

NEWSLETTER

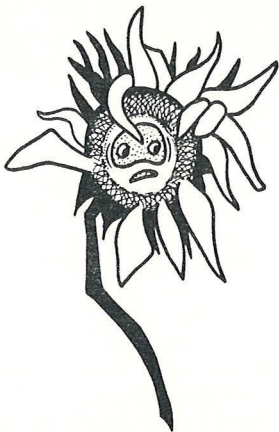


September 1989

Vol 5 No 3

The Sunflower Campaign

OUR DECAYING NATURAL HERITAGE



Biology Curators Group
**SUNFLOWER
CAMPAIGN**

THE SUNFLOWER CAMPAIGN OUR DECAYING NATURAL HERITAGE

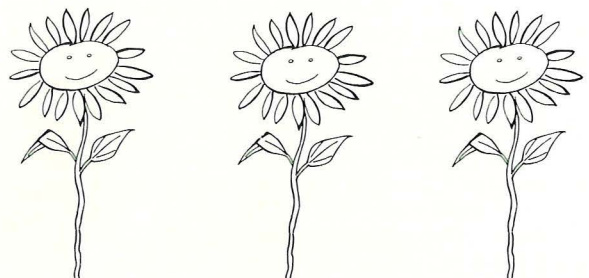
The SUNFLOWER CAMPAIGN is part of BCG's response to the Museums Association report BIOLOGICAL COLLECTIONS UK. It is designed to highlight the inadequacy of funding for biological collections and, by calling on statistics published in the report, to stress the fact that

many unique collections have been lost, are decaying or are at risk through understaffing, poor storage and general neglect.

Two SUNFLOWER CAMPAIGN leaflets are enclosed with this Newsletter. More are available from Derek Whiteley at Sheffield Museum. The campaign is being launched by Derek at the Museums Association Conference in York on September 19th; we hope to have a good audience of councillors and museum directors. We are asking all our members to send a copy of the SUNFLOWER CAMPAIGN leaflet to their governing bodies and museum managers, preferably in time for the Conference launch, but if not as soon after the 19th as possible.

Why a sunflower? Well, in 1987 a vase of them, painted by Van Gogh, fetched 25 million pounds at auction. Our point is that a small bunch of sunflowers, perhaps only two or three, represents sufficient funds to cure the present ills affecting biological collections in provincial museums. We have the will and the expertise to save our natural heritage; what we need now is a sunflower or two to provide the wherewithal - by Van Gogh of course!

John Mathias
Editor



Techniques

PHENOXYETOL: AN UNSATISFACTORY PRESERVATIVE FOR FISHES

The standard procedure for the preservation of fishes in the British Museum (Natural History) collections consists of initial fixation in formalin and subsequent storage in 70% Industrial Methylated Spirit (IMS). However, because of the relatively high rate of evaporation of alcohol and pressure to find a less expensive substitute, some formalin fixed specimens were, in 1965, consigned to tanks containing a 1% solution of 'Phenoxyetol' BPC, in water. Phenoxyetol is the registered trade name for the compound 1-phenoxyethanol. A derivative, propylene phenoxyetol, has the chemical name 1 - phenoxy - propane - 2 - ol. Both are supplied by Nipa Laboratories Ltd., Llantwit Fardre, near Pontypridd, Mid Glamorgan.

Phenoxyetol is immiscible with cold water, so hot water and ethanol respectively were used as mixing agents in attempts to prevent a layer of unmixed Phenoxyetol forming in the water, but without success. Ultimately, the only satisfactory blending agent was found to be propylene glycol (Propane-1, 2 diol or $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{OH}$). The final mixture of 1 part Phenoxyetol : 10 parts propylene glycol : 89 parts water was stirred thoroughly using a power tool. This method was adopted on the advice, and with the help, of the late R H Harris who had achieved good results with invertebrates preserved in this fluid.

The advantages of this mixture over a spirit preservative were thought to be non-flammability and low cost. Phenoxyetol is non-volatile and so specimens are less likely to dry out through evaporation (a constant problem with alcohol) and the fire hazard is removed (flash point of IMS at 95%-by-volume is 10.5°C). The phenoxyetol mixture was reckoned cheaper than an equivalent volume of 70% spirit solution and was used in large tanks of 200 gallons capacity or more, to keep costs down. However, when the figures were recalculated in 1987 it was found that the phenoxyetol preservative then cost 66p per litre, whereas IMS purchased in bulk cost around 60p per litre at 95% strength (as supplied). When diluted to 70% for use in the collections, the cost of spirit is further reduced to 42p per litre. Without the requirements of 100 ml of propylene glycol in every litre, the phenoxyetol mixture would indeed be marginally cheaper than 70% spirit, but

unfortunately propylene glycol was found to be an essential ingredient in making large volumes of the mixture.

H F Steedman (1976 p 180) commented on various phenoxyetol mixtures to be used as preservatives, and on the advantages of including propylene glycol in the mixtures. He reported that propylene phenoxyetol, 1% in distilled water will keep well-fixed material in good condition for three to ten years, or longer, at $10-25^\circ\text{C}$. His experience may have been based largely on planktonic animals. The present note is concerned with the preservation of larger material on a long-term basis.

Various formulae are referred to as 'Steedman's Solution'. H F Steedman (1976 p 80) listed the following formulae for post-fixation preservative solutions.

- 1 1% propylene phenoxyetol in distilled water or sea water
- 2 propylene phenoxyetol, 0.5 ml
propylene glycol, 4.5 ml
distilled water or sea water, 95 ml
- 3 propylene phenoxyetol, 0.5 ml
propylene glycol, 4.5 ml
40% formaldehyde, 2.5 ml
distilled water or sea water, 91.5 ml

Hureau and Rice (1983 p 13) gave 'Steedman's Solution' as that listed at number 3 above (with an extra 1 ml of water to bring the total to 100 ml). They commended it as a preservative.

Lincoln and Sheals (1979) noted that Phenoxyetol BPC may be less efficient as a bactericide and a fungicide than propylene phenoxyetol. A label from part of the batch used in the aforementioned tanks of fishes identifies the fluid used as Phenoxyetol BPC.

S J Moore (1980 pp 385-386) differentiated clearly between 'Steedman's fixative' and 'Steedman's post-fixation preservative'. The fixative formula he gave is similar to number 3 above:

propylene phenoxyetol, 5 ml
propylene glycol, 25 ml
40% formaldehyde solution, 25 ml
distilled water, 445 ml

and he listed the preservative solution as:

propylene phenoxyetol, 5 ml
propylene glycol, 50 ml
distilled water, 445 ml

R H Harris, who worked for many years on the preparation of biological specimens, endorsed the usefulness of Phenoxyetol as a trouble-free fluid preservative provided that it is made up correctly (Harris, 1976). He cited

the method formulated by Steedman, using propylene glycol as a humectant, as the best of over 200 formulae tested.

Harris (1976) made references to the successful results achieved by transferring fishes and other specimens in the British Museum (Natural History) to the phenoxetol solution. For long-term preservation, however, the method has proved unsatisfactory for fishes.

Whereas the fishes in the Phenoxetol tanks were in good condition in 1975 (i.e. after ten years' storage), they were found to have deteriorated seriously by 1979, and we were obliged to remove all specimens from these containers. They had reached various stages of decomposition and in one tank, for example, the pectoral 'wings' of some rays (Rajidae) had completely disintegrated. The tanks smelled strongly of decaying specimens. The deterioration had advanced rapidly in the interval since the last cursory inspection of the tank (one year). It must be emphasised that all these specimens were properly formalin-fixed. We therefore no longer use Phenoxetol in the Fish Section at the British Museum (Natural History), and we cannot recommend its use for similar collections.

The best defence against the effects of vicissitudes in staffing, funding, accommodation, etc, is the use of proven, durable materials wherever possible especially in larger collections where the volume of material poses greater monitoring and curatorial problems.

Unbuffered formalin is considered unsuitable for long-term preservation since it has been reported by various workers in the past to have broken down specimens after many years of storage. It is also known to decalcify fishes. The difficulties of keeping formalin buffered have proved insuperable in a large collection, and there are many problems too in handling this hazardous chemical.

Hureau and Rice (1983) having listed 'Steedman's Solution' made the overall recommendation that specimens be transferred to spirit after formalin fixation. Their approval of alcohol as the best general preservative agrees with the experiences of those working with fishes at the British Museum (Natural History), where an estimated 2.5 million fish specimens are stored, some of them successfully preserved for 200 years.

The Phenoxetols have been noted for various useful properties other than those required for preservation of zoological specimens. They have been

used as relaxing agents and anaesthetics for aquatic animals (Owen, 1955; Bagenal, 1963; Sehdev *et al*, 1963; Hureau and Rice, 1983), in the treatment of fungal fish infections, e.g. fin rot (Rankin, 1952, 1953), and in the prevention of mould growth in stored dye solutions (Owen and Steedman, 1956). There are also important medical applications.

Acknowledgements

Thanks are due to Patrick Campbell, Jennie Cummings, Simon Moore and Alwyne Wheeler for their help.

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AGM 89

MINUTES OF THE ANNUAL GENERAL MEETING
HELD AT DUNDEE MUSEUM ON FRIDAY 19 MAY
1989 at 4.30pm

1 Apologies were received from Adam Wright, Tim Riley, Gordon Reid, Peter Davis, Paul Harding, Geoff Stansfield, Margaret Hartley, Jerry Lee, Willie Milne, Ray Mahoney.

2 Minutes of the 1988 AGM were approved, proposed by Derek Lott, seconded by Geoff Hancock.

3 Chairman's Report. Steve Garland read a report on the Group's activities (to be published in the Newsletter).

4 Secretary's Report. Derek Whiteley read a report on the Committee's activities (to be published in the Newsletter).

5 Editor's Report. John Mathias read the Editor's Report (to be published in the Newsletter).

6 Treasurer's Report. Adam Wright sent copies of the accounts for 1987/88 and 1988/89 for circulation and comments. AGM endorsed the Committee's decision to hold subscriptions at the present rates for a further year. Acceptance proposed by Steve Moran, seconded Paul Richards.

7 Election of Officers and Committee

Officers

Chairman: Steve Garland
Secretary: Derek Whiteley
Treasurer: Adam Wright
Editor: John Mathias

Special Publications

Editor: Gordon Reid
Committee members: Clem Fisher, Kathie Way, Jerry Lee, Willie Milne, Colin Plant, Rosina Down were re-elected unopposed.

Membership Secretary: Kathie Way, proposed by Clem Fisher, seconded by Rosina Down.

Committee

Phil Collins, Steve Moran and Howard Mendel have served three years and retire.

Richard Sutcliffe (Glasgow) proposed Steve Moran, seconded Willie Milne. Alec Coles (Sunderland) proposed Derek Whiteley seconded Steve Garland were duly elected unopposed.

8 Date and place of next AGM. Manx Museum, Douglas, Isle of Man early May 1990 (date to be announced in the Newsletter).

9 There was no other business and the meeting closed at 5pm.

Derek Whiteley
BCG Secretary

CHAIRMAN'S REPORT

It has been another busy year for BCG. On the publications front you will soon receive the first issue of our JOURNAL and two special leaflets on Animal Rights Groups and Collection Disposals. In addition, the Manual of Biological Curatorship is moving forward at last.

Our meetings programme is fairly well filled for the next year or two, although if anyone is keen to organise any others, or has ideas for themes, let the Committee know.

In addition to our previous monitoring of collections at risk this year we have kept detailed records of biology posts lost or created. Please inform the Committee if you hear of any such losses or gains.

Since the publication of the Museums Association's Report, BIOLOGY COLLECTIONS - UK, there has not exactly been a leap in the good fortunes of natural history collections. However, some Area Museum Councils are seriously pursuing the idea of peripatatic biology curators and some money, albeit limited at present, has been forthcoming from the Museums and Galleries Commission. BCG's Sunflower Campaign starts at this AGM.

The Museums Association has organised a meeting of relevant bodies in June to discuss the way forward; BCG will be present and will be pushing hard for resources. We will also be presenting a session at the MA Conference in York in September. However, as always, the final success or failure of this campaign will depend mostly on the support and activity of BCG's membership. The success of the 'Beetle Down ...' campaign is now a matter of record and the Secretary will report further on this.

Steve Garland
Chairman

SECRETARY'S REPORT

It has been an exceptionally busy year for your Committee. We met five times; once at Sheffield Museum, three times at University College, London, and yesterday here in Dundee. Once again, our sincere thanks go to these

institutions for their generous hospitality. In addition, I would like to thank the Director and my colleagues at Sheffield Museum for their support and the resources they have made available to maintain the BCG secretariat.

Another successful AGM was held at Bolton, once again very well attended. The Exeter meeting in the autumn never materialised, owing to a variety of reasons; but this year we can definitely look forward to an interesting seminar in north Devon in October. Details, already finalised, will appear in the Newsletter.

For me, the year was dominated by the Beetle-down campaign and the curatorial course held jointly with GCG at Losehill Hall in October. Seventeen attended (about twice the number expected) and everyone felt that the rather intensive course was successful and should be repeated (with a few modifications). As course organisers, we also learned a great deal; not least of all the problems of organising a course. We can go into the next one with much more confidence. Special thanks, here, are due to Steve Moran for doing the donkey work on the programme and Peter Davis our resident course tutor.

Returning to Beetle-down, an interim report has already appeared in Newsletter 5(2) and we are having another session tonight. For now, suffice to say that the campaign and events have been more successful than we ever imagined. They have really put natural history up front, and we haven't finished yet.

A new campaign 'Our Neglected Natural Heritage' will be launched this evening. This hard-hitting campaign is part of our response to the MA Report 'Biological Collections UK' discussed at our two previous AGMs, and finally launched last August with a fair amount of national press and radio coverage.

The bread and butter work of the Committee continues. We now operate two watchdog schemes; one on collections at risk and a new one on biology posts lost and created. Both will be reported in some detail in future Newsletters, but for now, suffice to say that we have found suitable homes for a number of collections, put pressure on certain authorities to look after their collections, and we have had a limited but definite effect in getting some posts unfrozen or re-established by applying direct pressure to some authorities, and organising lobbying of others. The threat of removal from the Beetle-down 'BCG-accredited' list is quite useful here.

Our relationship with the Natural History Museum, formerly BM(NH), has improved somewhat since our summit meeting in February with Dr Chalmers and his keepers of Botany, Entomology and Zoology. We now have a greater understanding of each other's problems, more NHM staff involvement with BCG, and the possibility of joint meetings, although we beg to differ on certain issues; Kathie Way is the NHM unofficial representative on Committee.

Also, we maintain a useful dialogue with the Museums Association. We have kept the pressure on for curatorial biology to be included in the old-style and new-style Diploma training. We have 90 minute slot at the MA Centenary Conference in York, and we are organising an MA Seminar on Natural History for the Non-specialist Curator in Glasgow in February. Phil Collins has represented our interests on the Specialist Groups Committee, and the MA frequently consult us on biological matters.

We have established contacts with M&GC, the Conservation Unit, Department of the Environment Licensing Section and NFBR - all relevant to the everyday work of natural history curators. Rosina Down and Di Smith maintain close links with the GCG Committee, and both groups exchange minutes.



Finally, my thanks go to all members of a hard-working Committee. We are particularly sorry to be losing Phil Collins, Steve Moran and Howard Mendel; three important members of the team during the past three years.

The year ahead looks even more exciting, even more busy, and we thank you for your continuing support during the coming months.

Derek Whiteley
Secretary

EDITOR'S REPORT

As usual, this report is a mixture of progress and excuses as to why I have not managed to accomplish everything I said I would.

On the positive side, three newsletters were produced during the year, one with as bumper number of pages (the special on the Coventry Seminar). The second of these was fairly late, but that was because I was ill for several weeks during the summer. I have some material for the next issue, but as always, I would welcome more. The Index to Volume 4 is available and was produced by Kathy Way whom I forget to acknowledge on the Index itself. Progress has been made on the MANUAL OF BIOLOGICAL CURATION. Geoff Stansfield has taken over the general editor's role and the brief has been expanded substantially. The revised brief takes on board several suggestions from the Museums and Galleries Commission. Now,

with the backing of M&GC and their support we have approached HMSO to print and distribute the Manual - with every likelihood of acceptance.

Gordon Reid has been overseeing the editing and refereeing of Reg Harris' final work: ZOOLOGICAL PRESERVATION AND CONSERVATION TECHNIQUES, which was received by BCG a few weeks before his death. The editing and typing is about two-thirds complete. The next step is to start applying for grant-aid towards publication.

Now come the excuses. The JOURNAL is making good progress but I regret I was not able to get any printed for the AGM. The last paper is not fully keyed into the word-processor. All the design and planning is complete and the artwork will be produced by DTP - but that isn't proving quite the godsend I expected. Disc preparation is now a major factor and takes considerable time, but this is still faster and much more flexible than conventional typesetting. The JOURNAL will be mailed with the Newsletter.

Copy for the Newsletter and papers for the Journal can now be submitted in machine readable form and details of this will be given in the Newsletter.

Two leaflets: 'ANIMAL WELFARE AND MUSEUMS' and 'DISPOSAL OF BIOLOGICAL COLLECTIONS' are in late stages of production and will be available shortly.

John Mathias
Editor

Collections

THE COLLECTIONS OF THE UNIVERSITY OF LONDON

A report published 1989 by the London Museum Service, compiled by Kate Arnold-Foster.

This report includes collections of all the usual disciplines: Agricultural History, Anthropology, Archaeology, Art, Biology, Geology and History of Science. It reviews the holdings of each of the Colleges; in the case of biology these include Birkbeck, Imperial, King's, Queen Mary, Royal Holloway and Bedford, and University College. Following an assessment of the range of material held in each location is a note on the current use of the collections, their care, storage, staffing, accommodation and future.

The report makes impressive, if distressing reading. Despite a current lack of use and status, a great deal of biological material remains within the college network. The following quote sums up much of what the report has to say:

'In common with university biological collections throughout the country, those that belong to the colleges of the University of London play a diminishing part in the teaching and research of their departments. Recent reorganisation of colleges and schools of the University has already affected the majority of collections. The collections of Bedford and Westfield Colleges have been dispersed and material transferred to Queen Mary and Royal Holloway and Bedford New Colleges. The original museum accommodation at Imperial College has been taken over for other purposes and the collections have been distributed around a variety of stores and laboratories. Finally a large

proportion of the combined Kings and Chelsea College collections have been lost through disposals to other collections and destruction. Today, only one biological collection within the University, the Museum of Zoology and Comparative Anatomy at University College, is in its original home. Yet, in spite of this transformation, it is remarkable that such a significant amount of historically and scientifically important material survives.'

The report also includes a recommendation, because of the scale of the overall holdings, that a single university museum collection for biological material be created to provide appropriate care for specimens of 'suitable quality and value'. This would appear to be a sensible course of action, especially in view of the UGC University Biological Review which is currently in progress and which may well recommend the rationalisation of the teaching of biological disciplines in the London Colleges anyway.

The BCG Committee, through Rosina Down (Curator of the University College collections) has been keeping a watchful eye on these collections, particularly when some were under severe threat; members will be kept informed of any developments arising from the publication of the report.

John Mathias
Editor

USES OF BIOLOGICAL COLLECTIONS - BCG SURVEY

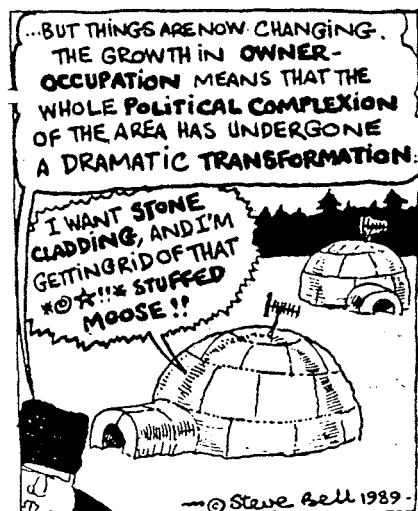
Charles Pettitt at the Manchester Museum is still accumulating information on the many and varied uses of biological collections. One very useful response has arrived from Dr Elaine Hoagland, Executive Director of the Association of Systematic Collections based in Washington quoting US references for published data on this theme.

The importance of Charles' survey was brought home to me at the recent meeting held at the Museums and Galleries Commission on their response to 'Biological Collections UK'. A repeated request from the non-biologists present (and these included most of the people who control money which could be made available for the maintenance of biological collections) was - what is all this stuff used for? We can of course answer this question in general terms, but it is becoming much more important politically to be able to quote facts and figures on these occasions.

This is why it is so important to respond to the survey. When Charles has sufficient data he will prepare a paper for publication. Using the data in a simpler form, BCG can produce a leaflet for general distribution on the value and uses of the collections we spend most of our working lives maintaining. The committee feel that this subject is so significant that a session will be devoted to it at next year's AGM meeting on the Isle of Man.

So please get your acts together and send to Charles Pettitt at Manchester Museum, The University, Manchester M13 9PL, information (facts and figures if possible, if not your impressions and stories) on who uses your collections and what for - serious or trivial, all comments are valuable.

John Mathias
Editor



Interesting note on disposal of biological collections in the Guardian (Steve Bell's If cartoon strip).

RESEARCH INTO SCOTTISH UNIVERSITY COLLECTIONS

The Scottish Museums Council has announced details of a major research project into museum collections owned by Scottish Universities.

There are over 100 collections which were used or are still used for teaching in Scotland's eight universities. A Research Unit has been established to identify and record each collection, assess its importance and recommend possible improvements in its running.

An experienced Project Officer, Laura Drysdale, began the research in October

1988 - six months later she has just completed the first phase of the project. Ms Drysdale has visited all the Scottish Universities and collected the data which will form the basis of the Unit's culminating report in 1990. The collections surveyed include objects ranging from extinct birds from New Zealand to the death masks of Burke and Hare.

The Project Officer believes that University Principals, Courts and Senates are not fully aware of the importance of collections for which they have ultimate responsibility. She said, 'This research has a wider than local significance - the collections constitute an important part of the national heritage.'

Professor Frank Willett, Director of the Hunterian Museum and Art Gallery, University of Glasgow, is Chairman of the project's management committee. He said, 'It is very exciting that this Research Unit is the first of its type in Scotland and is a pilot study for what is intended to be a thorough study of university collections in Britain.'

The total cost of the project is £30,500. It is being funded by Principals of the Scottish Universities, the Carnegie Trust for the Universities of Scotland, the Museums and Galleries Commission, the MacRobert Trusts and the Scottish Museums Council.

For further details contact:

Miss Laura Drysdale
Project Officer
2 Terrets Place
Upper Street
London N1 1QZ

BIRDS' EGGS: 1954 - 1981

We have recently made an interesting discovery concerning the Wildlife and Countryside Act (1981) and the protection afforded to birds' eggs.

There was a recent prosecution in Burnley of an egg collector. The usual low fines were imposed but one thing caught our eye in all of the newspaper reports. All stated that the offender was allowed to keep all of his eggs collected prior to 1981! We thought that this was probably due to confused journalists and thought no more about it.

Shortly afterwards, Bolton Museum received a call from a local man who had been an egg collector and now wished to give his collection to the Museum. When we saw the collection it

contained eggs collected in the 1966 to 1978 period, clearly illegal! Much of the material was of local interest and nearly all had excellent full data.

We contacted the DoE to sort out what we should do. Would there be a prosecution? Would the eggs be destroyed? Imagine our surprise when a phone call informed us that no licence was necessary and we could keep them because they were collected before 1981!!

We would be interested to hear of any other members' experiences in this field. It does seem very odd; a quick look at the 1981 Act clearly shows that the 1954 and 1967 Bird Protection laws still apply.

I am hoping to find out whether this is a DoE policy decision or a court decision but in the meantime it seems that all eggs illegally collected before 1981 have now been legalised.

Steve Garland and Kath Berry
Bolton Museum

Editor's note

Kath wrote to the DoE in Bristol requesting confirmation of the telephone conversation, and the following paragraph is quoted from it (ref WLF 4922/9):

'Under the terms of the Wildlife and Countryside Act 1981 the possession of eggs taken prior to the Act is not illegal and a licence is not required to be in possession, or to give away an egg collection. The Museum are [sic] therefore able to accept the collection without further reserve.'

A further paragraph deals with the question of Schedule 1 eggs in the collection which have no data, and the obligation on the museum to prove that these eggs were collected before 1981 or held legally if collected after 1981.

These waters are definitely muddy, and the BCG committee has decided to hold a Seminar in the winter of 1989-90 to try to sort out some of these difficulties.

John Mathias
Editor

REMINDER

Many members have not yet paid this year's sub. It's the same as last year and includes the Journal, so it must be good value at £6.00 for personal members, £10.00 for institutional and overseas members. Cheques, postal orders, cash, money cowries, wampum, elephant tusks and rhino horns to Adam Wright, Coventry Museum, Jordan Well, Coventry CV1 5RW.

BUTTERFLY SALE - IS IT ETHICAL

Last autumn, Michael Taylor, Keeper of Natural Sciences at Perth Museum, drew the attention of the BCG Committee to the sale of Schedule 5 listed butterflies by Worldwide Butterflies.

The catalogue included 'Large Copper Rarities', 'Extinct English Large Blues' and 'Protected English Swallowtails'. One English Large Copper was offered for sale at £275.00 and 22 Large Blues at prices ranging from £75.00 to £150.00.

A licence was granted by the Secretary of State for the Environment for the sale and the following restriction published.

'RESTRICTION : Only bona fide individuals or institutions actively engaged on the study of the species, will be eligible to purchase. Serious entomological collectors are included.'

'DONATION : Your purchase will benefit the British Butterfly Conservation Society. For each Large Blue purchased we will be forwarding £20 as a donation towards the Society's purchase of Broadfern Reserve, one of the best Swallowtail habitats in Norfolk. The Society's target is £50,000 : anyone wishing to help towards this appeal is invited to send their contribution c/o Robert Gooden, Vice Chairman, at the above address.'

Michael Taylor expressed concern over the apparent ease with which these items were being sold compared with, say, birds eggs and the implications which may be involved with regard to the possible disposal of museum collections.

A letter on behalf of the Committee requesting clarification of the reasons for granting the licence prompted the following reply:

Dear Mr Moran

WILDLIFE AND COUNTRYSIDE ACT 1981
SCHEDULE 5
SALE OF PROTECTED BUTTERFLIES

1. Thank you for your letter and enclosure concerning the sale by Worldwide Butterflies at Sherbourne, Dorset of various butterflies on Schedule 5 of the above Act.

2. A sale licence was issued to Worldwide Butterflies Ltd, to sell or expose for sale, a number of butterflies subject to the conditions normally attached to licences for Schedule 5 species that any sale of the specimens is to 'bona fide scientific or educational institutions or similarly authenticated individuals who

are actively engaged on scientific study of the species'. It is also conditional that the Department is informed in writing of the names and addresses of purchasers within 14 days of any sale of the specimens.

3. I hope this allays any concern you may have over the sale of the items.

Yours sincerely

A J Grant
Endangered Species Branch

This adds very little to what we already know about the sale. Keeping a record of the purchasers' addresses seems to be little more than paying lip-service to the Act. After seeing the reply, Michael Taylor asked - should BCG press to have sales of all Schedule 5 species banned? The Committee would like to know what the membership's thoughts are on this matter.

Letters, please, to the Editor.

Stephen Moran
Inverness Museum and Art Gallery

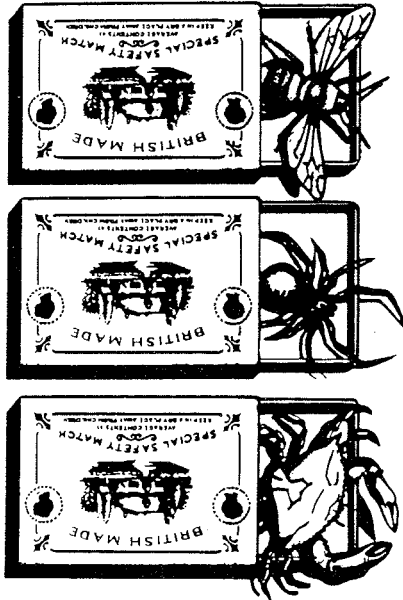
REGISTER OF NATURAL SCIENCE COLLECTIONS IN NORTH WEST ENGLAND (with geographical, subject and associated collector indexes). E G Hancock and C W Pettitt, 1981.

A few more copies of this publication came to light recently during redecoration at the Manchester Museum. They are available for sale at £11, including postage, from C W Pettitt, Manchester Museum, The University, Manchester M13 9PL. Supplies are very limited, so please do not send money with your order, we will invoice you. Requests will be dealt with strictly in the order received. The money raised will go into NWCRU funds.

Exhibitions

NEW EXHIBITION AT NATURAL HISTORY MUSEUM

For anyone that doesn't already know, 'NATURAL HISTORY MUSEUM' is the new name for the BM(NH), and 'CREEPY CRAWLIES - THE GOOD, THE BAD AND THE UGLY' is the title of a new popular exhibition on the invertebrates which opened to the public in late May. I have not seen the exhibition yet, but the press release suggests it covers



'CREEPY-CRAWLIES'
THE GOOD, THE BAD AND THE UGLY.
Natural History Museum

the major invertebrate groups - quote 'Insects, Arachnids (spiders & co.), Crustaceans and Centipedes and Millipedes' treated in a lively and novel way using '14 video shows, hundreds of interactive models and specimens'. There is a six metre high termite mound and a giant model of a swallowtail butterfly. The centrepiece is a full size house within the exhibition, 1 Crawley Place, which illustrates the invertebrates that live in association with Man.

Despite the unfortunate title this seems to be a fun exhibition aimed at introducing visitors to the less well-known animal groups. If any BCG members get the chance to see it in the next few months, perhaps they would like to write down their impressions for the next Newsletter.

John Mathias
Editor

Letters

Dear Sir,

I am working on the life of William Robson, 1805-1865.

Amongst many other outstanding hobbies William Robson had a collection of birds eggs which was so good that many naturalists went to see it.

On his death in 1865 this wonderful collection was passed to a museum. The Natural History Museum, Tring, has recommended I write to you as you are compiling records of collections.

Along with all Robson's other great works it is probable the egg collection was not marked with his name.

I realise this is worse than looking for a needle in a haystack, but I would be grateful if any of your members could tell me if they have any knowledge of Robson's collection.

Yours sincerely,

Mrs J M Ross
10 Penlee Road
Stoke
Plymouth PL3 4AU
Telephone 0752 563910

In the Press

THE LIVING WATERS OF KORUP RAINFOREST

The World Wide Fund for Nature have just published THE LIVING WATERS OF KORUP RAINFOREST by BCG Committee member Dr Gordon Reid of the Horniman Museum, London. This is a preliminary account of the results of a tough, three-month-long, scientific expedition to the steaming jungle of Korup National Park, Cameroon, West Africa. The expedition, organised by the Museum in conjunction with the Cameroonian and British Armies, has drawn a lot of media publicity and there have been colourful articles in a recent issue of GEOGRAPHICAL MAGAZINE and in the latest edition of WWF NEWS. The fact that twenty expedition members contracted a particularly severe form of malaria has also produced comment in the BRITISH MEDICAL JOURNAL!

Reid's formal report, now out, is a hydrobiological survey, with an emphasis on the fish and fisheries of the rivers and streams which flow through the rainforest. As well as highlighting problems in conservation and development, there are interesting accounts of rare and scientifically undescribed species and a wealth of original observations on the complex and unsuspected ecological interrelationships between the rainforest and the life in the rivers which drain it.

The report is called THE LIVING WATERS OF KORUP RAINFOREST, WWF Report 3206/A8:1, 70 pages, 29 colour plates, cost £10, available from The Korup Project Office, WWF (UK), Weyside Park, Godalming, Surrey GU7 1XR.

THE LINNEAN, which is the Newsletter for the Linnean Society of London, carries some substantial articles as well as the news, reviews and coming attractions for Society members. These are often concerned with the history of the Society, biographical snippets on its past members and that kind of thing. In Volume 5 no 1 (January 1989) John Edmondson has written an informative piece on the Bullock family, whose most celebrated member was William Bullock, museological entrepreneur of Birmingham, Liverpool and London (the 'Eggyptian Hall') in the first half of the nineteenth century. As well as describing the flamboyance of Bullock's life the article brings together information on the origins of his specimens (some of which were from Cook's voyages, others early material from Australia) and their dispersal. Essential reading for anyone interested in the history of natural history museums, not least for the comparisons John makes between the entrepreneurial activities of Regency collectors and showmen and those of museum directors today.

John Mathias
Editor

Programme

AUTUMN MEETING IN DEVON

October 26 to 29 at the Hallsannery Field Centre, Bideford, Devon.

Theme: MARINE COLLECTIONS - their care, conservation and importance.

This is the first seminar BCG has held on marine collections, and the first to be held in Devon. The purpose of the seminar is to highlight the importance and value to the scientific community of marine collections - as evidenced by recent water quality surveys, the fragile nature of estuarine ecosystems and the massive expansion in the marine leisure industry.

Materials, techniques and applications from the conservation repertoire will be examined for their value to the care of marine collections - some of these may be new to many natural scientists. The public interest in marine topics (eg whales) and the potential of marine collections for education will also be featured.

A number of excursions to places of interest in Devon have been organised both before and after the seminar.

PROGRAMME

Thursday 26 October Arrive Hallsannery

6.30 Sherry
7.00 Dinner

Friday 27 October

8.00-9.00 Breakfast
9.00-9.15 Introduction
9.15-10.15 Diversity in Marine Collections. Care and Curation of Microscopical Material.
P Boyd, Museums Officer, North Devon Museums Service.
10.15-10.45 Conservation and some useful applications for Biology.
R and H Jaeschke, Conservators, North Devon.
11.45-12.45 Marine Algae and the Collections of the Marine Biological Association.
Dr G Boalch, Bursar, Marine Biological Association, Plymouth.
12.45-2.00 Buffet Lunch and Bar
2.00-3.00 Whales in Devon: the Museum Context.
K Boot, Senior Curator, Royal Albert Memorial Museum, Exeter.
3.00-6.00 Estuary Cruise
6.30-7.30 Dinner
8.00 Guest Evening Speaker
F Ching, Director, Taiwan Museum of Natural History.

Saturday 28 October

8.00-9.00 Breakfast
9.00 Depart Hallsannery to visit the new Museum of North Devon, Branstaple.
12.00 Visit to Braunton Burrows National Nature Reserve.
Introduction by Reserve Warden, J. Breeds.
6.00-7.30 Dinner
8.00 Guest Evening Speaker
Professor R Tait, Marine Biologist.

There is the possibility of a cruise to Lundy Island on MS Oldenburg. Two hour ship time each way, weather dependent. Cost about £10. Thursday 26th from Ilfracombe 10.30 to return about 6pm.

Excursions for Sunday 29 October

Visit and buffet at the Natural History Book Service, Totnes. Mr B Mercer has offered delegates a 10% discount and will arrange to have available for viewing books of special interest. Requests in advance please 0803 365913.

Whale exhibition private view, at Royal Albert Memorial Museum, Exeter.

Totnes and Exeter are on the 125 Intercity train route and linked to M5.

Jerry Lee
North Devon Museum, Barnstaple

CALL FOR PAPERS

BCG Birds' Egg Seminar

BCG Committee is planning a one-day seminar on the use, abuse, ethics, legalities, curation, conservation and display of birds' egg collections, to be held during the coming winter, 1989-90.

Speakers are needed (for 15 to 40 minutes duration) on relevant subjects; alternatively, suggestions of suitable contacts the organisers might approach. We hope to involve the RSPB, BTO AND DoE Licensing Section.

Please contact BCG Secretary immediately with offers or suggestions: Derek Whiteley, Sheffield Museum S10 2TP

Uses of Biological Collections

One of the sessions at the forthcoming Isle of Man AGM in early May 1990 will cover the vital issues involving all uses of biological collections - a topic which needs a good airing and full discussion, if the Group is to justify its campaign for additional resources.

A special invitation goes out to members and friends in Ulster and the Republic of Ireland, who we hope will meet us half-way. The Committee would particularly welcome speakers, visitors and news from both areas.

Please contact BCG Secretary with offers and suggestions: Derek Whiteley, Sheffield Museum, S10 2TP.

AGM 90.  isle of man

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ASCII files are also acceptable. Diskettes will be returned.

John Mathias
Editor

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The views expressed in the Newsletter do not represent the opinion or the policy of the Biology Curators' Group committee or membership except where specifically stated.

Contributions should be sent to the Editor, from whom back numbers are available on request.

Subscription rates are £6.00 for individual membership and £10.00 for institutional and overseas membership. Application forms from the Membership Secretary on request.

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