Beech Grove, Tring, Herts. HP23 5NR

MAMMALIA - Mammals

Mr H R Arnold, Monks Wood Experimental Station, Abbots Ripton,, Huntingdon,
Cambs. PE17 2LS

December 1983

Local Record Centres and the BRC - Co-operation or Conflict? (WAEly)

Anyone working in a Local Records Centre (LRC) will have realised that the Biological Records Centre (BRC) has been shifting its ground for several years as it responds to the greater flexibility and capacity of computer technology. The previous role of mapping 10 km square records in large date classes has been replaced by an emphasis on precisely located and precisely dated site records. The latest manifestation of this increasing refinement is the Butterfly Card which requests details of site ownership, management and status. While I thoroughly approve of BRC using biological data as a resource for research into our wildlife I do wonder if the LRC's have any part to play in this vision of BRC's role.

When BRC was collecting records on 10 km squares over large date classes there was ample scope for an LRC to fill in the fine details for its own county or district and update the BRC file as necessary. We had the warm, cosy glow of knowing that we were playing our part in the great adventure of plotting the detailed distribution of our natural heritage. I accept that BRC's activities at that time were very wasteful of the computer's abilities and, indeed, hardly needed a computer at all. I also accept that in today's harsh economic climate BRC has to justify its existence, and the present emphasis on precise records makes better use of computer technology and provides a more valuable resource for NCC and other users. Unfortunately, in reducing (removing?) the role of LRC's in this process, BRC has made it more difficult for us to justify our existence. BRC may be a small fish in a big pond but it is a National Body, and our co-operation with it added to our prestige.

There are a number of practical drawbacks in this enhanced activity of BRC, and I feel that the LRC's could play a part in overcoming them. My own data bank deals only with the Rotherham area, less than three 10 km squares in extent, and as such is one of the smallest in the country. Yet I find it too large to cover in the kind of detail I should like. No site receives the concentrated year round study which is necessary to discover which species occur there and how their populations are behaving, and a comparatively small number of them are visited in any one year. While the coverage for birds and flowering plants is now quite good the other groups are in a pretty rudimentary state - very few sites have more than 500 species of invertebrates recorded. It is completely beyond my comprehension how a national recorder hopes to keep track of every site in Britain! Does Tony Irwin really want to know of every place where I have taken the dung-breeding soldier fly Chloromyia formosa and every date on which I find it, and does Howard Mendel desperately wish to hear of every record of the click beetle Athous haemorrhoidalis? I doubt it. The recent literature from the Butterfly Recording Scheme indicates that the rare and uncommon species are of particular interest, as one would expect, and the recorder is presumably not interested in discovering every site in Britain for the Meadow Brown and Large White. For these a 10 km square and wide date class are sufficient, so that attention can be concentrated on the species that actually need it. I would suggest that the LRCs could play a useful role in cutting down the work of the national recorders and, therefore, preventing a duplication of effort. I would suggest that a circular to the LRCs asking for a detailed report on the status of a particular species or genus, perhaps in the form of a questionnaire, would give the national recorder more (and better) information than the present system.

Part of the justification of BRC's present position is that it enables it to build up species lists for sites of conservation significance. This would ring more true if BRC were alone in this field and if it dealt with all groups of animals and plants. Not only do LRCs keep site lists but many other organisations do (or should do) - National Trust, County Conservation Trusts, NCC, local societies, etc. I would expect these other bodies to be more efficient at collecting data on their own sites than BRC is. BRC deals with only a part of our wildlife, totalling about 15,000 taxa (I would say only 15,000 taxa). Its site lists will not have records of Aphids, Ichneumons, Soil Mites, Earthworms or Fungus Gnats and so cannot claim to be comprehensive. An LRC's data bank can have these groups represented and should be able to supply information on them. Is this uneven coverage the reason why NCC has felt it necessary to set up its own Invertebrate Site Register?

Those of you who are interested in the Diptera will be familiar with Henry Disney's views on the necessity for objective assessments of sites. Many SSSI's have been designated on the recommendation of one or two individuals interested in one aspect of natural history. A site designated for its botanical interest may also be of considerable entomological interest, but it may be less valuable in this respect than a nearby site. LRCs are in the best position to collect data on all the woods, marshes, grasslands, etc. in their area and, therefore, make a more objective assessment possible. It should be an accepted fact that LRCs should be actively collecting this data rather than merely acting as a repository for other people's work.

I feel that LRC's can make a valuable contribution to national recording as well as fulfilling an essential local role, but we do need fairly detailed instructions from the centre. There is little point in us developing our data banks in ways which are incompatible with BRC's requirements, but at the moment we have little idea what these are. The national schemes are encouraging their contributors to deal directly with them and a great deal of local information is being lost to the LRC's. We are told that this data is available and we can always go and extract it, but this is not good enough. Would a national recorder be very grateful for a suggestion such as "I have plenty of information about the wildlife of our district/county and there may be some records of bees/craneflies/ ladybirds/dragonflies. You are welcome to come and see". We should be willing to supply information to the national recorders (though not, as I have indicated above, to the extent of rendering ourselves redundant) and in return we should expect them to keep us updated with records which they receive. If the computer cannot do that automatically then it really isn't trying very hard!

In summary, do LRCs have a role to play in the national recording networks, and if so how can we co-exist with BRC to our mutual benefit? If not, where do we go from here?

Bill Ely,
Clifton Park Museum, Rotherham.

A LIST OF BIRDS WITH KNOWN FEATHER COLOURANT SYSTEMS

P.J. ASHLEY and C.V. HORIE
Conservation Department, The Manchester Museum.

A review of the accessible literature has enabled the compilation of the following extensive (though probably incomplete) list of birds for which the feather colourant system has been described. The birds are grouped according to feather colour, which in most cases refer to specific areas of the plumage rather than the overall colour of the bird. It is likely that the colours referred to apply primarily to male birds.

Two major systems are responsible for feather colouration, structural effects and pigments. Structural effects are those which cause interference of light (iridescence) or scattering of light (Tyndall scattering). The pigments found in feathers fall into a limited range of chemical classes; carotenoids, porphyrins and melanins. For a full explanation of animal colourant systems consult Fox and Vevers (1960) or Fox (1976).

Tyndall scattering, which causes blue colouration, frequently occurs in combination with other colouring methods. In the list, Tyndall colours have been used to describe in shorthand such combinations, and are defined as follows:-

Tyndall Blue:	Tyndall Scattering	alone
Tyndall Purple:	" "	combined with a red pigment 'filter'
Tyndall Green :	" "	" " a yellow " "
Tyndall Brown :	" "	" " a melanin "
Tyndall Grey :	" "	modified by powder on feather surface

Whereas Tyndall colours are caused by the superimposition of different colourant systems, apposition colours result from the close proximity within the feather of different colours. For example, melanin in the barbule and yellow pigment in the barb gives an olive-green appearance to the feather.

In the cases where pigments are solely responsible for the colouration of feathers, only those examples where the nature of the pigments is known are included in this list.

Each scientific name is followed by the appropriate reference number(s). Scientific and vernacular names follow Walters (1981).

<u>Colourant System</u>	<u>Scientific Name</u>	<u>Vernacular Name</u>
PURPLE		
Tyndall Purple	<u>Nyctiornis amicta</u> [1]	Red-Breasted Bee-Eater
" "	<u>Chlamydera</u> spp. [1]	Bowerbirds
" "	<u>Paradisaea decora</u> [1]	Goldie's Bird of Paradise
Apposition (see footnote i)	<u>Psittacula cyanocephala</u> [1,18,21]	Plum-Headed Parakeet
Carotenoid	<u>Poephila gouldiae</u> [7,14]	Gouldian Finch
"	<u>Eurylaimus</u> spp. [1]	Broadbills
"	<u>Cotinga</u> spp. [1]	Cotingas
BLUE		
Tyndall Blue	<u>Colius macrourus</u> [1]	Blue-Naped Mousebird
" "	Paridae [1]	Tits (Blue Tit)
	(e.g. <u>Parus caeruleus</u>)	

<u>Colourant System</u>	<u>Scientific Name</u>	<u>Vernacular Name</u>
BLUE (cont.)		
Tyndall Blue (cont.)	<u>Paradisaea rudolphi</u> [1]	Blue Bird of Paradise
" "	<u>Pteridophora alberti</u> [1]	King of Saxony Bird of Paradise
" "	<u>Coracina azurea</u> [1]	Blue Cuckoo-Shrike
" "	<u>Garrulus glandarius</u> [1]	Common Jay
" "	<u>Corythaeola cristata</u> [1]	Great Blue Turaco
" "	<u>Hypothymis</u> spp. [1]	Blue Monarchs
" "	<u>Coua caerulea</u> [1]	Blue Coua
" "	<u>Alcedo atthis</u> [18]	Common or Little Blue Kingfisher
" "	<u>Melopsittacus undulatus</u> [18]	Budgerigar
" "	<u>Cyanocitta cristata</u> [22]	Blue Jay
" "	<u>Irena puella</u> [22]	Fairy Blue Bird
" "	<u>Passerina cyanea</u> [22]	Indigo Bunting
" "	<u>Trichoglossus</u> spp. [22]	Lorikeets
" "	<u>Pitta</u> spp. [22]	Pittas
" "	<u>Poospiza thoracica</u> [22]	Bay-chested Warbling Finch
" "	<u>Passerina ciris</u> [22]	Painted Bunting
" "	<u>Sialia</u> spp. [22]	Bluebirds

GREEN

Tyndall Green	<u>Ptilinopus</u> spp. [1]	Doves or Fruit Pigeons
" "	<u>Picus</u> spp. [1]. (e.g. <u>P. viridis</u>)	Woodpeckers (Green Woodpecker)
" "	<u>Cochoa viridis</u> [1]	Green Cochoa
" "	<u>Malaconotus</u> spp. [1] (e.g. <u>M. gladiator</u>)	Shrikes (Green-breasted shrike)
" "	<u>Coraciidae</u> [1]	Rollers
" "	<u>Momotidae</u> [1]	Motmots
" "	<u>Cissa chinensis</u> [21]	Green Magpie
" "	<u>Ara ararauna</u> [22]	Blue and Yellow Macaw
" "	<u>Poospiza thoracica</u> [22]	Bay-chested Warbling-Finch
Porphyrin	<u>Tauraco</u> spp. (except <u>T. leucolophus</u>) [14,23]	Turacos
" "	<u>Musophaga</u> spp. [14,23]	Turacos
Carotenoid	<u>Somateria</u> spp. [1]	Eiders
" "	<u>Nettapus</u> spp. [1]	Pygmy Geese
" "	<u>Rollulus rouloul</u> [1]	Roulroul Partridge - female only

OLIVE-GREEN

Apposition (see footnote ii)	<u>Aegithina tiphia</u> [1]	Common Iora
	<u>Carduelis chloris</u> [21]	Greenfinch

YELLOW-GREEN

Apposition (see footnote iii)	<u>Treron</u> spp. [1]	Green Pigeons
Carotenoid	<u>Zosteropidae</u> [1]	White Eyes
	<u>Chlorospingus pileatus</u> [20]	Sooty-Capped Bush Tanager

<u>Colourant System</u>	<u>Scientific Name</u>	<u>Vernacular Name</u>
YELLOW		
Carotenoid	<u>Serinus canaria</u> [15]	Canary
"	<u>Colaptes auratus</u> [15]	Common Flicker
"	<u>Poephila gouldiae</u> [7,14]	Gouldian Finch
Phaeomelanin	<u>Gallus gallus</u> [21]	Domestic Fowl - chicken down
SCARLET YELLOW		
Carotenoid	<u>Ramphocelus</u> spp. [4,15]	Tanagers
ORANGE-RED		
Carotenoid	<u>Rupicola peruviana</u> [18]	Peruvian cock-of-the-rock
RED		
Porphyrin	Musophagidae [21,23,26]	Turacos
Carotenoid	<u>Bombycilla cedrorum</u> [6,15]	Cedar Waxwing
"	<u>Ptilinopus</u> spp. [21]	Doves or Fruit Pigeons
"	<u>Poephila gouldiae</u> [7,14]	Gouldian Finch
SCARLET RED		
Carotenoid	<u>Piranga ludoviciana</u> [4]	Western Tanager
"	<u>Piranga flava</u> [4]	Hepatic Tanager
"	<u>Piranga olivacea</u> [3]	Scarlet Tanager
"	<u>Endocimus ruber</u> [11,14,15]	Scarlet Ibis
PINK		
Carotenoid	<u>Phoenicopterus roseus</u> [13,14,15,17]	Rosy or Greater Flamingo
"	<u>Phoenicopterus chilensis</u> [13,14,15,17]	Chilean Flamingo
"	<u>Phoenicopterus ruber</u> [13,14,15,16]	Rosy or Scarlet Flamingo
"	<u>Phoenicoparrus andinus</u> [13,14,15,16]	Andean Flamingo
"	<u>Phoenicoparrus jamesi</u> [13,14,15,16]	James' Flamingo
"	<u>Phoeniconaias minor</u> [13,14,15,17]	Lesser Flamingo
ROSE PINK		
Carotenoid	<u>Ajaia ajaja</u> [12,14,15]	Roseate Spoonbill
PINKISH BROWN		
Apposition (see footnote iv)	<u>Fringilla coelebs</u> [18]	Chaffinch - male only

<u>Colourant System</u>	<u>Scientific Name</u>	<u>Vernacular Name</u>
BROWN		
Porphyrin	<u>Strix</u> spp. [5]	Owls
"	<u>Lophotis</u> spp. [5]	Bustards
Tyndall Brown	<u>Psitttrichas fulgidus</u> [9]	Pesquet's Parrot
" "	<u>Merops apiaster</u> [1]	European Bee-eater

FAWN GREY

Apposition (see footnote v)	<u>Parus palustris</u> [18]	Marsh Tit
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GREY

Tyndall Grey	Columbidae [21] (e.g. <u>Columba livia</u>)	Pigeons (Feral Pigeon)
" "	Gruidae [21] (e.g. <u>Grus grus</u>)	Cranes (Grey Crane)
Apposition (see footnote vi)	<u>Coracina</u> spp. [1] (e.g. <u>C. polioptera</u>)	Cuckoo-Shrikes (Lesser Cuckoo-Shrike)
" "	<u>Parula</u> spp. [1]	Parulas
" "	<u>Melopsittacus undulatus</u> [18]	Budgerigar

BLACK OR DARK BROWN

Eumelanin	<u>Corvus</u> spp. [21] (e.g. <u>Corvus corone</u>)	Crows (Carrion Crow)
"	<u>Turdus merula</u> [21]	Blackbird

BLACK

Eumelanin	<u>Musophaga</u> spp. [23]	Turacos
"	<u>Poephila gouldiae</u> [7]	Gouldian Finch

Colourant System : Iridescence (Various Colours)

<u>Scientific Name</u>	<u>Vernacular Name</u>
Meliphagidae [1]	Honey-eaters
<u>Paradisaea decora</u> [1,24]	Goldie's Bird of Paradise
<u>Nectariniidae</u> [1]	Sunbirds
<u>Plegadis</u> spp. [1]	Ibises
<u>Trogonidae</u> [1,8]	Trogons
<u>Hagedashia hagedash</u> [1]	Hadada
<u>Lamprotornis</u> spp. [1]	Glossy Starlings
<u>Theristicus caudatus</u> [1]	White-throated Ibis
<u>Upupa epops</u> [1]	Hoopoe
<u>Trochilidae</u> [1,19]	Humming Birds
<u>Chrysococcyx</u> spp. [1]	Cuckoos
<u>Hirundo rustica</u> [1]	Swallow
<u>Psophiidae</u> [1]	Trumpeters
<u>Phalacrocoracidae</u> [1]	Cormorants

Colourant System: Iridescence (cont.)

<u>Scientific Name</u>	<u>Vernacular Name</u>
<u>Philomachus pugnax</u> [1]	Ruff
<u>Cissopsis leveriana</u> [1]	Magpie-Tanager
<u>Rhinoptilus</u> spp. [1]	Courser
<u>Ptilorhynchus violaceus</u> [1]	Satin Bowerbird
<u>Probosciger alterrimus</u> [1]	Palm Cockatoo
<u>Phasianus versicolor</u> [1]	Green Pheasant
<u>Phasianus colchicus</u> [1]	Ring-necked Pheasant
<u>Teripsiphone</u> spp. [1]	Paradise Flycatchers
<u>Vanellus vanellus</u> [1]	Common Lapwing
<u>Dicaeum</u> spp. [1]	Flower-peckers
<u>Chloroceryle</u> spp. [1]	N. and S. American Kingfishers
Icteridae [1]	Icterids, American Orioles, Cowbirds
<u>Parus melanolophus</u> [1]	(Vigor's) Black-crested Tit
<u>Pitta</u> spp. [1]	Pittas
<u>Coa caerulea</u> [1]	Blue Coa
<u>Lophophorus</u> spp. [22]	Monal Pheasants
<u>Aix sponsa</u> [22]	Wood Duck
<u>Cairina moschata</u> [22]	Muscovy Duck
<u>Columba livia</u> [22]	Feral Pigeon
<u>Pavo cristatus</u> [22]	Indian Peafowl (Peacock only)
<u>Phaps chalcoptera</u> [22]	Bronze-winged Pigeon
<u>Ptilinopus pulchellus</u> [22]	Crimson-capped Dove
<u>Ptilinopus magnificus</u> [22]	Magnificent Dove
<u>Paradisaea rubra</u> [22,24]	Red (King) Bird of Paradise
<u>Polyplectron bicalcaratum</u> [22]	Grey Peacock Pheasant
<u>Butorides virescens</u> [22]	Green Heron
<u>Anas platyrhynchos</u> [22]	Mallard (Drake only)
<u>Chrysolophus pictus</u> [22]	Golden Pheasant
<u>Melagris gallopavo</u> [22]	Common Turkey
<u>Sturnus vulgaris</u> [22]	Common Starling
Galbulidae [22]	Jacamars

Colourant System : Iridescence superimposing Tyndall colour

<u>Pitta</u> spp.[1]	Pittas ('Mother of Pearl' iridescence)
<u>Pipra</u> spp.(e.g. <u>P.iris</u>)[1]	Manakins(Opal Manakin)('M of P'irid.)
<u>Tanagra seledon</u> [1]	Celadon or Green-headed Tanager ('Gold Texture' iridescence)

Colourant System : Iron Oxide on Feathers (Red, Brown)

<u>Pelecanus onocrotalus</u> [2,10]	Great White Pelican
<u>Gypaetus barbatus</u> [2]	Lamergeier or Bearded Vulture

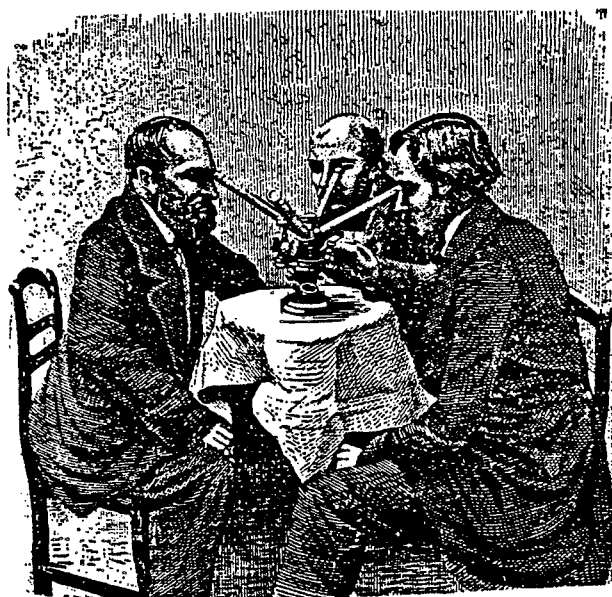
Footnote

- (i) Tyndall Blue barbs and carotenoid-red barbules.
- (ii) Eumelanin (black) in barbule tips and yellow pigment in barbs and bases of barbules.
- (iii) Probably Tyndall Blue in barbules and yellow pigment in barbs.
- (iv) Pheomelanin (light brown?) pigmented areas of feather close to unpigmented (white) areas.
- (v) Pheomelanin (yellow?) in barbs and eumelanin (black) in barbules.
- (vi) Eumelanin (black) pigmented areas of feather in close proximity to unpigmented (white) areas.

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BIG BROTHER IS WATCHING YOU !

THE NATIONAL BUTTERFLY MUSEUM SALE

This took place on 26th and 27th October 1983 at Sotheby's in London. Surprisingly most lots achieved sale prices far in excess of those estimated. Some archival material sold for ten times its estimated value!

A walnut-faced cabinet containing fifteen drawers of rare British butterflies was sold for over £10 000 to an unknown private buyer.

There were two interesting aspects to the sale from the museum viewpoint. Firstly the star billing of type specimens. Ian Wallace of Merseyside noted 17 species represented by co-types, 22 by paratypes and 15 by holotypes or allotypes.

Secondly the Special Note reproduced below concerning trade in protected species. Do they really add nothing to the value of a lot?

The sale put an end to the controversy concerning the use of the words 'National' and 'Museum' as far as this institution (or whatever) is concerned, but I wonder what damage the wide publicity will have done to the image of museums in the eyes of the public. Certainly all national media coverage which I heard, saw or read never seemed to question the fact that there was a museum selling off its collections to the highest bidder.

SPG

BRITISH BUTTERFLIES AND MOTHS

Special Note: The recent Wildlife Protection Act contains certain provisions relative to butterflies and moths. Apparently these have not all been implemented but for the present purpose the National Butterfly Museum assumes that these are in full force and therefore makes the following statements:-

1. Any specimens of protected insects in the museum collection were taken or obtained in all cases in the years before the provision of such protection - in most cases the insects are anything from 20-120 years old!
2. Notwithstanding this, any such specimens of butterflies, moths, etc., contained within the lots offered for sale are deemed not to form part of that lot for sale purposes or valuation, such specimens being regarded in the nature of a gift by the museum to any other museum, or responsible individual, who shall purchase any such lot. In all cases where such insects might be present they would form a relatively minor addition and cannot therefore be regarded as an inducement to purchase any given lot.
3. The acceptance of the above by the purchaser(s) of such lots is deemed a special condition of sale.

Unlike the previous article on this topic, my comments on botanical journals can be neither objective nor unbiased. As a taxonomic botanist, I'm aware that many 'local' journals have difficulty in attracting the type of article which advances our knowledge of a group. This is odd, because many similar journals published in continental Europe have a much less parochial attitude to taxonomic articles. For a curator working in Britain, however, some of our journals are essential reading, and it is these which I will dwell upon.

There are a few journals whose subscriptions put them outside the reach of the average impoverished natural history department, but which may be found in a public library. Of these, only the extremely wealthy library is likely to be able to afford KEW RECORD (annually) and its sister publication INDEX KEWENSIS (five-yearly) which are the definitive source of literature references to articles in which new species or new combinations are published. Index Kewensis has only recently started to include information on infraspecific taxa, and covers seed-bearing plants only: conifers are included, ferns are not. A cheaper and more cheerful way of keeping up to date is to subscribe to the KEW CURRENT AWARENESS BULLETIN (monthly) which is a cyclostyled update of references extracted for the Kew Record.

Although pricey, TAXON is well worth an institutional subscription, as it confers membership of the International Association of Plant Taxonomists with a 50% discount on their publications (small ones free). As these include Stafleu & Cowan's Taxonomic Literature, handbooks such as Index Herbariorum, the quarterly Taxon is a welcome bonus. The News & Notes section, and the book reviews, are topical and amusing, and while the heavyweight sections are often a little too Numerical and/or Hennigian for my taste, the remaining parts keep one in touch with herbarium developments and even mention the occasional job.

Many relevant botanical journals are published by societies and are free to members, so it pays to join the body rather than to subscribe to the journal. The Botanical Society of the British Isles, membership of which ought to be compulsory for all museums with herbaria, publish WATSONIA approximately twice a year, as well as an interesting NEWSLETTER and a rather less compelling set of ABSTRACTS yearly. The newsletter, known as BSBI NEWS, appears roughly three times a year and is essential reading for alien-lovers. Watsonia contains the major scientific articles; some, regrettably, adopt a species concept which is so narrow as to make Linnaeus turn in his grave. Note that his Species Plantarum contains but ten species of Rubus - but then what is a species? Watsonia also gives a summary of new vice-county records, over which a controversy has recently re-erupted with some botanists arguing that the vice-county system is obsolete in these days of computerised square-bashing. Finally, the book reviews are essential reading for those of us who are striving to build up a comprehensive collection of local Floras.

No botanical curator can ever neglect the cryptogams without suffering periodic bouts of anxiety (usually coinciding with the arrival of a lichen or toadstool at the desk). In descending order of primitiveness, we have the FERN GAZETTE; published annually by the British Pteridological Society; the BRYOLOGICAL JOURNAL, from the British Bryological Society; the JOURNAL OF PHYCOLOGY (algology to the uninitiated), and TRANSACTIONS OF THE BRITISH MYCOLOGICAL SOCIETY, together with the LICHENOLOGIST which is published annually by the British Lichen Society. Which to take depends on one's interest, as well as the strengths of the collection one curates - it's hard to justify taking every one. My personal preference is for the Journal of Bryology, which comes with the BULLETIN of the B.B.S. (twice a year). Any curator with a consuming interest in lichens will find articles of interest

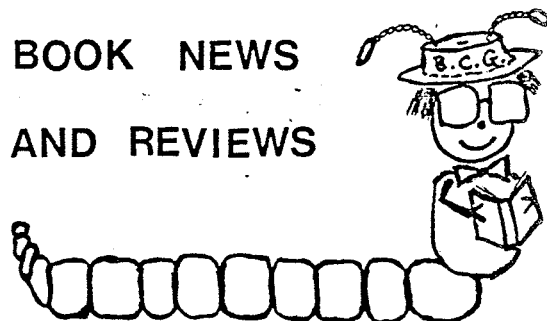
in The Lichenologist, while a subscription to SEaweeds OF THE BRITISH ISLES (not strictly a journal, but published in parts at irregular intervals by the B.M.N.H.) will assist in the curation of a collection of marine algae.

Thankfully, seaweeds have escaped the clutches of the vice-county system. I wonder sometimes what the term 'vice-county' conveys to a non-biologist - misunderstandings might arise, as in the case of a book incautiously entitled "The Hookers of Kew" which attracted a number of orders from Adult bookshops in the United States.

Turning to journals with a regional bias, one finds that most cover natural history as a whole rather than just botany, and thus fall outside the scope of this article. The TRANSACTIONS OF THE BOTANICAL SOCIETY OF EDINBURGH, however, is strictly botanical though by no means confined to the region of Edinburgh. Its editors are fortunate, perhaps, that Scotland provides nearly half the land area of Great Britain and well above half its most interesting habitats; the Transactions are very broad-minded when publishing ecological or pollen-historical papers. Also worth looking out for is GLASRA, appearing annually from the National Botanic Garden at Glasnevin, Dublin, which is available on exchange and carries articles of interest to curators with significant Irish collections. (See also the IRISH NATURALISTS JOURNAL, and NATURE IN WALES.) Readers will be far more familiar than I on the characteristics of their local natural history or botany journal, so I propose to omit any further reference to these.

Lastly, we turn to the dregs. Chief among these is the X.X.X. N.....r (I dare not mention its name in full !) whose chief value is in lulling the reader to sleep. There are, it is alleged, still a few adherents to a W... F..... Society who as botanical "twitchers" pursue obscure Norse Mythological targets such as Valhalla. If I might end on a serious note, we are fortunate to have a wealth of botanical journals in Britain whose future increasingly depends on sustaining a viable print run. As curators, we can assist their survival by collectively ensuring that our institution's subscriptions are maintained.

BOOK NEWS AND REVIEWS



Geology in Museums: a bibliography and index
by Tom Sharpe
1983

National Museum of Wales, Cardiff; 128pp. Price £2.50 (£3.70 by post)

Over one thousand references relating to geology in museums have been listed by computer with the assistance of the Museums Documentation Association. A keyword index has also been produced which includes cross references to institutions, techniques and museological references. The characteristics associated with machine processing are evident. For example the "anon" papers appear between Messrs. Annenkova and Aprodov rather than at the front as is more traditional. This method has reduced costs to a very reasonable level but without loss of quality in production. The type face is clear and the whole is stitched in eight sections so should withstand average use. It would be worthwhile getting this book bound to last longer. It clearly has a place in every museum library and at its exceptionally reasonable price should be popular with individual curators, trainees and students of natural history in general.

S = JAMES = S SHEALS

Naturalist & Taxidermist

THE STORY OF VICTORIAN AND EDWARDIAN TAXIDERMISTRY

by Marshall McKee

207mm x 260mm (8 $\frac{1}{8}$ " x 10 $\frac{1}{4}$ "), 72pp, 11 colour and 27 b & w illustrations.
Ulster Museum publication no. 253.

When I first handled a copy of this publication with its skin-textured cover and full colour illustration of what is probably the Sheals family's most famous set piece - A Bearded Vulture, wings outstretched attacking a wild cat, I felt like the man holding a bottle of Croft Original sherry "instinctively knowing that the contents would be right".

Written by Marshall McKee this booklet was produced in conjunction with his very successful exhibition on the same subject held in the Ulster Museum last year.

It begins with a brief history of the Art of Taxidermy up to the Victorian era which sets the scene for a well-illustrated, amusing and often touching account of the lives and achievements of the Sheals family, a prime example of the right people being in the right place at the right time.

James Sheals established the family business in 1856, a time when taxidermy was given a powerful boost through the interest engendered by the Great Exhibition at Crystal Palace in 1851. With the assistance of two of his sons, Alfred and Thomas, the Sheals family achieved a reputation for artistic taxidermy throughout the world. Their story is told with both humour and scholarship ably complimenting the interests and skills of a family whose work must rank amongst the very best taxidermy produced during this era.

It tells of Pallas's Sandgrouse, the dangers of keeping Bitterns in captivity, the thriving climate for taxidermy at the turn of the century when over 300 specimens were mounted annually and the trials and tribulations of dealing with natural history material without refrigerators or fast transport. The text is throughout the book dotted with well-chosen illustrations of the work and times of the Sheals family.

There are over 800 specimens in the Sheals collection at Ulster Museum and a complete list is included at the end of the publication with documentation thorough enough to bring a blush to my cheeks.

Chapter III deals in some depth with those specimens of particular ornithological importance recorded by Sheals, many of which are in the collections of Ulster Museum. Indeed the naturalist's skills are apparent in James Sheals' ability to recognise a Ferruginous duck "picked out in a poulterers shop next door to ours". This rare species having never before been recorded in Ireland.

Alfred Sheals is justly recognised as the most artistically talented of the family producing not only exquisitely mounted birds but also a series of very fine scale models of mammals which he refused to allow for commercial production though later giving examples away to friends. He was also a

regular contributor to the 'Nature notes of the Northern Whig'. Chapter IV concentrates on the rare birds recorded by him together with extracts of his prizewinning publications submitted to this journal.

Having seen the original exhibition I would have been more than satisfied with this account of the Sheals business. Marshall McKee however went one step further and cleverly wove around the Sheals family core the story of the development of Victorian & Edwardian taxidermy. To assist him with this work he solicited the help of Pat Morris, an acknowledged authority in this field. This help is reflected in Chapter V of the booklet entitled 'Victorian Taxidermy in Britain'. It ranges from the detective story of The Duchess of Richmond's parrot (need I say more), through the Great Exhibition of 1851 and the work of John Hancock of Newcastle-upon-Tyne, and traces the evolution of taxidermy techniques by firms such as Rowland Ward and Edward Gerrard. British taxidermy's brief love affair with anthropomorphic work is discussed as well as the fashionable period when most middle class homes used mounted specimens as domestic decoration.

Never one to miss the opportunity to peel the scale from unseeing eyes Pat Morris reopens the discussion on the Hastings Rarities, ticks off tickers, puts the Health & Safety Executive in its proper place and bravely sticks up for the taxidermists of the past who in his opinion had as much responsibility for decimating bird & mammal species as undertakers have for the death of their clients.

His contribution ends, appropriately enough for a work on taxidermy with a tale, a glimpse of which I will give you in the obituary to one of the famous dogs stationed at Paddington in London:

Tim,
Our pet we may still gaze upon
Though dead, like life in form & limb
For what he died at Paddington,
Now Rawland Ward is Padding Tim

This publication never set out to be a definitive account of Victorian and Edwardian taxidermy, which it is not, but it does point out the areas which are well worth our further attention and concern if we are to preserve a rich and always interesting period in the history of natural history collections.

My congratulations to those involved with such an entertainingly written and excellently produced publication - a fitting tribute to the artistic talents of a remarkable family. I warmly recommend it to anyone interested in the quality of both natural history preparations and publications.

R. Hendry

"I am beginning my research; what shall I do with my geological specimens?" A note of advice.

S. P. Tunnicliff, 1983 (NERC)

This 16 page booklet, available through G.C.G. has now been produced. The guide lines are in order to assist researchers in deciding how to go about ensuring that the products of their work are permanently preserved (where appropriate). The suggestions are common sense and clearly laid out. The whole is necessary in order to have relatively formal procedures for the deposition and/or transfer of these collections to museums. Then, in theory, they are safe from the vagaries of changing departmental policy in those universities which do not have their own museum provision.

An interesting idea is for museums, having been contacted in advance of the proposed study, to give the research student an accession number which they can put on each specimen and label and use for cataloguing. This obviously reduces the work load of the recipient curator. Belabouring the necessity for full and proper labelling is obviously productive. Too many times it is not stressed and even today most geological collections omit the collector's name from labelling apparently as a matter of no interest.

Now that NERC/SERC have agreed in principle to the concept of collections which have been acquired during work granted by them finding a permanent home in museums, there is clearly a need for similar sets of instructions and advice aimed at botanists and zoologists as well.

E. G. Hancock

Entomology - a guide to Information Sources

by Pamela Gilbert & Chris. Hamilton (1983)

Mansell Publishing Ltd. 237pp. £18.

This guide is intended to assist entomologists, librarians and information officers in finding a wide variety of sources and services relating to the subject and its prosecution. Curators of natural history museums could be included on this list. The general headings are on history, social connections (e.g. insects in art and literature), identification, collections, literature, societies and miscellaneous services such as translations, beekeeping, etc.

For specific information on identifying individual families, genera, etc., of insects on a world wide scale, the reader is naturally directed to specialised guides for that purpose. The Systematics Association's "Key Works" and the relatively new Animal Identification guides published by the BM(NH) are designed for just this purpose. For the British Isles more entries are given to identification references. However, the publications of the British Entomological and Natural History Society are not referred to here. It is interesting to note that most countries of the world have their national "Faunas". There is the Faune de France, Die Tierwelt Deutschlands, Fauna Japonica, etc., but what happened to ours? Has British compromise by which some works are published by Societies or government agencies, privately published and commercial ventures by amateur and professional alike, achieved the goal? We still have some groups for which keys are unavailable. Because the references in this section are arranged by countries there are a few anomalies. Whereas the "Moths of America north of Mexico, including Greenland" is given, there is no mention of "Microlepidoptera Palaearctica" or "Die Fliegen der Paläarktischen Region".

The section on "Entomological Suppliers" rather surprisingly includes Flatters and Garnett Ltd who went out of business in 1966. However, their stock-in-trade and trade-marked products were taken over by GBI Laboratories Ltd who still operate in Manchester though they advertise themselves on a very low key. A more upsetting omission is the lack of reference to the work of the Collection Research Units. The section on location of collections includes Sherborn, Chalmers-Hunt, Horn and Kahle but nothing of recent developments in this field. Under the heading of collection, curation and preservation, Wagstaffe and Fidler is by far the oldest reference of the ten given. (Although it is listed as published in 1970, this is only the latest reprint of the 1955 edition, unrevised. For some reason they are credited with three volumes on the preservation of natural history specimens though I know of only two). This reinforces the need for an update of curatorial techniques to be published.

I think I shall use this book on many occasions, for my own purposes and to answer enquiries from the public. Museums with natural history collections will probably find it a useful addition to their library.

E. G. Hancock.

A Provisional Atlas of the Amphibians and Reptiles of Essex.

Essex Biological Records Centres Publication No. 2.

Size A4. 38pp. Published by Passmore Edwards Museum (Romford Road, Stratford, London E15 4LZ) at £1.00 plus 30p postage.

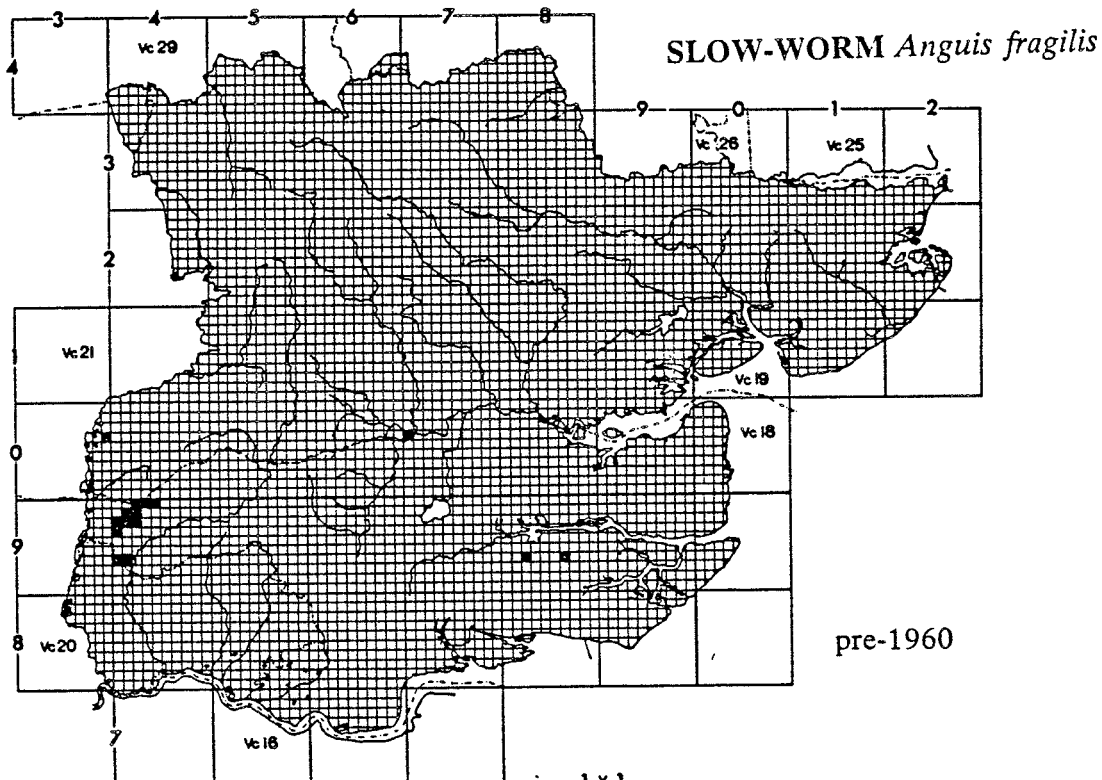
Maps of all native species found in Essex, plotted on 1km. and 10km. squares for three date bands, pre-1960, 1960-1979, and 1980-1983, plus composite maps for Edible Frog, Marsh Frog, Unidentified Newts, Spotted Salamander, Terrapins, Green Lizard, Tesselated Snake, Texan Garter Snake. Supportive text for each species, includes some interesting snippets of information in addition to notes on status, distribution and references. Amongst the introductory paragraphs are interesting sections on Fossil Records, Conservation and a well-researched bibliography.

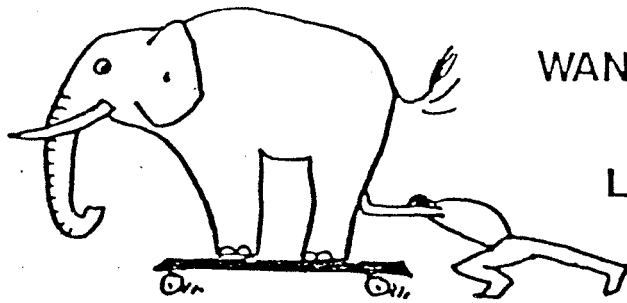
Some minor criticisms. The base maps are a little on the heavy side and one has to try hard to distinguish some isolated dots from the general background. My personal preference is to miss out the 1 kilometre grid at publication stage, leaving a county outline with watercourses etc., superimposed by a 10 kilometre square grid. This gives a 'cleaner' map. Nevertheless, it is good to see a county publication using 1km. squares as the basic unit.

The only part of the county which is adequately covered is the south-west corner, around Epping Forest; so that even a widespread species such as Common Frog has a rather biased distribution map. However, the authors are aware of this problem, and one of the main aims of this publication must be to stimulate further recording throughout Essex.

The standard of presentation is very high; apart from the above comment the publication is well printed on glossy paper, very readable and well worth £1 to anyone interested in reptiles and amphibians or the natural history of Essex.

D.W.





WANTS, EXCHANGES,

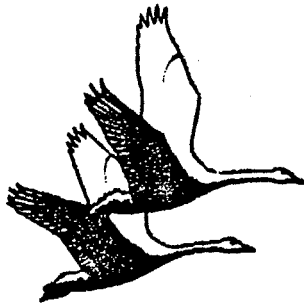
LOST & FOUND

Aberrations of Waterfowl and Wildfowl

I am writing and illustrating a book on the aberrations of waterfowl and wildfowl. The biggest difficulty is locating specimens of the type I seek to illustrate. This is done from coloured photographs, skins and field notes.

I would be grateful if curators who have any such specimens could contact me. For this reference work to be most use it is the intention to record and illustrate as many aberrant forms as possible. I am already receiving much help and information from Wildfowl Associations and the Game Conservancy, from this country and abroad.

G. R. McLaughlin,
8 Riverside,
Par Farm,
Par,
Cornwall.
PL24 2AE



THE WILDFOWL TRUST

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SLIMBRIDGE

GLOUCESTER GL2 7BT

Telephone: Cambridge (Glos.) (045 389) 333

Cables: Wildfowl Dursley

In connection with a study of the past distribution of geese in Europe, Dr Malcolm Ogilvie of the Wildfowl Trust, Slimbridge, Gloucester, is seeking information on the whereabouts of specimens of Barnacle Geese Branta leucopsis and Brent Geese Branta bernicla. While the location of all specimens is of interest, he would particularly like to examine any Barnacle Geese taken on the Solway Firth, on the Scottish-English border, before 1940, and any Brent Geese collected by A. Trevor-Battye on Kolguev Island, USSR, in 1894. All information will be gratefully acknowledged, and, it is hoped, followed up with visits.

(Dr M.A. Ogilvie)

THE MANCHESTER MUSEUM

The University
Manchester
M13 9PL
England

Telephone
061-273 3333
Telegrams
Museum, University
Manchester

Director
Alan Warhurst BA FSA FMA

Our reference

Your reference

Date 30th November, 1983

The deterioration of natural history material has been little studied. There are few anecdotal descriptions of problems and solutions. Examples where anecdote has been disproved are pyrite disease and Bynes disease, not diseases but chemical reactions. In order to discover the type and extent of deterioration, a start was made some years ago in following the fading of feathers due to light exposure. Also of interest is the deterioration of materials due to fumigants. The investigation of these problems usually requires facilities beyond that of a museum and I was fortunate to catch the interest of the university departments of Textile Science at UMIST and Sheffield. They will facilitate the use of student projects to study the problems.

The first step is to have known materials to work with. Accordingly a list of bird's feathers with known colourants has been drawn up (see Ashley and Horie; this issue of BCG Newsletter). A search is being made by various zoological gardens for a supply of the appropriate coloured feathers from live or recently dead birds. Material from museum collections is needed for comparison. Any specimens from the list would be most gratefully received.

In future years the work will be extended to other materials and other problems.

Yours faithfully,



C. V. Horie
Keeper of Conservation

Information sought on Lieut. L.A. Box and the whereabouts of his collections

References in entomological journals (listed below) indicate that Lieut. L.A. Box assembled a collection of Hymenoptera probably from Leicestershire and Surrey localities around 1920.

The biographical details so far uncovered show that he moved from Great Glen, Leicester to Croydon in 1919 and was elected to membership of the South London Entomological and Natural History Society in that year. He exhibited a collection of Chalcids to the Society in 1919 but does not appear to have published articles in their Proceedings. Membership lists give London and Shere (near Guildford) addresses but there are no entries after 1928.

If any museum has holdings of L.A. Box's collections, particularly of Leicestershire material, please contact: Mary Hider, Biology Section, Museum and Art Gallery, 96 New Walk, Leicester LE1 6TD. Tel. Leicester (0533) 554100.

Published references

- BOX, L.A. (1918) Notes on Collecting; *Diomorus armata*, *Crabro clavipes* and *Homalus auratus*.
Entomologist's Rec. J. Var. 30 : 189-190
- " (1919) Some aculeate Hymenoptera from Leicestershire
Entomologist's Rec. J. Var. 31 : 15-16
- " (1919) Tubulifera from Leicestershire in 1918
Entomologist's Rec. J. Var. 31 : 76
- " (1921) New Species of *Myrmecophilus* Hymenoptera-Proctotrypoidea
Entomologist's Rec. J. Var. 33 : 15-17
- " (1919) *Crabro capitosus* Schuck in the Midlands
Entomologist's mon. Mag. 55 : 17-18
- " (1919) Hibernating *Andrenas*
Entomologist's mon. Mag. 55 : 89
- " (1921) On *Phaenoserphus levifrons* Förster (Proctotrypoidea)
Entomologist's mon. Mag. 57 : 92
- " (1921) *Gronotoma nigricornis* Kieffer (Cynipsoidea), a British Insect.
Entomologist's mon. Mag. 57 : 186

H. M. Customs and Excise

H. M. Customs have various zoological specimens in their possession, which have been seized as illegally imported. These specimens cannot be transferred to other ownership, however they can be used by educational institutions on a long term loan basis. Hence specimens could be available for exhibitions on endangered species etc.

Interested BCG members should write in the first instance to Mrs. Bell (address below), explaining what sort of material they are seeking. It is necessary for H.M. Customs to seek DOE approval to release specimens, but Mrs. Bell will very kindly sort out these formalities.

Some specimens are held in the London Offices of H.M. Customs, but the bulk of the material is at Heathrow and warehouses around the country. However it may be possible for specimens to be viewed at the London office by arrangement.

Contact: Mrs. Bell
H. M. Customs & Excise
Kent House
Upper Ground
London SE1.

It must be stressed that the specimens are not necessarily triumphs of taxidermy, but rather more likely to be tourist trophies, handbags, etc.

P. Wheatcroft.

DIPTERA LABEL LISTS

Bill Ely of Rotherham Museum has produced label lists for the following families of alypterate flies:-

1. Tephritidae.
2. Platystomatidae, Otitidae, Micropezidae, Megamerinidae, Tanypezidae, Psilidae, Helcomyzidae and Dryomyzidae.
3. Chamaemyiidae, Lauxanidae, Coelopidae and Chyromyidae.
4. Heleomyzidae and Sepsidae.

These lists are prepared from the R.E.S.L. checklist with additions and corrections where necessary, and the spacing has been altered to make them more convenient for cutting up into labels. They are produced with the consent of R.E.S.L., who hold the copyright.

If you would like copies of these lists they are available at 10p each + s.a.e. (to take A4 sheet).

JONATHAN SALT (1759 - 1815): CAREX ELONGATA

I am gathering information on Jonathan Salt, the Sheffield naturalist, and would be pleased to hear of any specimens or correspondence in museums and other academic institutions. Amongst other things, I am interested in Salt's correspondents, and in his position in contemporary natural science.

Jonathan Salt discovered Carex elongata in the British Isles, and provided specimens for other botanists. If you have a herbarium with specimens collected ca. 1780-1810, I would be much obliged if you could look at Carex elongata (and any other species you have time for), to see if Jonathan Salt is the collector or otherwise involved.

Tim Riley
Sheffield City Museums
Weston Park
Sheffield S10 2TP
tel. 27226.

BRIGHTON TAXIDERMISTS - A REQUEST FOR INFORMATION

I am collecting information on Brighton Taxidermists particularly the family firms, Pratt & Sons, G. Swaysland and Brazenor Bros., and also E.T. Booth's own taxidermist, George Saville. Any relevant information would be most gratefully received. I would be particularly interested in any signed/attributed specimens or collections by any of the above-mentioned which are housed outside of Brighton.

Jeremy Adams,
Senior Technical Officer,
Booth Museum of Natural History,
Brighton.

Hard-up Curator... wishes to dispose of:-

Biology Curators group Newsletter - complete

unbound set. Nos. 1 to present. A good opportunity for a new member to obtain his/her personal set.

Museums Journal 1975 to present inclusive

(plus Bulletins for the same period, if required)

Reasonable offers accepted. Contact Asst. Editor

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The aims of the Biology Curators' Group are:-

- i) to facilitate the exchange of information between individuals concerned with the management of biological collections and records, their research, conservation and interpretation.
- ii) to present the view of curators of biological collections.

Copy dates for future issues based on three copies per year:

31 August for October issue

31 December for February issue

30 April for June issue

Opinions expressed in this Newsletter are not necessarily those of the Committee of the Biology Curators' Group.

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