

# THE LINNEAN SOCIETY OF LONDON

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## THE LINNEAN

### Newsletter and Proceedings of the Linnean Society of London

Edited by B. G. Gardiner

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## Editorial

The Bicentennial Year has finally ended although in September there will be two further symposia relating to our Kimberley research project.

This issue is therefore the first in our new Linnean Year, but sadly it is the last with which John Fiddian-Green will be associated. *The Linnean* was started in January 1984 with John's help and for the past four years he has contributed almost all of the information contained in the Society news and Proceedings; more importantly he has always kept the Editor to the busy publication schedule laid down by Academic Press. We shall miss him greatly, not least for his amusing contributions purposely inserted within the more mundane copy.

## SOCIETY NEWS

### Important Notices

#### *Revision of the Bye Laws*

The work to tidy up and bring the Bye-Laws (1968) up to date has been completed, largely by Drs Keay and Rainbow on behalf of Council.

The most important new matter is the institution of a one year post of President Elect. This effectively brings the routine date of election of the incoming President forward by a year with the great merit of improving continuity.

Fellows will each receive a copy of the revision as endorsed by Council when it met on 24 May 1989, in a routine mailing. To comply with the Charter it will then be necessary to put this revision to the Fellowship at two general meetings and for a ballot for its adoption to be held at the meeting next ensuing. The dates selected are 19 October 1989, 16 November 1989 and 14 December 1989.

#### *Recommendations for Honours and Awards*

We have been reviewing the processes involved in making recommendations, and subsequently in selecting the nominees for the various Society awards which are briefly described in *The List*.

The current practice is that many such recommendations are received up to the turn of the year. They all have to be considered early in January so that the administration can be completed prior to the Anniversary Meeting in May. This includes recommendations for Foreign Membership. However, the increase in the numbers of suggestions and recommendations received recently means that we now need to receive them earlier; and to have each properly documented *prior* to receipt. You will appreciate that, whilst the Medals and Awards Committee is usually very well aware of the general standing of the people whose names are put to it, it cannot necessarily know all their attributes in detail, detail on which at times it may have to make a good judgement. Indeed, supplementary information is occasionally required—and at extremely short notice.

#### *Nominations*

Proforma are available on request from the office for any Fellow to complete and return. In general, every recommendation, each of which should be made on a *separate* sheet please, must be supported by a brief citation, preferably typed, on not more than one side of A4. Please give the full title, all names and the full address; the age (preferably date of birth) of nominees for the Bicentenary Medal and Jill Smythies Award; data concerning the illustrations, when they were published and where, with references, and specify one or two examples which most exemplify the nominee's skill in the case of the Jill Smythies Award. Other papers such as biographical details may of course be attached.

The closing date for the Jill Smythies Award is 29 September. All other nominations should be made by 30 November, a month earlier than heretofore.

### *Foreign Members*

Blank Forms of Recommendation for Foreign Membership are held in the Office and these should be requested so that nominations can be properly filed for assessment as required by the Bye-Laws. They may be rendered at any time although they will only be reviewed annually, in January.

### *Fellows honoris causa*

The category of Fellow *honoris causa*, colloquially known as Honorary Fellow, was introduced with an amendment to the Bye-Laws in 1967, to replace the Associate *honoris causa*. It was necessary to change the title, we understand, as the name Associate seemed, in the modern context, apposite to the new category of younger member which was then to be introduced. The criteria for the recommendation of Fellows *honoris causa* were not changed. However, in the current revision of the Bye-Laws it is proposed in the future to limit the category to people who are British subjects with a right of abode as this will bring it into line with the qualification for Foreign Members as being *not* British subjects. Council wishes to call Fellows' attention to the fact that there have been few if any recommendations in recent years and would be pleased to receive nominations made according to this revised proposition. The procedure is as for Foreign Members (see above). Fellows may rest assured that whilst this notice is written in anticipation of the agreement to adopt the revised Bye-Laws, no action would be taken to contravene the Bye-Laws in force at the time.

Council wishes to make it quite clear that this amendment in no way changes the position of Fellows *honoris causa* who were elected according to the previous regime. They will of course retain their present status, title and privileges.

### *The Jill Smythies Award*

We are delighted that the Jill Smythies Award, in only its second year, is now attracting great interest within the Society. At present there is thus no apparent need to inform outside organizations, let alone to call for artists' applications. However, it is for consideration that young artists, especially those who to date have had few works published, may not yet have been brought to the Committee's attention unless their work is known personally by the Fellowship. It is therefore likely that museums with herbaria, and art galleries which encourage appropriate extra mural activity, may be circulated in due course.

Notwithstanding the above, Council is currently concerned that, with the increase in the numbers of nominations, a longer time and tighter guidelines are needed for the selection process. In particular it appreciates that it is the artists and not the publishers who are being judged and also that the works involved need to be evaluated on technical grounds rather than on pure aesthetic merit. A peer referee panel will therefore be asked for its advice at the second round of consideration at which stage original art work as well as the relevant publications will be available. Also, to balance the time bracket to achieve a necessary degree of experience and competence with the requirement to have had works published by the younger worker, an arbitrary limit of forty is being set as the age beyond which it is unlikely that nominees will be considered. This limit is not immutable and will remain subject to review.

- The programme for the 1990 award is as follows;
- 29 September 1989 Nominations close. Council is aware that for this year time is very short but regrets that late proposals cannot be entertained.
- Early October Preliminary selection panel meets. Short-listed nominees invited to offer the original art work and the published version of an illustration of their choice.
- November/December Selection and peer review panels meet to discuss the shortlist.
- Early January 1990 Medals and Awards Committee meets. Council agrees nomination.
- March Nomination announced in *The Linnean* 6(2).

Fellows wishing to make nominations are asked to note that standard proforma are available in the office. Alternatively, please ensure that each nomination, which should be on one side of a separate sheet of A4, gives the title, full name and address of the nominee and the nominee's age (preferably date of birth). Data concerning the illustrations, when they were published and where, with references, should include one or two examples which most exemplify the nominee's skill.

#### *The Irene Manton Prize*

In *The Linnean* 5(1):5 we told you that Irene had left the residue of her estate to the Society. As you will see in the Proceedings in 6(1) this was well into six figures. To meet her expressed wish that some part shall "provide a prize for the best thesis in respect of a Doctorate of Philosophy in botany", a provisional sum of £25,000 has been accordingly earmarked.

We know, having talked to her about this several years ago, that she intended younger botanists to be recognized and encouraged by an award on similar lines to that open to zoologists in the Thomas Henry Huxley Award made by the Zoological Society. Indeed, there is no doubt at all: she said as much in her Will. In addition, perpetuating both her own keen interest in the arts and her life-long aim of enlightening the uninitiated, she went on to specify the prize to be "a small piece of sculpture or other work of fine art".

Heads of departments in relevant establishments have been circulated with details of how to make recommendations for the inaugural award, due to be decided next January, for presentation on 24 May 1990. The closing date is 29 September 1989. It is possible that, until we establish a pattern and procedure, there may be inadvertent gaps in the distribution. If you are in a relevant post and have not yet received the papers, or might know of colleagues who may possibly not yet have been addressed, please telephone the office as soon as possible.

#### *Periodic Journal Check*

To reconcile your changes of address and journal requirements (which amount to several hundred a year) with our instructions to the printers, we carry out a careful check from time to time against the publishers' labels. This is, as you can imagine, very time consuming as we have to make sure that every label is completely correct. Could you, routinely, examine your journal labels and annotate and return them if they are not right, but bear in mind that the computers impose certain constraints on the available space? Could you also please remember to do this whenever you have notified us of a change?

*Annual Contribution and Payments*

1. You are reminded that payment of the 1989/90 Annual Contribution is overdue. The rates are:

	No journal	One journal	Two journals
Fellow	£25.00	£30.00	£52.00
Associate	£12.50	£15.00	£37.00
Student Associate	£2.50		

2. As the Society has a US dollar account, payments may be made in dollars—but only in US dollars.

3. Fellows living in the United Kingdom or those who have access to a Giro account may prefer to use this method of payment.

4. We have been asked by a Fellow in North America if we can accept electronic payments. At present we do not have such facilities and have still to rely on the old fashioned handraulic methods. (Psst. Can anyone tell us what electronic payments are?)

5. Included in the review of the Bye-Laws, currently in hand, there is a proposal to reduce the qualifying age for composition to sixty. This is in response to comments by Fellows who are retiring earlier. There is also a proposal to reduce the Contribution of senior Fellows who no longer need a journal to a sum which will cover the costs of *The Linnean*—but this is still under consideration.

**NOTES***Nominations for President Elect, Officers and Council*

Fellows are reminded that anyone may make nominations for Council and Officers and, subject to the revised Bye-Laws being approved, for the new position of President Elect. To follow tradition, the next President will be a botanist and his election for his elective year will be, as for Council and Officers for the next session, on 24 May 1990.

Nominations should be received no later than 30 November 1989.

*Trust Funds, Grants and Awards for Research*

It is some time since we last wrote of the various, mostly small funds available to provide assistance with biological research with which the Society is directly or indirectly involved. The state of the funds directly under the Society's administration is detailed in the annual accounts; see for example *The Linnean* 5(1):71.

Naturally there are very many other sources which administer trust funds for charitable purposes or are grant-giving organizations. Those to whom we most frequently direct enquirers who fall outside our scope are the Royal Society and the British Ecological Society. The former is responsible for numerous scientific grants-in-aid whilst the latter administers small Ecological Project Grants which we understand are especially useful for people wanting limited assistance.

We distil below the bare bones of those funds of which we have either direct responsibility or to which we have been asked to draw your attention.

*The Appleyard Fund*

This fund has built up over the years so that grants in excess of the figure quoted could be made, depending on the number of applicants. Open only to Fellows and Associates not in full time employment as biologists, for research projects in botany or zoology. See *The List*.

*The Bonhote Fund*

Available to British-born subjects towards the cost of projects related to furthering the knowledge of heredity. The capital is increasing very satisfactorily. See *The List*.

*The Omer-Cooper Fund*

The tightly-worded Deed requires the money 'to be used for the furtherance of the study of Isopod Crustacea and/or the Hydrophagus Coleoptera'. Income is well in excess of current distributions. See *The List* for precise wording.

*The Dennis Stanfield Award*

The Fund has recently been magnanimously boosted by the donation of the royalties from *Nigerian Trees*, R. W. J. Keay. The Award, due to be made next in 1990, is recognized as a mark of real distinction to assist persons of scientific merit to undertake botanical research on tropical African plants. Applications, yet to be called for will close on 30 November 1989.

*The Percy Sladen Memorial Fund*

Although totally independent of the Society this fund is administered from Burlington House. It gives small grants only for field work in the life and earth sciences. Preference is given to individual field work overseas but grants are given to those participating in expeditions. No support is available for undergraduate expeditions or for course work, visits to conferences or institutions. Application forms available from the Secretary, P.S.M.F. c/o The Linnean Society of London. Closing dates 30 January and 30 September

*International Botanical Congress (Edinburgh) Fund.*

Used to assist young botanists (up to age 35 at time of travel) to attend botanical and cell culture meetings in U.K. or overseas and to attend associated excursions and visits. Not normally applicable to first and second year Ph.D. students. Information from Miss B. M. de Vere, Royal Society, 6 Carlton House Terrace, London SW1Y 5AG (01-839-5561 ext. 222).

*Scientific Publications Grants*

To assist only the cost of publication of the results of original research; educational journals are ineligible. Open to scientific societies and institutions but possibly also to local societies and individuals. Information from The Executive Secretary, Royal Society as above (ext. 219).

*The Oleg Polunin Memorial Fund*

Awards of up to £1000 are made to assist those wishing to undertake botanical/biological field work in the United Kingdom or overseas. They may be made to an individual or a member of an organized expedition. Applications to the Headmaster, Charterhouse, Godalming, Surrey GU7 2DJ, annually by 1 February. See also *The Linnean* 2(3):9.

*The John Ray Trust Bursaries*

Awards of up to £800, to a total of £2000 are being made for short periods of study into any aspect of Natural History and subjects in which John Ray himself would have been interested. Open to anyone resident in the United Kingdom. Information from Mr B. P. Camfield, Braintree District Council. Tel: (0376) 5525525 ext. 2001. Application forms from the Secretary, John Ray Trust, Causeway House, Bocking End, Braintree, Essex CM7 6HB. See p. 35.

*Botanical Research Fund*

Small grants may be made to individual research workers, both amateur and professional in support of some aspect of their work for which funding would not be available from other sources. Information from the Secretary, Mr P. Dixon, Dept of Botany, Royal Holloway and Bedford New College, Huntersdale, Callow Hill, Virginia Water, Surrey. Applications close annually on 31 March.

*Leverhulme Research Fellowships and Grants*

These are offered annually to individuals in aid of research. Intended to assist experienced investigators, particularly those whose routine duties might preclude their undertaking or completing a research programme. No subject of enquiry is excluded. Limited to those educated in the U.K. or Commonwealth who are normally resident in the U.K. and intending work lasting from three months to two years. Apply to The Secretary, Research Awards Advisory Committee, The Leverhulme Trust, 15–19 New Fetter Lane, London EC4A 1NR (01-822-6952).

*Staff changes*

Since the last number was published three new faces have appeared in the offices.

John Fiddian-Green has left after six and a half years as Executive Secretary. His replacement is John Marsden.

Sue Darell-Brown left at the end of March to help run a friend's business near St Austell, Cornwall. She took over the books, both financial and academic, and other aspects of the financial administration in 1979. The finances have been taken over by Kay Gallen who formerly ran an antiquarian book business in Dublin.

With the passing into history of the bicentenary, there was no post for Jacquie Elliott who had been with us since 1986, as the bicentenary secretary. Her place has been taken, in a new and evolving post of Administrative Assistant, by Norma Leslie. She has formerly had experience running conferences for the United Nations in Kenya. Norma has taken over the meetings, office administration and sales as well as assisting the Librarian with cataloguing.

Maria Polius is thus now the oldest inhabitant on the ground floor.

*The Executive Secretary*

John C. Marsden, M.A., D.Phil, who became the Executive Secretary on 7 July 1989, graduated in chemistry from Oxford University in 1961, continuing his postgraduate career in the Biochemistry Department working on epithelial secretion. After a year in Marburg, W. Germany, spent coming to grips with



Saturday 18th. To Library & Museum—called on Williams & McIntyre—Evening to Seance at Mrs. Ross. Remarkable Exd. room carefully & rooms below . . . Below the cabinet is the heating furnace & on the ceiling air pipes hot & cold clothed with cobwebs. Room carpeted up to walls, entire, . . . walls solid. Cabinet a cloth curtain with cloth top 2ft. below ceiling. Door to next room secured but gas-lights burning in it afforded perfect security. Ten visitors. Mr. & Mrs. Ross . . . Most striking phenomena.

1. A female figure in white came out with Mrs. Ross in black, and at the same time a male figure—to mid. of room.
2. Three female figures appeared together all in white of different heights—came 2 or 3 feet in front of cabinet.
3. A male figure came out recognized by a gentleman as his son.
4. A tall indian in white mocassins came out danced and spoke, shook hands with me & others—large strong rough hand.
5. A female figure with a baby—to entrance of cabinet. Went up and felt baby's face, nose, and hair, & kissed it—a genuine soft skinned living baby as ever I felt. Other gentlemen & ladies agreed.

As soon as the seance was over gas was lighted & I examined the bare walls of the cabinet, the curtains, & the door, all as before, & affording no room or place for disposing of the baby alone, far less of all the other figures.

During all the time a red-shaded lamp gave light sufficient to see time by my watch & to see outlines of every one present. But even had there been less light there was no possibility of any confederate entering or leaving the room without instant detection. Mrs. H. V. Ross 96, West Concord St., Boston.

The above extract is from Alfred Russel Wallace's unpublished notebooks relating to his American lecture tour of 1886-1887.

Wallace's study of Spiritualism can be traced back to 1844 when as a schoolteacher in Leicester he became interested in phrenology and mesmerism. However, it was not until 1865 that he visited his first seance, but from then to the end of 1874 he was a regular attender at such events. His enthusiasm for the occult was rekindled during his American tour (when he seems to have attended twenty seances) and his notebooks further record that in San Francisco, where he gave his most profitable (in net proceeds) lecture on Spiritualism—he also witnessed slate writing!

#### *The Zambia Society for General Microbiology*

On behalf of the Council and Executive Committee, I am pleased to announce the inauguration of the Zambia Society for General Microbiology. The Society held its inaugural ceremony on 26 November, 1988.

The Society will promote interest in all aspects of Microbiology in Zambia; it will encourage training, research and development in the University, Technical Institutes and Research Centres. The Society's calendar will include scientific meetings, symposia and seminars.

We extend greetings to other microbiological societies with this announcement of inauguration.

PROFESSOR DENYS MORGAN  
PRESIDENT

We are delighted to receive news of the foundation of this Society and to report that we have sent our good wishes, for its prosperity.

*Picture Quiz*

The picture in our January number (5(1):10) was a mezzotint of Augustin Pyramus de Candolle (not his son Alphonse as we erroneously stated in the March issue—5(2):10; 18 footnote).

There were nine correct answers from the following fellows:— Hervé Burdet, Eric Curtis, David Frodin, Peter Green, Chris Humphries, Karl Mägdefrau, Wilhelmina Rechinger, William Stearn and Edward Voss—each of whom will receive an old print.

Several of the above also referred me to *Taxon*, 21:120 (February 1972) stating that the original is an oil painting by Pierre-Louis Bouvier (1766–1836). However, the illustration we (and *Taxon*) used goes back to an 1829–1830 original, pencil drawing by Mme A. Munier-Romilly, of which many different renderings exist (mezzotint, engraving, oil painting, etc.). This particular portrait was considered by de Candolle's friends to be the one in which DC's expression and vivacity show best.

The portrait of DC by Bouvier and donated to the Société des arts is a different one. It shows him sitting in the open, in front of the Geneva Botanical Garden, with copies of *Plante grasse* and *Théorie élémentaire* beside him. According to Hervé Burdet (Keeper of the Candollean collections) who kindly supplied me with this information, the Bouvier portrait has never been published.

One final twist to this story is that in our records the mezzotint of DC is said to have been engraved by Bouvier after a drawing by A. Munier! But, according to the *Dictionnaire historique et biographique de la Suisse*—P.-L. Bouvier was a miniaturist and a painter (in oil and water-colour), who specialized in portraits. Nowhere is there any indication that he was ever an engraver.

Augustin Pyramus de Candolle himself was born in Geneva 4th February 1778 and died there on 9th September 1841. He was an outstanding plant taxonomist who published his first classic memoir *Histoire des conserves d'eau douce* in 1803. He subsequently not only completely revised Lamarck's *Flore française* (1805–1815) but also concomitantly proposed his own theory of symmetry in the structure of plants in his famous *Théorie élémentaire de la botanique* (1813). On his return to Geneva in 1816 he created the present Conservatoire & Jardin Botaniques which was opened on 19th November 1817. He subsequently wrote the first seven volumes of the *Prodromus systematis naturalis regni vegetabilis* (1824–1839). The remaining ten volumes were continued by various collaborators including his son Alphonse (who went with Bentham to the horticultural fête at Chiswick in 1828 (see the *Linnean*, — 5(2):18).

More than 300 plants have been dedicated to the memory of DC including one family and two genera—*Candollea* and *Candolina*.

This month's portrait (see below) was inspired by a contestant who suggested that the picture of A. P. de Candolle (5(1):10) was in fact this particular person! Although both portraits are of the same period their only real similarity lies in the spectacles being worn by both men. Interestingly at that time it was not possible to produce larger lenses, so that tiny glasses were universal—rather than as today fashionable with some of the intelligentsia.

The previous picture (5(2):10) was a portrait of our founding member—James Edward Smith. It hangs upstairs in the Library and has been recently

figured in *A Bicentenary History of the Linnean Society* by A. T. Gage and W. T. Stearn. It is a pencil and red crayon drawing of Smith aged about 30 by the portrait painter Mrs Anna Louisa Lane. There were two correct answers:—Dr. B. H. Peterson of Göteborg and Prof. J. W. T. Moody, Michigan.



Who? (clue—not a true devonian). Solution by October to the Editor.

*Rogate Study Centre—A Venue for Biological Field Work,  
Seminars and Working Groups*

Rogate Study Centre lies between Petersfield and Midhurst, 60 miles from central London and within sight of the South Downs. It is the country residential house of King's College London, set in 11 acres of garden and able to accommodate up to 50 people in shared rooms or 25 if single rooms are preferred. We provide a friendly relaxed atmosphere with plenty of good home cooked food. There are two village pubs just 50 m from the front door and there is a comfortable bar for those who prefer to stay at home. The Centre has two well equipped lecture/seminar rooms and a spacious high quality laboratory for practical work.

The Centre has been used for biological and geographical field work for 20 years and provides some classic opportunities. The area is especially good for woodlands both on base rich and acid soils; freshwater studies encompass running and still waters draining from acid and alkaline rock strata; heathlands abound on the Folkestone Beds and the South Downs are only three miles distant. A wide range of other users, including philosophers, artists and linguists, benefit from the tranquility found at Rogate.

Since February 1989 the Centre has been run by Dr. Mike Llewellyn and Clive Daws both formerly biologists at King's College London. They provide a comprehensive service to individuals, schools and colleges who wish to use the Centre. Advice on course planning and execution is always available and for a small fee practical help can be given. The Centre is developing its own courses



in biology, geography and the arts using experienced guest tutors. The cost of staying and using Rogate depends on the time of week and year and on the facilities required but as a general guide accommodation and meals is provided for between £15 and £18 per person per day.

If you would like to know more about Rogate Study Centre and consider using it for your party please contact Mike Llewellyn or Clive Daws at Rogate Study Centre, The Red House, Rogate, Nr. Petersfield, GU31 5HN. Telephone: 0730 80 621. They will be happy to visit or talk to you about the facilities and how they can be used for your benefit.

#### *Presidential Insignia*

You will see on p. 32 that, in common with very many other equally venerable Societies, we now possess a Presidential badge of office. [This will, of course, be reported in the Proceedings in the next number.]

#### *Deadlines*

The closing dates for material for *The Linnean* are 1 September for the January number and 24 November for the March number.

*Topical Typo*

We think biodata is a very apt elision for biologists' biographical data, and we definitely needed biotherapy, 4(3):6, to see us through the biocentenary year, 1(5):4. We now offer you biospeak as in the International Union for the Conversation of Nature.

*Room Closures*

The Rooms will be closed over the festive season from 22 December 1989 to 1 January 1990.

*Erratum*

The Foundation Day Dinner (see *The Linnean* 5 (1):46) was held at the Park Lane Hotel not the Hyde Park Hotel.

## Membership

*We welcome the following who were elected on  
16 March 1989:*

*Fellows*

Birgitta Evengard, M.D.  
N.R. Chalmers  
Gordon Charles Cook, M.D., D.Sc., F.R.C.P.,  
F.R.A.C.P.  
Quentin Charles Bargrave Cronk, M.A., Ph.D.  
Elizabeth Joyce Crossley  
Prof. M. Damanakis, Ph.D.  
David R. Field, G.I.Biol.  
Prof. Hernande Garcia-Barriga  
Revd. George Gordon Graham, B.A., M.Sc.  
John J.B. Gill, B.Sc., Ph.D.  
Kerstin Carlsson Gullvert  
Audrey le Lievre, B.A., Ph.D.  
Peter Joseph Hayward, B.Sc., Ph.D.  
Timothy Gerald Holden, B.Sc., M.Sc.  
Alan J. Kohn  
Walter Anthony Lord, B.Sc., Ph.D., M.I. Hort.

Luis Eduardo Luna  
Prof. Paul G. Mahlberg, Ph.D.  
Simon James Moore, M.I.Sc.T., C.G.L.I.  
Prof. Eviatar Nevo  
L. Anders Nilsson, Ph.D.  
Hideaki Ohba  
Bernard Charles Owens  
Robert Barton Park  
Hugh Lance Pearson, B.Sc.  
Ole Seberg, M.Sc., Ph.D.  
Robert E. Stebbing, Ph.D., C.Biol., M.I.Biol.  
Ruth Stungo  
Christopher James Tribe, B.A.  
Prof. Keith Vickerman, Ph.D., D.Sc., F.R.S.E., F.R.S.  
Gary Campbell Williams, B.A., M.A., Ph.D.  
Rupert Guthrum Wilson, B.Sc.  
Federick Richard Woodward, B.Sc.

*Foreign Members**24 May 1989*

Dr Nelson Estrada-Ramos  
Professor Hugh Edward Haldane Paterson  
Dr Madeleine Van Campo

Colombia  
Australia  
France

*Fellows*

Donat Agosti, dipl.natw.ETH., Dr.sc.nat.  
Erik Emil Auggard, M.D., Ph.D.  
Rex Ernest Ronald Banks, A.I.A., Depl.Arch.Man.  
Fred Rogers Barrie, M.Sc., Ph.D.  
Peter Charles Boyce  
Alan Edward Burman  
Amanda Jane Carozzi, B.Sc., Ph.D.  
Francis Anthony Drobniowski, B.A., M.A., Ph.D.  
Prof. John A. Endler, Ph.D., B.A.  
Anthony Arthur Fincham, B.Sc., Ph.D.  
Alec Forbes, B.Sc., M.Sc.

Major Andrew Galloway Fordyce  
Peter Hamilton Gibson, B.Sc., M.Sc., Ph.D.  
Robert Eyres Kenward, B.A., M.A., D.Phil.  
Ian Fraser Lyle  
Inger Nordal  
The Hon. James Harry Scarlett  
Duncan Alexander Stewart, B.Sc., Ph.D.  
Tomas Tulberg  
Dr Vijaya  
Charles I. Wilson, B.Sc.

*Associates*

Filacchione Alberto

Peter Alfred Schmidt

*Members of Council*

The following were elected to serve on Council on 24 May 1989:

*John Alec Beardmore, F.I.Biol., B.Sc., Ph.D.*, is Professor of Genetics and Head of the School of Biological Sciences at the University of Wales, Swansea. He has interests in biological education, evolutionary genetics, human genetics, and applications of genetics to aquaculture. He has served as Honorary Secretary of the Institute of Biology, member of the British National Committee for Biology and Chairman of the Aquatic Life Sciences Committee of the NERC.

*Peter Edward Brandham, B.Sc., Ph.D.*, a graduate of Queen Mary College, London, is head of the Cytogenetics Section of the Jodrell Laboratory, Royal Botanic Gardens, Kew. Working mainly on petaloid monocotyledons, he is interested in the contribution that chromosome studies can make towards clarifying the relationships between species in difficult groups. His interests also include chromosomal evolution in the wild and in cultivated plants. He has organized or participated in numerous expeditions to Africa and South America and lectures widely on botanical travel and photography. He was for over ten years Secretary of the Conservation Committee of the Botanical Society of the British Isles, and has been an associate editor of the *Botanical Journal of the Linnean Society* since 1980, taking responsibility for cytological and anatomical articles.

*Dianne Edwards, M.A., Ph.D.(Cantab)*, was Reader in Palaeobotany in the Department of Plant Science, University College, Cardiff until last year when she was transferred to the Department of Geology in the new institution in Cardiff. Her major research interest is in early land vegetation, and in particular the organization, systematics, ecology, distribution and evolution of the first vascular plants. She has collected and investigated fossils from China, the Soviet Union, Australia and South America, but her most productive localities are in her 'back garden'—in South Wales and the Welsh Borderland. She is currently an associate editor of the *Botanical Journal of the Linnean Society*, and member of Council and secretary to the Publications Committee of the Palaeontological Association.

*David John Galloway, D.Sc., Ph.D.*, a graduate of the Department of Biochemistry, Otago University, Dunedin, New Zealand, is currently Head of the Lichen Section at the British Museum (Natural History). He is interested in the systematics and biogeography of lichen vegetation and floras in the Pacific Basin. He has written a major lichen flora of New Zealand, and is currently working on a lichen flora of Chile, and on aspects of Pacific tropical lichenology. He is organizing the first International Conference on Tropical Lichens for the Systematics Association; is currently President of the International Association for Lichenology and is also a Council member of the British Lichen Society. He is also keenly interested in the history of botanical investigation and discovery in the Pacific region, and was a member of the Linnean Society's recent Kimberley Research Project.

*Vaughan Southgate, B.Sc. Ph.D. F.I.Biol.*, is Head of the Experimental Taxonomy Division, British Museum (Natural History). He graduated from the University College of Wales, Aberystwyth and Christ's College, Cambridge and is particularly interested in parasitology, with special emphasis on schistosomes and their molluscan hosts. He has carried out field studies in many African countries and elsewhere in the tropics; his work utilizes a

combination of laboratory and field studies to elucidate taxonomic and biological problems in schistosomiasis. He was co-editor of the *Journal of Natural History* for eleven years and now serves a number of scientific societies in various capacities, including the British Society for Parasitology, Royal Society of Tropical Medicine and Hygiene, the Zoological Society of London, and the World Health Organization.

### *Membership of Committees*

This is the list approved by Council for 1989–90:

#### *Collections Curatorial*

Dr K. A. Joysey (Chairman)  
Dr R. K. Brummitt  
Mr P. S. Davis  
Dr C. E. Jarvis  
Mrs S. Morris

ex officio: The Officers  
The Librarian  
The Curators

#### *Editorial*

The Editorial Secretary (Chairman)  
Prof. R. J. Berry *Biol. J.*  
Mr J. F. M. Cannon  
Prof. B. W. Fox  
Prof. B. G. Gardiner *The Linnean*  
Dr S. L. Jury *Bot. J.*  
Dr D. M. Kermack *Synopses Series*  
Dr H. M. Platt *Zool. J.*  
Dr V. R. Southgate

ex officio: The Officers  
Ed. *J. Zool.* (Dr M. A. Edwards)  
Review Ed. (Prof. J. G. Hawkes)  
by invitation: Rep. of Society's Publishers  
Dr R. S. K. Barnes, Joint Editor  
*Synopses* (EBSA)

#### *Finance*

Treasurer (Chairman)  
The Rt Hon. The Earl of Cranbrook  
Mr F. R. Goodenough  
Dr C. B. Goodhart

ex officio: President, Secretaries  
Chairman of the Library Committee

#### *Flora Europaea Trust Fund*

Botanical Secretary (Chairman)  
Mr. A. O. Chater  
Prof. D. M. Moore  
Dr S. M. Walters

ex officio: President, Treasurer

#### *Grants*

President (Chairman)  
Vice Presidents  
Dr J. S. Churchfield  
Prof. J. G. Hawkes  
ex officio: Treasurer, Secretaries

#### *Library*

Mr G. Ll. Lucas (Chairman)  
Mr R. E. R. Banks  
\*Mr J. Collins  
Prof. P. M. Daniel  
\*Mr R. G. C. Desmond  
\*Miss S. M. D. Fitzgerald  
\*Mrs S. Gove  
\*Miss J. Sheppard  
Prof. W. T. Stearn  
Mr D. P. Taylor-Pescod  
Dr P. F. Yeo

ex officio: The Officers  
\*Not Fellows

#### *Medals and Awards*

President (Chairman)  
Vice Presidents  
1 Botanical } member of Council who attended  
1 Zoological } Separate Meetings of Council  
Treasurer, Secretaries

#### *Programmes*

Zoological Secretary }  
Botanical Secretary } Chairmen  
Dr J. H. Crothers  
Mrs V. M. Purchon (Sixth Form Lectures)  
Dr P. M. Rainbow  
Dr D. Rollinson  
Dr D. A. S. Smith  
Dr S. M. Tilling  
To attend when so desired: Group organizers (as listed on the Meetings Card)

ex officio: President, Treasurer

## Meetings

**14–15 September 1989. *The Living World of the Australian Kimberley.*** This symposium will be held in the Jodrell Laboratory at the Royal Botanic Gardens, Kew to discuss the biological findings of the research project

mounted jointly with the Royal Geographical Society from March to July 1988. Applications to attend should be made to Mr M. J. S. Sands at Kew on (01) 940-1171. See also the gold flier.

**19 October 1989** at 17.00. Tea will be served at 16.15 and refreshments on conclusion.

*Agenda*

1. Admission of Fellows.
2. Minutes of the Anniversary Meeting held on 24 May 1989.
3. Ballot for the election of Fellows, Associates and Student Associates.
4. First reading of the revised Bye-Laws.
5. Communication: ***Animal Mitochondrial DNA as a Genetic Marker in Systematic and Evolutionary Biology***, Professor R. Harrison, Cornell University.

*Abstract*

The popularity of animal mtDNA as a molecular marker derives, in part, from the relative ease with which clearly homologous sequences can be isolated and compared. Simple sequence organization, maternal inheritance and absence of recombination make mtDNA an ideal marker for tracing maternal genealogies. Recent studies of mtDNAs from a diversity of animal groups have revealed significant variation in mtDNA sequence dynamics, gene order and genome size. They have also suggested that mtDNA phylogenies must be interpreted with great care.

**2 November 1989** at 18.15. ***A New History of the Microscope***, Mr B. J. Ford, F.L.S. This general interest lecture will be followed by a society informal evening during which a Book Bring and Buy will be held. Those wishing to attend are requested to complete and return the buff flier by Thursday 26 October 1989.

*Abstract*

The traditional view of history has held the familiar compound microscope to be the leading instrument of biological research. That view is now changing. In this lecture demonstration, Ford shows the importance of the single lensed (simple) microscope. It was this instrument that gave us many of the fundamental concepts of modern biology, including the nucleus, the cell, the pollen tube and spermatozoa. Many of these pioneering discoveries will be recreated in the presentation. In addition, the engineering design of the modern compound microscope will be shown to have derived from earlier forms that have often been ignored by previous historians of science.

**16 November 1989** at 10.30. ***Global Change and the Biosphere***. This all day meeting is being held jointly with the British Ecological Society. Those wishing to attend are requested to complete the green flier.

*Agenda for Society business*

1. Admission of Fellows.
2. Minutes of the meeting held on 19 October 1989.
3. Second reading of the revised Bye-Laws.

*Preamble*

Concern with the global change is one of the major preoccupations of our day. The greenhouse effect, with the prospect of climatic change and sea-level rise; the ozone hole; pollution of the atmosphere, our rivers and lakes and of the oceans, these are the subjects of daily news coverage. This meeting focuses on those global phenomena which are particularly involved with, or have impact on, the biosphere. What are the likely effects of the anticipated environmental changes on living systems, on a global scale: on natural terrestrial communities; on marine life; on agriculture, and on man? Are all the likely effects of global change 'bad', or may there be some redeeming aspects of the changes? These and related issues will be raised when considering the biological aspects of global change from a wide range of different perspectives.

*Programme*

10.00 Coffee and registration

## SESSION I

*Chairman:* Prof. A. D. Bradshaw

10.30 *Interactions between the Geosphere and Biosphere, and the aims of the IGBP programme.* W. G. Chaloner, Surrey.

11.05 *Responses of terrestrial vegetation to changing atmospheric Carbon-dioxide.* F. I. Woodward, Cambridge.

11.40 *Prediction of effects of changing precipitation and temperature regimes.* M. H. Unsworth, Nottingham.

12.15 *Rates of response and migration of plant communities under changing climate.* B. Huntley, Durham.

12.50 Lunch

13.45 Linnean Society business

## SESSION II

*Chairman:* Prof. W. G. Chaloner

14.00 *Changing productivity of the oceans in response to a changing climate.* G. E. Fogg, Bangor.

14.35 *The response of grassland communities to environmental change.* D. Hall, Kings College, London.

15.10 Tea

15.55 *Assessing the effect of climatic changes on agricultural potential.* M. L. Parry, Birmingham.

16.30 *Evolutionary response to global change.* A. D. Bradshaw.

17.05 Summing up. W. G. Chaloner.

**14 December 1989** at 17.00. Tea will be served at 16.15 and drinks on conclusion.

*Agenda*

1. Admission of Fellows.
2. Minutes of the business meeting held on 16 November 1989.
3. Ballot for the adoption of the revised Bye-Laws.
4. Debate: ***The Gaia Hypothesis***. See the pale yellow flier for details.

**11 January 1990** at 17.00. Tea will be served at 16.15. See the yellow flier.

*Agenda*

1. Admission of Fellows.

2. Minutes of the meeting held on 14 December 1989.
3. Ballot for the election of Fellows, Associates and Student Associates.
4. Communication: *Honeybee Biology with Man in Mind*, Professor R. S. Pickard, Bee Research Unit, University of Wales.

#### *Abstract*

Evolution, ecology, pathology, reproduction and neurobiology will be discussed. Honeybees will be considered as established social creatures; man, as a herding animal aspiring to become social. The precepts of natural history, beekeeping, biology, engineering and medicine will be integrated to ask of man, how free is a free thought; how worthwhile is a human society?

**25 January 1990 at 10.30. *Conservation of Marine Communities.*** See the blue flier.

#### *Agenda for Society business*

1. Admission of Fellows.
2. Minutes of the meeting held on 11 January 1990.
3. First reading of Certificates of Recommendation for election of Foreign Members and Fellows *honoris causa*.

#### *Programme*

- 09.45 Registration and coffee.
- 10.30 *Threats and conservation measures.* Dr R. Mitchell (NCC).
- 11.00 *Identification of key sites.* Dr K. Hiscock and Dr R. Mitchell (NCC).
- 11.30 *Coastal Lagoons—a case study.* Dr R. Barnes (Cambridge).
- 12.00 *Lundy—a case study.* F. R. Gomm (NCC).
- 12.30 Lunch
- 13.45 Linnean Society business.
- 14.00 *Lough Hyne—a case study.* Professor Alan Myers (Cork).
- 14.30 *Fisheries conservation in statutory conservation areas—need there be a conflict?* Dr S. Lockwood (MAFF, Conwy).
- 15.00 *Monitoring for conservation management.* Dr S. Bolt and Dr K. Hiscock (NCC).
- 15.30 Tea
- 16.00 *Sediment communities with special reference to Loch Sween.* Dr R. J. A. Atkinson (Millport).
- 16.30 *Marine communities of Britain's south-western islands.* Miss S. Fowler (NCC) and Dr K. Hiscock.
- 17.00 *Review of marine conservation in Denmark.* Dr Hans Christensen (Denmark).
- 17.30 General Discussion.
- 18.00 Buffet Supper.

## Meeting Announcements

### *Pollen and Spores: Patterns of Diversification*

This international symposium is being organized by Dr S. Blackmore and Miss S. H. Barnes of the Natural History Museum for the Linnean Society and the Systematics Association. It will be held in London on 28–30 March 1990

and aims to explore the origins of the great morphological diversity exhibited by spores and pollen grains in terms of:

- (1) the evidence for diversification in the fossil record of dispersed and *in situ* spores and pollen grains;
- (2) the relationships between ontogeny, evolution and form;
- (3) the diversity of extant groups interpreted by current analytical methods.

The meeting will bring together contributors from the fields of palaeobotany, ontogeny and molecular biology, and systematic palynology to produce novel insights into the pathways and processes of diversification in land plant spores and pollen grains.

The programme is now full but contributions to the timetabled poster sessions are invited. Further details may be obtained from: Susan H. Barnes, Natural History Museum, Cromwell Road, London SW7 5BD.

### *The Unity of Evolutionary Biology*

The Fourth International Congress of Systematic and Evolutionary Biology, being held to consider this topic on 1–7 July 1990, is being co-hosted by Maryland University and the Smithsonian Institution. Major symposia will include *Evolution in perspective: biodiversity, conservation, biotechnology and global change; tempo and pattern of evolution: micro- and macro-evolutionary process, systematics and phylogenetic reconstruction*. The aim will be to foster a resynthesis of the theory of evolution, incorporating new and traditional approaches. Contributed papers or posters are invited. Travel funds may be available. Key dates are:

Second announcement mailed	Oct 89
Pre-registration (reduced rate) closes	1 Jan 90
Receipt of abstracts closes	1 Feb 90

The Society has been approached both to sponsor the meeting and to hold a half-day symposium or to contribute papers.

The Officers will be delighted to consider proposals for participation by a Fellow or Fellows on behalf of the Linnean Society. Those in North America are especially encouraged. For further information contact Dr Pierre-Marc Daggett, Dept. of Microbiology, University of Maryland, College Park, Maryland 20742 U.S.A. and write to this Society as soon as possible.

## Other Meetings

**1989**

August

6–12 *International Workshop on Seeds*. Williamsburg Va. Details from: Dr R. Taylorson, USDA/ARS, Room 38, Building 001, BARC-West, Beltsville, MD 20705, USA.

- 22–29 *5th Int. Theriological Congress*. Rome, Italy. Details from: 5th Int. Theriological Congress, c/o Dipart. Di Biologia Animale e dell'Uomo, Universita di Roma 'La Sapienza', Viale dell'Universita 32, I-00185, Roma, Italy.
- 25 *Palaeolimnology and Lake Acidification*. Discussion meeting. Royal Society, 6 Carlton House Terrace, SW1Y 5AG.
- 31 *Vth Int. Symposium on Palaeolimnology*. Ambleside, Cumbria. Details from: Prof. F. Oldfield, Dept. of Geography, Liverpool University, P.O. Box 147, Liverpool L69 3BX

## September

- 4–7 *Population Dynamics of Forest Insects*. Heriot-Watt University. Details from: Dr A. Watt, ITE, Bush Estate. Penicuik, Midlothian EH26 0QB
- 4–8 *Tropical Lichenology* British Museum (Natural History). Details from: Dr D. J. Galloway FLS, BM(NH).
- 5–9 *Int. Symposium on Conservation Phytoecology*. Beijing, China. Details from: Assoc. Prof. Chen Weille, Inst. of Botany, Academia Sinica, 141 Xizhimenwai Ave., Beijing 100044, China.
- 6–8 *Major Evolutionary Radiations*. Durham. Details from: Dr G. Larwood, University of Durham.
- 11–15 *151st Meeting of B.A.A.S.* Sheffield.
- 11–15 *Peatland Ecosystems and Man—an Impact Assessment*. Dundee. BES.
- 11–19 *1st World Congress of Herpetology*. Canterbury, Kent. Details from: The Secretariat, First World Congress of Herpetology, Ecology Research Group, Rutherford College, University of Kent, Canterbury CT2 7NY.
- 14–15 *The Conservation of Insects and their Habitats*. Symposium. R.Ent.Soc.
- 18–23 *Int. Congress of Coleopterology*. Barcelona. Details from: Faculty of Biology, University of Barcelona, Avda. Diagonal, 645 08028 Barcelona, Spain.
- 19 *Ordination in Classification*. Rothamsted, Herts. Details from: Dr J. N. Perry, Rothamsted Experimental Station, Harpenden, Herts AL5 2JQ
- 24–29 *Photomorphogenesis in Plants*. Freiburg. Society for Experimental Biology.
- 24–30 *International Union for the Conservation of Nature*. Venice.
- 25–29 *2nd Congress, European Society for Evolutionary Biology*. Rome. Details from: Prof. V. Sbordoni, Dipartimento di Biologia – II Universita di Roma 'Tor Vergata', via Orazio Raimondo, I-00173 Roma, Italy.

## October

- 4 *The Effects of Temperature on the Final Stages of Butterflies*. Mr K. E. J. Bailey, R.Ent.Soc.
- 10 *Exploring evolution in higher vertebrates*. Profs M. Crawford, B. Gardiner and Mr E. C. Holmes, Zoological Society.

## November

- 1 *Some New Developments with Pheromones and Other Semiochemicals: a Chemist's View of Entomology*, Dr J. A. Pickett. R.Ent.Soc.
- 8–9 *Allochthonous Terranes*. Discussion meeting. Royal Society.
- 14 *The seal epizootic*. Drs J. Baker, S. Carter, J. Harwood and S. Kennedy, Zoological Society.

## December

- 6 *The Craving Locust*. Dr S. J. Simpson. R.Ent. Soc.
- 6–7 *Migrant Pests: Progress, Problems and Potentialities*. Discussion Meeting. Royal Society.
- 12 *Pigs, peccaries and babirousas*. Mr W. L. R. Oliver and Dr P. Grubb, Zoological Society.
- 15 *The Regulation of Growth and Development—The Elucidation of Signal Pathways*. 5th Annual Symposium on Biotechnology. Details from: Prof P. N. Campbell, Dept of Biochemistry, U.C.L., Gower Street, London WC1E 6BT.

**1990**

## February

13 *Biodiversity*. Prof. May, Drs P. Harvey and N. Stork, Zoological Society.

21–22 *Technology in the Third Millennium: Environment*. Discussion Meeting. Royal Society.

## March

7–8 *Prediction and Control in Agro-ecosystems*. Discussion meeting. Royal Society.

## April

25–27 *Landmarks of Natural History*. London. Details from The Secretary, Society for the History of Natural History, BM(NH), Cromwell Road, London SW7 5BD.

## May

23–24 *Regulation and Relative Abundance of Plant and Animal Populations*. Discussion meeting. Royal Society.

## July

9–14 *3rd Int. Conf. des Entomologistes d'Expression Française*. Gembloux. Details from: Dr C. Verstraeten, Faculté des Sciences agronomiques de l'Etat, B-5800 Gembloux, Belgium.

16–24 *Int. Symp. on Biology and Conservation of Rare Fish*. Fisheries Soc. of British Isles. University of Lancaster. Details from: Dr T. Bagenal, Tarnside, Lupton, Kirby Lonsdale, via Carnforth, LA6 2PP.

## August

22–26 *Behavioural Ecology and Foraging Behaviour*. Uppsala. Details from: Staffan Ulfstrand, Dept. of Zoology, Box 561, S-751 22, Uppsala, Sweden.

23–30 *Vth International Congress of Ecology*. Yokohama, Japan. Details from: P. F. Maycock, Secretary-General, INTECOL, Erindale College, University of Toronto, 3359 Mississauga Road, Mississauga, Ontario L5L 1G6, Canada.

## September

16–21 *Acid deposition: its Nature and Impacts*. An International Conference to be held in Glasgow. Organized by The Royal Society of Edinburgh. Details from: Acid Deposition '90, CEP Consultants Ltd, 26–28 Albany St., Edinburgh, EH1 3QH.

## December

2–9 *XX Int. Ornithological Congress*. Christchurch, New Zealand. First circular form: Dr B. D. Bell, Sect. General, XX Int. Ornithological Congress, Dept. of Zoology, Victoria University of Wellington, Private Bag, Wellington, New Zealand

## Correspondence

Woodland Research Group,  
The Polytechnic,  
Wolverhampton

24.1.89

Dear Editor,

The nature of the Society's journals is a key issue in the current discussion on *The Way Ahead*. Journals are published for many reasons: to produce income, give expression to particular areas of research or interest, to enhance the status of the organization producing them, and to act as tools which enhance scientific research.

The three main journals published by our Society are all of such a standard as to enhance our reputation and assist our finances: we are clearly grateful to both the Editors and the publisher. On the other hand they are too specialist in their nature to cover the interests of all the Fellows. I think the present policy

of the Biological Journal has narrowed too much in recent years. By subtitling it 'A Journal of Evolutionary Biology' the Editor is excluding much that it should deal with: our Society is concerned primarily with Linnaeus, not Darwin, distinguished though he was.

The gap I particularly deplore is that the Linnean Society would appear to have no journal which would welcome papers on the ecology of areas which Linnaeus knew well. It is absurd that work like this has to go to *Vegetatio* (eminent though that journal is) or other journals having no connection with our society. It seems to me that we should make a particular effort to encourage, and publish, work on Scandinavian plants and vegetation.

The *Linnean* is quite different. It is by far the most interesting publication which the Society produces and one which actually tends to integrate the membership. Its high standard and lively nature enable it to appeal to Fellows and casual readers alike, and I am sure that it is a useful aid to recruitment.

A final comment would be that our scientific journals are excellent, but they should not be allowed to become too narrow, and that ways should be found of publishing material relevant to all fields of scientific study embraced by Linnaeus.

Yours sincerely,  
JOHN PACKHAM

20.4.89

Ritzema Bosweg 61,  
6706 BD Wageningen.

Dear Editor,

The news of a new antique portrait of Linnaeus for the Society is welcome. But a Fellow who would like to see the larger version in Amsterdam might have a hard time to find it. *Natura Artis Magistra* is better known as *Artis*, the Amsterdam Zoo. However, a ticket for the reindeer will not bring one to Linnaeus in Lapland dress. He is in the Reading Room of the *Artis Library*, which is part of the University of Amsterdam, not the Zoo although it is in its grounds. The entrance is at 45A Plantage Middenlaan. The *Artis Library* is worth a visit also for the very important collection of Linnaeana, only the Society and Uppsala have larger ones. The building can be recognized by a series of marble plates with names of naturalists, Linne is between Artedi and de Buffon. A photograph is produced by the present Librarian, Miss Florence Pieters, in an article 'The first 150 years of "Artis" and the *Artis Library*' in *Bijdragen tot de Dierkunde*, 58: 1-6, 1988. When one has come that far, take the opportunity to visit the *Hortus Botanicus*, a few hundred yards away. Here Linnaeus went immediately after debarkation, became friends with Professor Johannes Burman and laid the foundations for his successful stay in the Netherlands.

Kind regards  
D. ONNO WIJNANDS

13.12.88

The Hancock Museum,  
The University,  
Newcastle upon Tyne

Dear Professor Gardiner,

*The Correspondence of Nathaniel John Winch (1768–1838)*

In *The Linnean*, 2(3) 1986 Julian Leathart and I described our work on the correspondence of the Newcastle botanist N. J. Winch (1768–1838) held in the Library of the Linnean Society. Recently I deposited with Gina Douglas a first draft of the results of our efforts, which it is hoped will be of value to members, especially to those with an interest in early 19th century botany and geology. The main components of this volume are (i) a biography of Winch (ii) biographical notes on the correspondents (iii) an author index which includes a précis of each letter (iv) an index of plant species mentioned in the correspondence (v) an index to British localities cited in the letters and (vi) an index of other (i.e. non-British) localities mentioned. There is still work to do on the databases from which the indexes (iii)–(vi) have been created; until the refinements are carried out it is hoped that the present volume will serve as a useful guide to the Winch Correspondence. Another copy has been lodged in the Botany Library of the British Museum (Natural History).

Yours sincerely,

PETER DAVIS

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29.8.88

Botanisk Institut,  
Aarhus Universitet,  
Nordlandsvej 68,  
DK-8240 Risskov,  
Danmark.

Dear Sir,

The Botanical Institute, Aarhus University, has a complete set of *J. Lin. Soc. Bot.* and the later *Bot. J.* etc. from vol. 48. In your latest issue of *The Linnean* I have noticed the request for good homes for old journals. We can offer excellent conditions for book volumes up to vol. 48. If you should come across any offers please let me know. We pay of course the transport and if it is wanted a modest sum pr. volume.

With kind regards,

KAI LARSEN  
*Professor of Botany*

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## Notes on the correspondence of E. M. Holmes (1843–1930)

The correspondence in the Linnean Society consists of letters to E. M. Holmes from 103 people, written between 1867 and 1909, and occupying three large files. The first letter is from Holmes himself, dated 27th October, 1927, to the Secretary of the Linnean Society, asking to be excused from further payment of his subscription. He had been a Fellow at that time for over fifty years, but in 1922, at the age of 79, he had been knocked down by a bus and had had to have one leg amputated. This led to acute rheumatoid arthritis and heavy medical expenses, and he was confined to his house in Sevenoaks. His request was granted. It is touching to find a man of such distinction in such financial straits. Professor Shellard's recent biography of Holmes in *A History of British Pharmacognosy 1842–1980* (1987) describes his career not only as a pharmacognosist, but also as a pharmacist and botanist. In 1872, at the age of



E. M. Holmes

30, he was appointed Curator of the Materia Medica Museum of the Pharmaceutical Society, "the premier museum of its kind in the entire world at a time when vegetable drugs were the main source of medicinal agents". He remained Curator for 50 years. Not only did he fill this post with distinction, but he also contributed many articles to the *Pharmaceutical Journal*, the *Chemist and Druggist* and other journals, as well as to the *Encyclopaedia Britannica*. At the same time he remained a keen botanist and was an expert on sea-weeds, mosses, liverworts and lichens. The letters in this collection concern these subjects, and many of his correspondents testify to his knowledge, helpfulness

and patience. In some cases life-long friendships developed, and the general impression given by the letters is of someone of tireless energy, kindness and capacity for hard work. One of his correspondents, (Mr Gostling of Diss in Norfolk) warned him in 1887 about dissipating his energies in trying to help too many people at the expense of his own researches. Judging by the letters he neglected neither his researches nor his correspondents. His correspondents are mostly British, apart from six who are French, four German, two from Florida, one from Australia and two from Sweden. His British friends lived in places as far apart as Penzance, the Firth of Clyde, Brighton, Jersey, Yorkshire, Orkney, Kent and Worcestershire. Specimens of marine algae, mosses and lichens were sent to him from all over the British Isles, as well as from Norway, Sweden, Florida, Tasmania, France, Cape of Good Hope, Ceylon and Australia. He exchanged specimens and identifications with all his correspondents, and their expertise and discoveries of common and rare species must have helped him greatly. Most of his correspondents were amateur algologists, with a sprinkling of moss and lichen collectors. Their professions ranged from portmanteau-maker, to bank manager, from professor of botany to umbrella-mender, from market-gardener to farmer. Ten were women, ten were clergymen. To many the study of algae seems to have been a life-long interest, others seem to have taken up botany only in old age. There are many complaints of bronchial colds, asthma, arthritis, poisoned fingers, which often prevented field-work for weeks at a time. Many suffered from mysterious illnesses such as "colic of the heart" (Traill) or depression, and Holmes seems to have been always ready to prescribe remedies or to recommend healthier regimes. Many complain of head-aches and poor sight, which prevent the use of microscopes or the mounting of slides, and of colds and chills. One cannot but be grateful for modern antibiotics, ophthalmological help and central heating. However, even with these modern aids, few of us, perhaps, at the age of eighty would venture to scramble over wet rocks in icy weather looking for sea-weeds, as several of Holmes's friends did. There are frequent references to poverty, too: George Traill, for example, says that he cannot any longer afford to arrange plants in the herbarium in the Botanic Gardens, as the bus costs 1/- each way, and the Gardens have no money to pay his expenses. W. H. Grattan wrote several letters begging Holmes to find a buyer for his collections (he would accept £1 for 200 ferns) and he was grateful for £5 at Christmas to stave off destitution from himself and his wife, both aged 77 and ill with bronchitis.

Several people wrote only a few letters, answering specific queries or asking for identifications. James Cook, the circumnavigator, was one of these and so was Joseph Hooker, who wrote giving his identification of *Mandragora caulescens* and sending the list of *Plantae Submarinae*. In 1891 a Mrs Farquerson wrote from St. Andrews saying that she intended to take up the study of algae now that her husband had died. It seems that she used to send her lady's maid out on the shore to collect algae and so, when her maid moved to Hampshire, Mrs Farquerson found it hard to get specimens and soon gave up writing to Holmes. Rev. David Landsborough, an expert on the flora of Ayrshire and Arran, wrote one or two interesting letters about introducing Australian plants to Arran in about 1890. Professor Thomas King, Professor of Botany at Glasgow, wrote three letters in which he writes about the discovery on Arran of

a rare species of *Sphacellaria* and the cutting of the railway line through the Glasgow Botanic Gardens. But perhaps the most interesting letters are from people who kept up a regular correspondence over a number of years and who developed a real friendship and collaboration with Holmes. It is difficult to select the most interesting, but the following five people are representative and may be described at greater length.

1. *Edward Batters* (1860–1907) B.A. Cantab. 1882, FLS 1883 was a barrister and distinguished algologist, who wrote 107 letters to Holmes between 1882 and 1900 from Berwick-on-Tweed, Wormley and Waltham Cross. He worked closely with Holmes on the List of British Marine Algae and both were in touch with other experts such as Thomas Buffham, Professor Agardh and George Traill. Many of the letters concern their joint work and are confined to descriptions of different sea-weeds, requests for various specimens, publications, proofs etc. Occasionally slightly more personal notes enter the letters, e.g. when he advises Holmes about a difficult correspondent who accused Holmes of losing one of his specimens and wrote some defamatory letters, or when Batters explains a four months' silence as being due, not to unfriendliness, but to illness, "his brother being ill, the cook having rheumatism, the house-maid being away and his sister being departed for India". Several letters written in August 1891 give an interesting account of the Marine Research Station ('The Ark') at Millport on the Clyde\*,—everything going wrong, Millport crowded and second-rate, Dr Murray making the members of the work-shop feel unwelcome, difficulties of dredging from 'The Medusa', Dr Murray's private yacht etc. The Ark features in the lives of several of Holmes's algologist friends. Despite a misunderstanding in 1891 about their agreement (which Batters seems to have forgotten) to publish their List under both their names, the matter seems to have been settled amicably and the correspondence goes on until 1900, and was clearly of mutual benefit.

2. *David Robertson* (1806–1896) LLD Glasgow 1894, FLS 1876. The letters of *David and Hannah Robertson* are in many ways more interesting than those from Batters. They lived in Millport on the Clyde, where the Marine Station was set up 1884 and with which they were closely associated\*. David Robertson was born in 1806; his wife was sixteen years younger and they did not start writing to Holmes until 1891, by which time they were both experts on algae (he says that his wife did most of the identifications and the mounting of slides), and she took over the correspondence and the collecting of specimens for Holmes in 1896 after her husband's death. In his ninetieth year Robertson was finding that rheumatism was preventing him from doing much shore work, although he was hoping to go out in a boat soon. He offered to make a dredge for Holmes, like that belonging to Mr Brebner, another of Holmes's correspondents, and he asked Holmes for a spirit lamp for melting glycerine for mounting slides, such as the one Holmes had given the Marine Station. He said "he would not grudge 3/6 for it" and was delighted when it arrived. Later he asked Holmes to contribute to the Marine Station, which needed a permanent building and about £80–£100 for its upkeep. In July 1896 they were delighted with a visit from Holmes, and they met him at Keppel pier from the Glasgow train. After David's death, Holmes repeated the visit in 1897. Despite her age and bad health, Hannah continued to work hard. She was very pleased that an *Ectocarpus* found on some *Zostera* (which she and her husband

had been inspecting every week for about two years) had proved to be new to Great Britain. In 1898 she wrote that 355 visitors came to the Ark on Glasgow's Spring holiday, and that there were nine students there, but none working on algae. In 1899 she sympathized with Holmes for the "rheumatism in his stomach" and says that she herself was ill with pains in the head and rheumatism. But she still managed to work on the list of Clyde algae with the help of Mr Waite and following the order in the list by Holmes and Batters. In



David Robertson

October 1901 she was hoping to collect *Zostera* if she could find a boat. She continued her work and her letters to Holmes until her death, after a hernia operation, in 1910. She was a wonderful, warm-hearted old lady and her whole family helped in her work and loved her. After her death her son sent a tribute to his mother to *Nature* and to *Knowledge*.

3. *William Curnow (1809–1887)*. One of Holmes's most immediately likeable correspondents was the market gardener, Wm. Curnow, who lived in Penzance and wrote to Holmes from 1868 until just before his death. Despite his very hard-working life, he had many friends locally and others who visited him from more distant places and were taken out by him to hunt for mosses and lichens. He speaks of Broome, Crombie, Babbington, Carrington and Pearson, all of whom also knew Holmes and corresponded with each other. He was primarily a hepatologist and, in his first letter, told Holmes that he could not help with lichens or sea-weeds. However, this was later disproved by his detailed

descriptions of lichens to be found near the Lizard and by his accidental find of a rare sea-weed—*Gigartina pistillata*—on flat, dirty rocks. He lamented the loss of habitats for mosses caused by drainage and tree-felling. He was obviously a good general botanist: in Letter 19 he spoke of sending Holmes a box of ferns and in the next letter of 70–80 species of bramble being sent to him (Curnow) for identification. Two or three times he refers to his collection of mints and to expeditions to Wales to collect mosses.

The glimpses one gets into his work—taking gooseberry cuttings, going to market in Falmouth and Truro, having twelve men to supervise and only one son to help, selling twenty tons of Somerset apples, being bruised by a turning waggon—are very interesting and one sympathizes with him over the loss of four tons of glass from his son's greenhouses in a terrible hailstorm in 1886.

Like Holmes, he was always ready to welcome friends and assist them with their studies. He thanked Holmes for his friendship over the years and for the charming details of his letters. He was very grateful for the £5 paid by Holmes for his two books of hepaticae, and wishes he could have given them as presents. Towards the end of his life his finances were in a bad way. (cf. Letter 20)\* Letter 21 describes how he lost £500 by standing guarantor for his son in his manure business; his son used the money for other purposes and Curnow was quite heart-broken by the whole affair, and by having to face his son's creditors. Ten years later, in 1886, his landlord wanted the rent for his land paid half-yearly and would not accept the usual rent of £2.50 at Christmas, having apparently been previously friendly and reassuring to Curnow in his difficulties and knowing what good friends Curnow had. At last, however, his landlord gave him notice and Curnow laments having to sell his fruit-trees and leave the land which he had been cultivating and improving for the past 50 years. He spoke in the same letter of emigrating to Australia to join his brother, although he was already 77. It is not clear from the correspondence whether or not he did this. He was a much loved man. After his death Richard Tellam, another Cornish naturalist and correspondent of Holmes, suggested that another distinguished friend, John Ralfs, President of the Penzance Natural History Society, should be asked to write a life of Curnow (Letter 30–28th March 1887).

\*The end of this letter mentions the heavy losses suffered by so many people after the failure of the Cornish banks.

4. *William Mitten (1819–1906)*, ALS 1847. In some ways William Mitten's letters resemble those of Curnow. They knew each other and corresponded, although Mitten did not belong to the circle of Cornish naturalists, but was a pharmacist with his own business in Hurstpierpoint. Like Curnow, he was a bryologist primarily, but he shared Curnow's wide-ranging interest in all kinds of plants. He seems, if one can judge, to have had more money and leisure than Curnow and he travelled widely collecting plants: for example, he found *Stereoeon canariensis* in Madeira, many hepaticae between the Rhône and Lucerne, *Philonotis* and all sorts of campanulas in Switzerland and mosses in Rum, as well as along the Kent coast from Deal to Margate: he found a *Dianthus* near Deal Castle, but remarked that Kent otherwise seemed to be a botanical desert, being very wooded and full of hedges! He was interested to see that bills had been posted inviting tenders for the removal of Deal Castle. Apart from his

delight in finding rather rare mosses (e.g. *Bartramia stricta* at Maresfield, *Hypopterygium viridulum* and *Lophocolea alata* at Combe Martin), he was fascinated by such things as the Chinese method of budding white thorn and quince in water. In 1897 he sent Holmes two young leeches found in mud (he used to catch them in his pond in a handkerchief tied to a stick) and a cocoon to hatch. He had a telephone installed and “expected to be routed out by it”. Like Curnow, he was surrounded by friends: one of them, a Mr Davies is described as being “off his head”, trying to sell his microscope and saying he is starving—“very unfortunate for his wife, whom he married recently when he was still sane”. Another widowed friend, a Mrs Smith, was greatly helped by him in selling her husband’s books, (a copy of Jenner’s *Algae* went to the British Museum) and helping her to move. After his death, his daughter sent Holmes a biographical note about her father: he had been proud of his close friendship with Bishop Hannington, with whom he went on many flower-hunting expeditions, and also of his discovery of *Carex montana*, at Eridge, as a result of which Borrer gave him a microscope. He helped Holmes by identifying mosses, his letters (written between 1868 and 1906) were always full of interest and made very few demands on Holmes’s time. His collection of mosses were purchased for the Herbarium of the New York Botanical Gardens.

5. *George W. Traill (1836–1897)*. Perhaps the most remarkable of all the correspondents was George Traill, who wrote about 108 letters (some are only fragments and may be part of others) between 1883 and 1896, all careful and full of fascinating detail; it is impossible to give an adequate idea of their richness in any summary.

Traill was a clerk in the Standard Life Company in Edinburgh, always worked long hours (these were actually increased in 1894), seems to have had only two weeks holiday a year and one day off at Christmas and one at Easter, and yet he was one of the greatest authorities on Scottish algae. Despite bad health, he was an indefatigable collector and worker, and his first letter to Holmes in 1883 says that he is soon to move from Portobello to Joppa and would like an account of the differences between the algae in the Firth of Clyde and those in the Firth of Forth. He thinks he will have plenty of time for collecting in Joppa, as he knows no-one there. That, indeed, proved to be the case. He had at that time just named 1000 species of algae for the Free Church College Museum. His letters are full of detailed accounts of his finds, their habitats, their preference for shade or otherwise. He describes how he took out Mr Rattray\* (recently appointed to be in charge of the Marine Station and greatly helped by Traill in this project) scraping diatoms off the roof of a cave at Kincaig by means of a spoon strapped to a stick, and algae from deep pools. Batters and Henderson had just given *Callithamnion plumula* to the Ark and he had himself found *C. gracilissimum* near Kincaig, which was a new species to Scotland.

Traill worked a lot with the Hon. Arbuthnot and went for a holiday to Orkney with him in August 1887: Letter 58 is 14 pages long and packed with details of their long walks to various bays, a perilous boat-trip to Romsay and a severe thunderstorm, taking 10½ hours to get back 16 miles from Shappinsay to Kirkwall. Five days of the holiday were spent on diatoms and only nine were left for algae. Letters continued regularly, every month or two, until 1892, when the family moved to Edinburgh to live in furnished rooms (they let their

house in Joppa) in the hope that Mrs Traill's health would improve in the less exposed situation. His own health was very precarious and already in 1890 he had not felt well enough for collecting, although he continued all this time to correspond with many other algologists and to pass on information from one to the other, acting as a sort of central communications point between them all. Despite the fact that his own list of Orkney species was shortly to be published he says that he is daunted by the enormous amount of work to be done there still. In 1892 he gave his collections to the Herbarium of the Edinburgh Botanic Gardens, although in a letter dated 16th November 1893 he remarks that there is no-one there with much knowledge of algae. He was confident that Professor Balfour would give his collections every care and respect. In September 1894 he was helping the Keeper of the Herbarium to sort out his collections of algae by working five hours on Saturdays, 1½ hours on other week-days and eight on every office holiday. He complains, in the same letter (98), that he is getting older and weaker (he was 58) and will soon need a cab to get to and from work. However, the same letter also contains a marvellous account of his last August holiday with his nephew and family on North Ronaldsay: he found only common algae, but saw many great and common spotted seals; he saw three cross-bills, two females, which were shot, and one male which choked on some coarse barley and had to be stuffed. In his nephew's garden on the island, *Phormium tenax* grew 10 ft tall, and there were many different *Veronicas* from Australia. Letter 95 also describes the plants in his nephew's garden, which had come from his step-brother in Australia, Walter Traill of Stewart Island; he describes Walter as "a real rolling-stone, who has never been persuaded to collect algae", but who has a garden full of rare plants, where veronicas and *Olearia traillii* flourish. He had been a store-keeper, a seal-hunter, an oyster-catcher, a boat-builder and was, fortunately, unmarried.

Like a bolt from the blue, the postscript to this letter explains that the reason for his holiday with his nephew was his extremely unhappy domestic situation, caused by his wife's wastefulness and extravagance and her attempts to turn everyone against him. His three children were hardly speaking to him and his elder son, aged 19, would not pay for his keep and was very insulting to him. Up to this point, all the letters had seemed to be cheerful and it is sad to think that his private life was so unhappy. Holmes, as always, evidently tried to help with counsel and advice. Traill replied a week later (September 19th, 1894) thanking him, but fearing that his problems were too deep-seated to be helped: he went on to describe a sort of fit of madness on the part of his wife at 2 a.m. one night, when no help was available; in the morning she had forgotten all about it. By September 29th things were a little better and his son had entered into an agreement to pay for his board and to be civil to his father, "as the law requires". Thereafter there is a gap of 16 months until his next letter in Jan. 1896, which brings news of insomnia, depression and bronchitis. He was missing his work on sea-weeds, but glad that students were using his collections. The family moved inland to Cupar and, by December, his health was a little better, although he could not go out without getting chilled and exhausted, despite following Holmes's advice on woollen underclothes etc. This may have been his last letter to Holmes, as the remaining fragments of letters seem to have been written earlier. He died in 1897.

### Conclusion

The above account is no more than an attempt to give some glimpses into late Victorian natural history, as practised by Holmes's correspondents. It is a privilege to be able to read first hand accounts of their expeditions and discoveries, of their painstaking examination and classification of specimens, of their exchanges and friendships with each other. It is not possible for a lay person to assess the scientific value of their work, nor of their contribution to the foundations of modern knowledge of their subjects. Moreover, the interest of many of their letters lies in the detailed descriptions of species, and one cannot summarize details. But it is hoped that these notes will have given some idea of the interest of the correspondence.

D. D. FURLEY

\*The first marine station in the British Isles was officially opened in April 1884. It consisted of an old lighter called the 'Ark' moored in the flooded Granton Quarry (previously excavated to obtain stone for the building of Granton Harbour and by then contiguous with the Firth of Forth) and a nearly derelict tannery. The lighter had been converted into a laboratory by adding a superstructure and arranging a continuous circulation of sea water, while the two storey tannery had tanks installed on the ground floor and a museum and library (donated by C. Wyville Thomson) above.

The station was started by Dr John Murray (1841–1914, who had been on the Challenger Expedition of 1872–1876) after receiving donations from his friends of over £3,000, a steam yacht ('Medusa') equipped for dredging and the assurance of the Scottish Meteorological Society of an annual grant of £300.

Murray who assumed the title of Director then appointed J. T. Cunningham to the post of Superintendent and Captain Alexander Turbyne to be keeper of the 'Ark' (on which he lived) and skipper of the 'Medusa'. He also recruited three other young scientists: J. R. Henderson as zoologist, John Rattray as botanist and H. R. Mill as chemist and physicist.

However, the North Sea soon proved too hazardous for the 'Medusa' so that autumn (1884) Turbyne took her through the Forth and Clyde Canal into the waters of the Firth of Clyde where she resumed dredging under quieter conditions. On the advice of David Robertson (who by that time had retired to live in Millport) Murray decided to found a branch of 'his' marine station in the Firth of Clyde, on the island of Great Cumbrae. Accordingly in the following spring the 'Ark' was towed from Granton to Grangemouth then through the canal and down the Clyde to Port Loy at the entrance to Kames Bay, Millport where she was permanently tied up.

During the next twelve years the 'Ark' not only served as a centre for hydrographic and biological surveys of the Clyde sea area but also featured prominently in the life of Holmes and several of his algologist friends. Coincidentally it was the parent Marine Station at Granton (closed 1903) which featured in the life of another of Holmes' correspondents—George W. Traill. The 'Ark' also housed a public aquarium (admission one penny—during the spring and summer of 1889/1890 it regularly received between 5/- and 7/6 per day) and on Glasgow's Spring Holiday of 1898 it entertained 355 visitors (see above). The 'Ark' was unfortunately broken up by the great storm of December 20th 1900.

Meanwhile David Robertson had managed to promote the building of a permanent Marine Station at Millport. The building which was finished a year after his death in 1897 was subscribed to by both Holmes and Batters while Hannah Robertson presented her late husband's collections to the new Marine Station. At the conclusion of the opening ceremony Sir John Murray handed over the 'Ark' to the Management Committee.

David Robertson was an enthusiastic freemason who also had a vigorous correspondence with Anton Dohrn on marine biology and who wrote to P. H. Gosse on sea anemones and to I. O. Westwood on sessile-eyed crustacea. He had the honour of having one sponge, two foraminifera, four ostracods, two copepods, two amphipods, one marine mite and one fossil 'polyzoan' named after him. He is also credited with having discovered 109 new species (mostly living, a few fossil) chiefly crustaceans (ostracods and copepods) and sponges.

### References

- STEBBING, T. R. R., 1891. *The naturalist of Cumbrae, a true story being the life of David Robertson*. London; Kegan Paul, Trench, Trübner & Co. Ltd.
- MARSHALL, S. M., 1987. An account of the Marine Station at Millport. *University Marine Biological Station Millport, Occasional Publication 4*: 133 pp.

Editor

## The survey of microscopes and memorabilia

Our erstwhile Secretary Theodore O'Grady, was right to say that there has neither been the staff nor the time to catalogue the Society's "other treasures" (O'Grady, 1987). But the Library committee were able to offer some funding towards a survey of instruments, and—carried away by the momentum, and mindful of the need for our possessions to be properly documented—I have now completed a survey of these artefacts which is available for consultation.

The importance of our reference collections was summarized in my earlier paper for *The Linnean* (Ford, 1987), and they cannot be overemphasized. The basis of taxonomy is to refer to the type wherever possible, and the fact that we house the vast collections of Linnaeus is a matter of the most fundamental scientific importance. There is a group which looks after them, the Collections Curatorial Committee.

Yet for the other memorabilia there is no such responsibility. And what a collection we have! There are microscopes, medals, photographs and seals,\* all of them providing a unique insight into the early days of our activities. In recent years, we have had a number of scrolls, illuminated addresses and models which have added to the breadth of the collections. The grant support offered by the Library Committee was intended to cover microscopes, of course; and of these we have many interesting examples. The microscope of Robert Brown has been put back to working order, and is described elsewhere (Ford, 1982). We also have George Newport's botanical instrument, which fits into a neat mahogany case less than 23 cm in length. But we also have Newport's chemical balance, and a selection of his silver spoons too.

In the Executive Secretary's office there is a fine binocular microscope, of contemporary design, particulars of which appear on the new catalogue. This is meant for the use of Fellows. But also bequeathed for our use were two instruments which are now missing from the Society. These are a microscope by Andrew Ross numbered 1969, fitted with a fine Wenham binocular attachment. This microscope, made about 1860, by now has a considerable value. And another magnificent acquisition was the James Smith monocular microscope, dating from the 1840s and fitted with a long body tube. Both were given to the Society for the benefit of the Fellowship in perpetuity, or that seems to have been implicit in the accompanying documentation.

However, just twenty years ago they were both disposed of, for a nominal sum, to a microscope collector. The microscopes needed repair, and it was felt that their sale might make more commercial sense. The purchaser died some years ago and is known to us, so some attempt will be made to see whether the microscopes can once more be associated with our Society.

There are many early microfilm copies of important sources, including Pennant's *Tour of the Continent* and the *Plantarum Polline* of Drische. Relics of an earlier age of scientific teaching include parts for carbon arc projection units, and a large number of slides. In each case these have been listed under the heading of the container in which they were found.

An unusual relic is the box of wartime shrapnel fragments which were found

\*All these items are called 'Artefacts' in the Byelaws! Since this paper was compiled, Brian J. Ford has been appointed to the Library Committee of the Society to act as surveyor of instruments and to advise on our 'other' collections—Editor.

during the First World War. The accompanying piece of paper suggests that they were located in our library following an air raid on 25 September 1917.

Of anecdotal interest is Linnaeus's indiarubber eraser. We also have an impressive Seal Cabinet measuring  $280 \times 230 \times 310$  mm in veneer, and containing about 180 seals which are mostly identified with the owner's name. As befits a Society with a long record of lectures and meetings, we have a selection of gavels: one of these has turned out to be a nutcracker, now put to a more academic use.

In an era when the 'Trail-Crisp Award' is well established, it is intriguing to see that we hold the original dies for the Trail and the Crisp Awards when both were separate. There are voting boxes, too, with the cork balls which were dropped into 'yes' or 'no' trays through an aperture in the side. I have catalogued seventeen inkwells, in crystal glass or pewter, and have re-discovered the Society's flag.



Illustration from Wallace's *Malay Archipelago* showing the capture of the snake from the roof of Wallace's hut: the skin is in the Society.

The microscope of Robert Brown—described in Ford, 1982—is not the only relic we have of that great investigative botanist, for his walking stick resides in an upstairs gallery, secure in a long glass case. The Stick originally belonged to James Brown, the father, and was given to Robert as a memento. He passed it in turn—on his death bed—to Dr Francis Boott in June 1858.

The most recent acquisitions have arrived during our Bicentennial celebrations. They include scrolls and addresses from learned societies, and perhaps the grandest of all—in addition to being one of the most recent—is a splendid pendant badge of honour for our President. Hung on a dark green neck band and plated with gold, it was presented by the Association of Applied Biologists. On the day of its arrival, our current President received it with gratitude and added to our collections. But it was meant to be worn, and for

future meetings it will adorn the neck of the incumbent, rather than the dark recesses of our storage cupboards.

Our memorabilia collection will provide a useful archival resource for students of the history of biology. It covers instruments, personal relics, glassware and silver, slides and paintings. My personal wish has been to see a survey safely in the hands of the Council so that we know for ourselves what we hold. If the survey becomes interesting for students in the future then I shall be doubly satisfied that our possessions can become known to a yet wider audience. That is, after all, why we have them.

### References

O'GRADY, Th., 1987. Correspondence. *The Linnean*, 3 (3): 22.

FORD, BRIAN J., 1987. The Society's other treasures. *The Linnean*, 3 (1): 24–26.

FORD, BRIAN J., 1982. The microscope of Robert Brown. *Microscopy*, 34: 406–418.

BRIAN J. FORD

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## George Bentham reports a storm in the French parliament

In the bicentenary year of the French Revolution, it is interesting to read George Bentham's letter to his father, recounting a revolutionary scene in the French parliament in 1823. During a debate over the current war with Spain, Jacques Antoine Manuel (1775–1827), the most violent member of the extreme left, made a speech fraught with allusions to the revolution. Bentham aged twenty-three, was staying in Paris at the time and following events closely. The French had sent a military force, under Angoulême, to intervene in the Spanish revolution and restore Ferdinand VII to the throne. France was aware of the strong disapproval of England and Bentham found his situation, as a francophile Englishman, very awkward.

There were several inflammatory scenes in parliament, between Manuel and the Ultras (Royalists), until he was finally ordered out of the Chamber. He was carried home in triumph by the mob, many of whom were arrested. The trouble spread and on one occasion, the passengers on the Chartres coach, on reaching Versailles, were made to get out and lie face down on a dunghill, asked if they were Ultras or Liberals, and told, 'voilà la prélude de la guerre d'Espagne'.

The final act of the drama is recounted in Bentham's words, with some punctuation added, as he admitted that he had "scribbled as usual, without minding how he made up either words or sentences".

The sitting to-day in the Chambres des Députés, has been the most extraordinary that has yet been or perhaps ever will be seen. A deputy resisting openly the government! At half past one, the côté droit and the centre were seated, the President already in his place and the tribunes of course as full as they could hold, when 2 or 3 of the gauche appeared following closely to one another. Immediately behind them Manuel, followed by the whole of his party, who all went and took their usual places. The President, it is said, turned pale, and the surprise and indignation felt by the whole assembly, even by the tribunes and centre gauche, spread a dead silence for some minutes over the House. The President, after some

private conferences with several députés and after the Ministers, who had been introduced, had again retired, rang his bell, rose, read the article of the règlement, by which strangers were excluded from the interior of the House, and addressing himself to Manuel, begged him to retire, otherwise he should be obliged to compel him so to do. Manuel rose and answered, "J'ai dit hier que je ne sortirai d'ici que par la violence, et je viens tenir parole". The President then said the sitting should be interrupted for an hour, whilst he gave the necessary orders. The droite and centre droit immediately retired with the President. The gauche and centre gauche remained.

Presently the door opened and the chef des huissiers (head usher) appeared at the head of his huissiers, went up to Manuel, and after reading his orders, said, "M. Manuel, je vous somme de vous retirer, autrement, je serai obligé d'employer la force armée". Manuel answered, "Non, Monsieur, je ne sortirai pas". The huissiers retired and presently returned with a chef de bataillon of the line and five or six national guards. At this sight, the gauche rose in a rage, gesticulating and screaming in the most furious manner. Manuel again refused to go out and the chef de bataillon ordered the guards to conduct him out. The gauche repeated their cries and threats, holding up their fists at the guards, and the sergeant, whether from fear or from unwillingness, refused to his duty. The gauche burst out in applause, which was re-echoed by the tribunes. The national guard retired, and in a few minutes appeared a colonel chef d'escadron and a lieutenant of gendarmerie at the head of twelve or fifteen gendarmes. The colonel went up to Manuel, saying, "M. Manuel, je vous somme de retirer et en cas de votre refus de vous y contraindre; . . . je serais fâché d'envenir a cet extrémité, mais je ferai mon devoir". The tribunes again applauded. Manuel answered, "Je ne céderai qu'à la force", and the colonel, turning to his men said, "gendarmes, empoignez-moi cet homme-là". The lieutenant advanced, seized Manuel by the collar and dragged him out. The gauche precipitated themselves on the gendarmes, wrestling with them. One député had almost disarmed a gendarme. They however did their duty and conducted Manuel out of the House, followed by the whole gauche.

The President returned with the droite and centre droit (the centre gauche remaining in their places), the ministers entered and the séance began by a speech in favour of the law for supplies. M. Giroudin (the only member who had remained on the left) was next called. He ascended the tribune and began, "Messieurs, je suis maintenant trop ému au moment de l'attentat . . .", the droite burst out in indignation. The President observed to M. Giroudin that it was improper to call an act of the house an attentat. M. Giroudin answered, "En ce cas, Monsieur, je n'ai plus rien a dire", and retired; another was called who was absent; another could not speak. In short they were all absent or trop ému, so that on the demand of one of them, the meeting was adjourned to tomorrow, when I suppose they intend beginning again their clamours.

George Bentham has written this graphic account of a stormy episode in the French parliament, probably not well known in England.

MARGOT WALKER

## John Ray

John Ray (1627–1705) was born in Black Notley, near Braintree, Essex, the son of the village blacksmith. He was educated at Braintree Grammar School and, by virtue of a scholarship, at Catherine Hall (now St Catherine's College) and Trinity College Cambridge.

His interest in the natural world began as a hobby at a time when the study of nature was new and totally unrecognized. He realised that different plants grew in different localities and a period of enforced leisure, after a bout of illness, gave him the opportunity to explore this theory by studying the flora of Cambridgeshire. He published his first book on this subject in 1660.

When he left the University he widened his interest to encompass the whole of the natural world. He spent many years travelling around Britain and the Continent in the pursuit of knowledge before returning to Braintree in 1679.

John Ray's field studies in the U.K. and abroad enabled him to write the first ever scientific books on natural history, including recording the entire natural world. But natural history was not Ray's only area of study: he lectured at Cambridge, wrote the first book of English proverbs and English dialects, wrote a travelogue of his journey abroad and even a dictionary in English, Latin and Greek.

John Ray's greatest achievement is the three volume encyclopaedia *Historia Plantarum* in which detailed descriptions of over 20,000 different species of plants are recorded. His system of plant classification formed the basis of the Linnaean method of grouping species which is used today.

1986 marked the 300th Anniversary of the publishing of *Historia Plantarum* and also the founding of the John Ray Trust. The principal objective of the Trust is to raise money for scholarships and bursaries to support research and academic achievement in all aspects of natural history. Thus, students today will benefit from the Trust as John Ray was helped by his benefactors, carrying on a long tradition of educational sponsorship, see p. 6. In addition, it is aimed to provide museum and study facilities in the town of Braintree so as to ensure an increased awareness and appreciation of the work and life of John Ray. The Trust has also erected a commemorative statue in Braintree town centre.

John Ray was highly regarded by his contemporaries, but his genius has been neglected outside of botanical circles and the Trust aims to restore Ray to his rightful position as one of England's greatest scientists.

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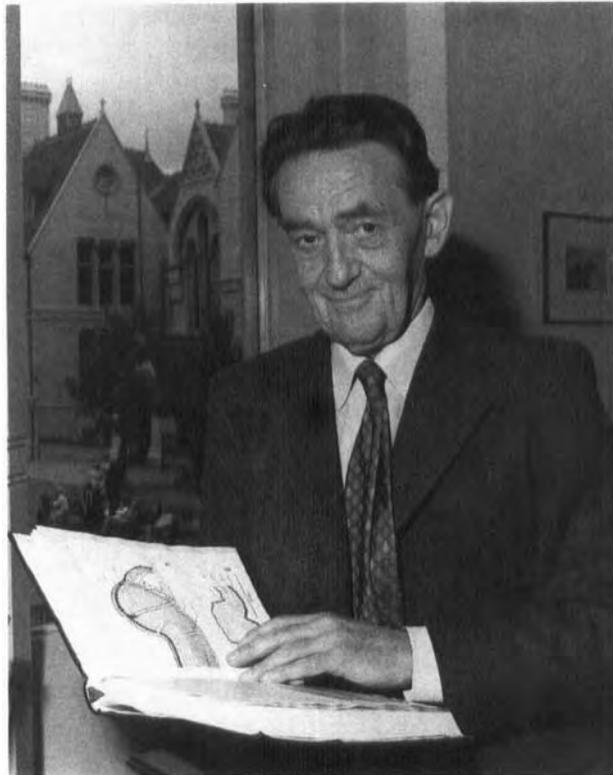
## OBITUARIES

### Ralph Dennell (1907–1989)

Ralph Dennell, Emeritus Professor of Zoology in the University of Manchester died on 16 February 1989 aged 81. Educated at Leeds Grammar School and graduating in the classical, largely marine tradition of comparative morphology and evolutionary studies under Walter Garstang at the University of Leeds. A short paper on the feeding mechanism of the burrowing amphipod *Haustorius arenarius* published whilst he was a post-graduate at Leeds, paved

the way for him to join Graham Cannon at Manchester as Grizedale Scholar (1932). His papers on the feeding mechanisms of the diminutive *Diastylis* and *Apseudes* were in the Cannon tradition but his drawings with stipple and hatch were executed in quite an individual manner and some say they were the ultimate perfection of the art which Cannon had developed.

At Imperial College (1937–1946) Dennell was responsible for teaching the entire animal kingdom but he found time, between phyla, so-to-speak, to examine the photophores of luminescent crustaceans collected on the Discovery Expedition. His descriptions of their histology and cellular



Beyer Professor of Zoology Ralph Dennell examining a bound collection of his papers presented to him on his retirement from the chair, September 1974.

morphology was a model of precise and elegant writing and illustration. He soon came under the influence of the applied entomological work at the field station at Slough which was stimulated by wartime food shortage and the concern with insect attack on stored grain. His first contribution in this area was a paper on the feeding mechanism of the grain weevil *Calandra granaria*. Later his research moved from morphology into the realms of histochemistry and experimental physiology and an investigation of the process of sclerotization in the cuticle of the flesh-fly maggot and its transformation into the puparium.

The cuticle work had already excited much interest when Dennell returned

to Manchester in 1946 as Reader in Experimental Zoology. Here he developed innovative methods for following translocation of substrates and changes in oxidation-reduction potentials *in situ*, using simple, primitive, but elegant techniques. All this notwithstanding, setting-up an entirely new course in Experimental Zoology, designing and equipping a new laboratory and building constant temperature and humidity rooms to his own specifications in an old lift shaft.

At a high-point relatively early in the cuticle work Dennell returned briefly to a previous interest by a visit to Bermuda to study luminescent decapods on a Leverhulme Fellowship. He tested predictions made from his work on the Discovery material, made an interesting excursion into the anatomy of *Amphioxus* and made fruitful contacts with leading insect physiologists in the States working on the control of insect growth and metamorphosis. He returned to find he had been elected to a new chair of Experimental Zoology (1948).

There followed a series of papers of great distinction on the hardening and darkening of the insect cuticle. During this quiet and productive time in the late forties and the fifties, his research students were enjoying working with him in an exciting new field; they were privileged to learn most from his example. We were consulted and appraised of all set-backs and successes; perhaps we were merely foils on which he tried-out his ideas and tested his conclusions, but inevitably we gained by witnessing his scientific mind at work. He listened to our own problems, taking away notes and sketches saying "I'll go smoke a pipe on this" and return presently to offer his judgements.

In 1963 (the year of Robbins) Dennell took over the reins of the Department on the death of Professor Cannon and was translated to the Beyer Chair and Head of Department. Almost immediately he presided over an almost exponential rise in numbers of students and staff. Although his research continued, a large part of his energy was absorbed in moulding an entirely new Department: a new Honours School of Zoology, a new electron microscope suite, lectureships in new fields, behaviour, physiology, entomology, and new laboratories were annexed in other buildings on the campus. By the early seventies the annual output of graduates had increased nearly four times and the budget had quadrupled; Dennell was holding together operations in no fewer than seven separate buildings.

Such expansion and diversification would have posed severe problems for the older type authoritarian regimes but now, mainly by inclination but also congruent with the new academic climate, democratic consultation was the order of the day. Dennell created an atmosphere in which each member of staff felt that his or her idea had good airing, and decision-making appeared to originate from the Departmental Board or from one of its committees; in fact, many of his policy decisions were heralded by his dropping-in for a chat; somewhere amongst talk of zoology, politics, or the latest in automotive technology, the matter had been broached and agreed upon with no more than an extra puff of the pipe.

It was inevitable that Dennell's facility for guiding his fellow academics to make realistic decisions with a minimum of fuss should be commandeered by the higher echelons of the University. He served as Dean of the Faculty of Science and as Pro Vice-Chancellor from 1964–1967. He had chaired the

Museum Committee from 1963–1974 and also served on the North West Regional Health Authority. He was delighted to return to his research after his formal retirement in 1974. His interest came full-circle to a concern with pure form; he was fascinated by the relation of the ‘weave’ of fibrillar structures to the optical appearance of cuticular laminae. He pursued this research by examining sections of fractures in different planes up to the very limits of the resolving power of the light microscope.

Ralph Dennell was a keen motorist; he and his wife navigated their way along minor roads throughout Europe. He is survived by his wife Dorothy, to whom we offer our condolences whilst gratefully remembering her kindly supportive role and the friendly hospitality which she and her husband afforded to all their colleagues in their own home.

J. GORDON BLOWER

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**Margaret Ursula Mee, M.B.E.  
(1909–1988)**

Margaret Mee, one of the greatest botanical artists and woman explorers of the century, died in a car crash in Leicester on 30th November, 1988. She was born in Chesham, Buckinghamshire in 1909 and was trained at the Camberwell School of Art. Although always a lover of nature, it was not until she moved to Brazil in her mid-forties that she really began to paint flowers seriously. Surrounded by the diversity and beauty of the relatively undisturbed forests of Brazil of the 1950s, she soon began to paint the flowers around her. In 1956 at the age of 47, after living in Brazil for four years, she took off on the first of her fifteen Amazon expeditions. Her last expedition was in the year of her death, in May, 1988. Her fascination with the Amazon plants and the Amazon ecosystem was immediate, and she began to portray them to produce what is now a folio of about 400 paintings. Two magnificent folio editions of her paintings have been published, *Flowers of the Brazilian Forest* in London, 1968, and *Flowers of the Amazon* in Rio de Janeiro, 1980. The details of her fascinating life were recently published in a book based on her diaries, *Margaret Mee: In Search of Flowers of the Amazon Forests* (edited by Tony Morrison and published by Nonesuch Expeditions, Woodbridge, Suffolk).

Margaret’s paintings are both aesthetically pleasing and so accurate botanically that various new species have been described from some of them. She was especially fond of painting orchids, bromeliads and heliconias but, when asked on a radio broadcast shortly before her death what was her favourite plant to paint, she replied “*Clusia*”. She also illustrated various other attractive trees and shrubs such as *Gustavia* and the Amazon Cannonball tree (*Couroupita subsessilis*). However, she was obsessed by the desire to paint the rare night-flowering epiphytic cactus *Selenicereus wittii* that grows on trees of the flooded forests along the banks of the Rio Negro. I remember meeting her on the return from her 1977 expedition on a small floating dock and being immediately presented with a fruiting specimen of the cactus. She vowed to

return to catch the plant in flower. Amazingly, she was successful on her last expedition in May, 1988. Her diary recounts how this intrepid woman was hoisted to the roof of a small launch and observed and sketched the flowers throughout the entire night. The result is two beautiful paintings of the moonflower cactus.

I often wondered how this deceptively frail looking woman survived the hardships of travel in the Amazon. As I followed in her footsteps in many small tours, I would hear tales of her adventures, bouts of sickness and of course, of her friendliness to the local people. Each Amazon expedition drew her nearer to the environment and to its indigenous people. She began to paint when the Amazon was relatively untouched wilderness but, during her years of Amazon travel, the politics changed and she saw the destruction of her beloved forests begin in earnest. Her involvement as a defender of the Amazon forests grew in proportion to the increase in deforestation and abuse of the Indian population. In her later years, she was known as much for her passionate pleas for Amazon conservation as for her paintings. No-one who attended her November 1988 lecture to the Royal Geographic Society in London will ever forget that experience as she both recorded her adventures and pleaded for the preservation of the Amazon rainforest. Her contribution to conservation was great and was respected in Brazil as it was in the U.K.

Margaret liked to pick the brains of any visiting botanists and she counted many of the best known as personal friends. That she absorbed much botanical knowledge is obvious from the accuracy of her paintings. I certainly thought of her, not only as an artist and explorer but as a botanical colleague. It is a fitting tribute that such plants as the bromeliad *Neorcyelia margaretae* and the orchid *Sobralia margaretae* were named after Margaret Mee. In addition to her paintings and books, her memory will live on through the Margaret Mee Amazon Trust which is active in both Brazil and the U.K. and seeks to provide scholarships for young Brazilian students of the Amazon as well as to purchase her Amazon collection of 60 paintings for permanent deposit at the Royal Botanic Gardens, Kew, where they were on exhibition from November 1988 to April 1989. Her paintings and the example of her life will encourage and inspire us to continue the struggle to preserve the biodiversity of the Amazon rainforest. It is ironic that a car crash in Leicester should take from us the explorer who survived the rigours of fifteen Amazonian expeditions.

GUILLEAN T. PRANCE

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**William John Webb  
(1900–1989)**

Unfortunately it was later in his life before I got to know the legendary William Webb because of my special interest in the species plants. I felt it a special privilege to be invited to his home and quite a thrill to meet the great man I had heard so much about in my early years in the Society but who was never seen.

He told me he had a great interest in botany early on in life but his father persuaded him to study engineering as there was no future in botany.

Early in his study of plants he was attracted to the pelargonium which he studied with scientific zeal all the rest of his life. He used his engineering skill to design and build his own greenhouse in his garden in West Ealing. His greenhouse staging was filled with plants of the species *Pelargonium*. He was very knowledgeable about natural soil conditions and experimented with suitable soil mixtures to use at home. He was interested in the rate of germination of seeds and tended to allow his plants to grow as near to natural wild formation as possible, in his greenhouse.

In his early years he did some excellent water colours including anatomical diagrams showing the classical features of the nectar tube, so important in the classification of the plant. Later on, he applied his scientific mind to colour photography and the excellent quality of his drawings and photography can be seen in his book *The Pelargonium Family* published in 1984.

I know that he wished to leave his collection of plants to Kew Gardens but disaster struck a few winters ago when snow caved in the roof of his greenhouse and all the plants were lost.

Mr Webb was fortunate in having very caring neighbours in West Ealing—the Formesyn's. Mrs Formesyn informs me that he obtained his B.Sc. at University College, London. His first job was selling and demonstrating wireless sets in the early days of wireless, but he was soon invited to join the Southern Railways Board after demonstrating a wireless to the chairman.

He rose to become the chief electrical engineer to British Rail and was in charge of the programme of electrification of the railways.

He spoke many languages—Swedish, Norwegian, Russian, Dutch and French, and had many interests such as horology and photography but his main hobby was botany.

In his late years he suffered a disabling stroke but fought back from it with sheer determination and willpower.

He was a much loved patient in the last months of his life at Ashley Lodge Nursing Home.

HELEN BOWIE

### **Gwynne Vevers (1916–1988)**

Gwynne Vevers, one of Britain's most distinguished zoologists and thinkers, died suddenly on 24 July 1988, aged 71. He became a Fellow in 1956, Member of Council 1958–1967, Vice-President 1959–1960 and Zoological Secretary 1960–1967.

Henry Gwynne Vevers was born on 13 November 1916 at Girvan, Ayrshire, the son of Geoffrey Mair Vevers, F.R.C.S. and Catherine Rigby (née Andrews). He attended Hill School, Hampstead, from 1925–1930, and St Paul's School from 1930–1935. His interest in the natural sciences began early, at school, with a Junior Foundation Scholarship (1931), Smee Prize (1932), and becoming Librarian—later Treasurer—of the Field Club. He exhibited collections at the meetings of the Field Club, including fossil brachiopods, mosses and butterflies; he took two cases of the butterflies to his confirmation

service at St Paul's Cathedral, and left them under his chair—perhaps a result of his experience!

From school in 1934, Vevers won a Science Exhibition to Magdalen College, Oxford, and in 1935 was a Kitchen Scholar and Leaving Exhibitioner from St Paul's. At Oxford he read Natural Sciences from 1936–1938, graduating B.A. in 1938 with the Christopher Welch Scholarship and Edward Chapman Research Prize — “a second prize was exceptionally awarded to H. G. Vevers for work in Botany, the main award being to P. B. Medawar, Senior Demy for work in Pathology”.



G. Vevers. Photograph courtesy of M. Lyster, Zoological Society.

Gwynne received his M.A. in 1947, and in 1949, the D.Phil. for his thesis on “The Experimental Analysis of the Feather Pattern in the Amherst Pheasant *Chrysolophus amherstiae* (Leadbeater),” later published in the *Transactions of the Zoological Society of London* in 1954 (Vevers, 1954): a most difficult and meticulously reported series of experiments revealing his interest in colour and pattern and which was to lead to our close friendship and long collaboration.

At school and at Oxford, Vevers took part in many expeditions—official and private—e.g., a gannet census on Ailsa Craig with James Fisher, Malcolm Stewart and Frank Fraser-Darling; with the Oxford University Exploration Club to Greenland in 1936 to study the heathland ecology at the head of Ström fjord resulting in an extensive collection of plants (now in the Natural History Museum.) He led the 1937 Faroes Biological Expedition studying the ecology of animals and plants—another collection of plants now in the Natural History Museum.

Travels in Norway and the Faroes in 1938 and 1939 made many friends – incidentally Vevers learnt fluent Norwegian, Icelandic and Faroese – and he sent reports and photographs of German shipping and naval vessel movements and charting to the Ministry of Defence (Naval Intelligence Division at the Admiralty), and so started the intelligence work which continued during and after World War II, and in his service in the R.A.F. (1941–1946).

In Iceland, Squadron-Leader Vevers photographed ice floes to find deep-water channels, and when the German battleship BISMARCK disappeared from Bergen Fjord, he predicted her position and confirmed it by sending reconnaissance aircraft. (This is of considerable interest in view of today's 'rediscovery' of the BISMARCK on the sea-floor off Brest.) Vevers was awarded the M.B.E. and mentioned in despatches—at the age of twenty-five.

From 1943–1944 Vevers worked in the Air Ministry under Wing Commander F. S. Russell, D.S.C., D.F.C. where they handled, interpreted and distributed ULTRA, the decyphered Enigma messages, and in 1945, he was in Germany to locate—and catch—senior German officers, among them Reichsminister Rust—who committed suicide!

In 1946, Gwynne joined the Plymouth Laboratory of the Marine Biological Association of the U.K.—again under F. S. Russell—as Administrative Bursar and Zoologist, and one day in 1947 I made my first visit to “The Lab” to try some experiments on the regeneration of starfish arms under the influence of carcinogens. I needed a hypodermic syringe (goodness knows why I hadn't brought one!), and was told that “probably Mr Vevers had one”. Within minutes, Mr Vevers appeared with a syringe and a small jar containing a small starfish in alcohol. “I wonder if *this* might interest you? This starfish, *Asterias rubens*, was the subject of a paper by C. A. MacMunn, who reported that the integument contained haematoporphyrin [(MacMunn, 1886)]. The animal was then known as *Uraster rubens*, and it was a long time ago—I wonder if he was right? I hear you are interested in pigments”. Blessed moment! Our first work appeared in a note to Nature (Kennedy & Vevers, 1953) reporting that the pigment of the integument of *A. rubens* is proto- and not haematoporphyrin.

Our happy and close association in and out of the laboratory continued at Plymouth during my holiday visits, and we made a survey of the pigments—especially porphyrins—of many of the marine phyla. When Gwynne left Plymouth in 1955 to take up an appointment as Curator of the Aquarium and Head of the Publications Department at the London Zoo (where his father had been Superintendent for many years, 1923–1948), our pigment work continued in my laboratory at Sheffield University with conferences in London in his quiet office by the canal. From marine pigments our work turned to the pigmentation of egg-shells and a survey was made of 108 species of birds, thanks to the Zoo and other collections: our last paper, on the pigments of the egg-shells of the Ratites is still in preparation.

Gwynne Vevers was an exceptional man who could have made his mark as a diplomat—though not in politics, to which he appeared indifferent; despite our closeness and that of our families, I have no idea what his religious or political views were. Although a very private person, he had the grace and charm which enabled him to meet all kinds of people and converse easily, albeit

with some introductory shyness. The staff at my laboratory looked forward to his visits, and my Chief Technician, who was very slow to warm to anyone used to say "He's an awfully nice man".

He is survived by his wife, Dr Barbara Vevers who is a consultant anaesthetist, and by his son by a previous marriage, Dr Geoffrey Vevers, a physician.

AVE ATQUE VALE! We shall not see his like again.

G. Y. KENNEDY

### *References*

- KENNEDY, G. Y. and VEVERS, H. G., 1953. Protoporphyrin in the integument of *Asterias rubens* L. *Nature, London*: 171: 81.
- MACMUNN, C. A., 1886. On the presence of haematoporphyrin in the integument of certain invertebrates. *Journal of Physiology*, 7: 240–252.
- VEVERS, H. G., 1954. The Experimental Analysis of the Feather Patterns in the Amherst Pheasant *Chrysolophus amherstiae* (Leadbeater). *Transactions of the Zoological Society of London*, 28: 305–349.

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## STOP PRESS

Please note that after 108 years the British Museum (Natural History) is changing its image. It was renamed The Natural History Museum on 1 June 1989. Not surprisingly its address is otherwise unchanged.

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## LIBRARY

The refurbishing of the Piccadilly frontage of Burlington House will mean that the Library will be encased in scaffolding and plastic sheeting until the end of the year. We hope that by the autumn the washing of the stonework will have been completed without incident but, as this work has already resulted in damage to a neighbouring library, we are hostages to fortune and can only hope that the library comes through unscathed. At one stage we are likely to have roofing over the Reading Room removed so we may have rather gloomy and disrupted working conditions.

The next *Bring and Buy Book Sale* will be held on 2nd November before and after the General Interest lecture by Mr B. J. Ford on 'A New History of the Microscope'. Fellows are reminded that we welcome all kinds of books for these sales but prefer them to be brought in well ahead so that we can select any we want to add to the Library and sort and price the others. Any added to the Library will be acknowledged and listed as donations. Funds from the sale are added to the Library purchase budget.

### *Donations*

Donations since the beginning of December 1988 are listed below. These do not include reprints from Fellows which we are always happy to receive as they complement our other holdings. Special mention should be made of the gift of

a large number of additions to the Library by P. Tuley which strengthen our holdings in tropical economic botany and agriculture.

- H. I. H. Akihito of Japan, Matsuda, H. (and others), *The fishes of the Japanese archipelago*. 3 vols. illustr. some col. maps. Tokai University Press, Tokyo, 2nd ed. 1988.
- British Museum (Natural History) Norst, Marlene, J. *Ferdinand Bauer, the Australian natural history drawings* (Art in Natural History 1). 120 pp. illustr. some col. British Museum (Natural History), London, 1989.
- The author Breteler, F. J., *The African Dichapetalaceae, indices to literature and scientific names*, by Mrs W. C. M. Tammens-de-Rooij. 22 pp. 1988.
- British Iris Society J. Burton British Iris Society, *Iris Yearbook*. 1988.
- The authors McCracken, H. *Hunters of the seas*. 312 pp. Oldbourne, London, 1957.
- The author Dick, Matthew, H. & Ross, June P., *Intertidal bryozoa (Cheilostomata) of the Kodiak vicinity Alaska*. Occ. Papers, No. 23). 133 pp. illustr. Center for Pacific Northwest Studies, Bellingham, 1988.
- The author El-Ghonemy, A. A., *Ecology and flora of the Al Ain region*. 204 pp. illustr. col. Al Wahda Press, Abu Dhabi, 1985.
- The author Exell, A. W., *The history of the ladybird*. 44 pp. illustr. (privately) Shipston-on-Stour, 1989.
- The author Hawkes, J. G., *The potatoes of Bolivia, their breeding and evolutionary relationships*. 472 pp. illustr. maps. Clarendon Press, Oxford, 1989.
- The author Holliday, Paul, *A dictionary of plant pathology*. 369 pp. University Press, Cambridge, 1989.
- Director, IBPRG Hoyt, E., *Conserving the wild relatives of crops*. 45 pp. illustr. col. IBPRG, Rome, 1988.
- Karl Marx University Leipzig, (University Herbarium), *Catalogus Herbarii Lipsiensis—plantae neotropicae*. 60 pp. Karl Marx University, Leipzig, 1987.
- The author Langford, Terry E. L., *Electricity generation and the ecology of natural waters*. 342 pp. Liverpool University Press, Liverpool, 1983.
- The publishers Blackmore, Vernon & Page, Andrew, *Evolution, the great debate*. 192 pp. illustr. some col. Lion, Oxford, 1989.
- The author Magdefrau, K., *Lebenserinnerungen* 126 pp. (privately), 1988.
- The author Matthew, K. M., *Further illustrations on the flora of the Tamilnadu Carnatic*. 915 pp. illustr. Rapinath Herbarium, Tiruchirapalli, 1988.
- Prof. E. J. Moynahan Forey, R. (Ed.), *Hominid evolution and community ecology, prehistoric human adaptation in biological perspective*. 296 pp. illustr. Academic Press, London, 1984.
- National Botanic CONGRESSES, *International Botanical Congress*,

- Garden, Glasnevin *Proceedings, 10th International Botanical Congress, Edinburgh 1964.* 221 pp. Edinburgh, 1964.  
DUBLIN, National Museum of Ireland, *A catalogue of the collection of Irish Marine crustacea* by C. E. O'Riordan. 98 pp. Stationery Office, Dublin, n.d.
- Royal Scottish Museum Heppell, D. & Smith, S. M., *Recent cephalopoda in the collections of the Royal Scottish Museum.* Edinburgh, 1983.
- Royal Scottish Museum *Royal Scottish Museum Information Series. Natural History: Manuscripts in the Royal Scottish Museum, parts 1-3* R. S. M. Edinburgh, 1981-1983.
- The author Simo, Melanie Louise, *Loudon and the landscape, from country seat to metropolis, 1783-1843.* (Yale publications in the History of Art, No. 38. ed. George, L. Hersey,) 337 pp. illustr, some col. Yale University Press, New Haven, 1988.
- The authors Stanbury, P. & Holland, J., *Mr Macleay's celebrated cabinet.* 171 pp. illustr. Macleay Museum, Sydney, 1988.
- Systematics Association *Systematics Association, Biosystematics of haematophagous insects,* edited by M. W. Service. (Special Volume No. 37). 363 pp. illustr. Clarendon Press, for Systematics Association, Oxford, 1988.
- The publishers Arthur, Wallace, *A theory of the evolution of development.* 94 pp. illustr. Wiley, Chichester, 1988.

#### Accessions

Accessions from December 1988 to May 1989 include:

- Abrahamson, Warren G. (ed.), *Plant-animal interactions.* 480 pp., illustr. McGraw Hill, New York, 1989.
- Banerji, M. L. & Pradhan, Prabha, *The orchids of Nepal Himalaya.* 534 pp., illustr. Cramer, Vaduz, 1984.
- Barclay, Colville, *Crete, checklist of the vascular plants* (from Englera, Vol. 6 1988), 138 pp. Botanischen Garten und Botanischen Museum Berlin-Dahlem, Berlin, 1988
- Barrett, P. H. and others, *Charles Darwin's notebooks, 1836-1844,* transcribed and edited. 747 pp., illustr. Cambridge University Press and BM (NH), Cambridge, 1987.
- Bartram, J., Evans, L. & Weiser, C., *A journey from Pennsylvania to Onondoga in 1743,* introduction by W. J. Bell. 132 pp., illustr. Imprint Society, Barre, Mass. 1973.
- Bates, Marston, *The forest and the sea, a look at the economy of nature and the ecology of man.* 277 pp. Nick Lyons, New York, 1988.
- Baumann, H. & Kunkele, S. *Die wildwachsenden Orchideen Europas.* 432 pp., col. illustr. Kosmos, Stuttgart, 1982.
- Beckett, Elspeth, *Wild flowers of Majorca, Minorca, and Ibiza, with keys to the flora of the Balearic Islands.* 221 pp., illustr. 6 col. pl. A.A. Balkema, Rotterdam, 1988.

- Birks, H. H. and others, *The cultural landscape, past, present and future*. 521 pp., illustr. maps. University Press, Cambridge, 1988.
- Blaker, Alfred A., *Handbook for scientific photography*. 287 pp., illustr. some col. Focal Press, Boston, 1989.
- Bole, P. V. & Vaghani, Yogini, *Field guide to the common trees of India*. 125 pp., illustr. Oxford University Press, Bombay, 1986.
- Botanical Society of the British Isles, *Plant crib* by T. C. G. Rich and M. D. B. Rich. 142 pp., illustr. BSBI, 1988.
- Bowler, Peter, *The non-Darwinian revolution, reinterpreting a historical myth*. 238 pp. Johns Hopkins University Press, Baltimore, 1988.
- Bronnimann, P. & Whittaker, J. E., *The Trochamminaceae of the Discovery Reports*. 152 pp., illustr. map. British Museum (Natural History), London, 1988.
- Bronshtein, Z. S., *Freshwater ostracoda (Fauna USSR No. 31, Crustacea II (1))*. 470 pp., illustr. Balkema, Rotterdam, 1988.
- Burkill, H. M., *The useful plants of West Tropical Africa, Vol. 1, A–D*. 960 pp., map. Royal Botanic Gardens, Kew, 1985.
- Burollet, P., *The Sahel de Sousse, monographie phytogéographique*. 270 pp., illustr. Imp. Rapide, Tunis, 1927.
- Burroughs, John A., *A sharp look out, selected nature essays*, edited by Frank Bergon. 606 pp., illustr. Smithsonian Institution Press, Washington, 1987.
- CAIRO, University Herbarium, *50 years Cairo University Herbarium, 80 years birthday of Vivi Tackholm* (Cairo University Herbarium Publications Nos. 7 & 8) 331 pp., illustr. Koeltz, Koenigstein, 1977.
- CANBERRA, Bureau of Flora and Fauna, *Flora of Australia, Vol. 19. Myrtaceae- Eucalyptus, Angophora*. 343 pp., illustr. Australian Government Printers, Canberra, 1988.
- Chen Shou-Liang & Chin Liang-chi. *Chinese bamboos*. 120 pp., illustr. some col. Science Press & Dioscorides Press, Beijing & Portland, 1988.
- Cocker, Mark & Inskipp, Carol, *A Himalayan ornithologist, the life and work of Brian Houghton Hodgson*. 87 pp., col. illustr. Oxford University Press, Oxford, 1988.
- Crawley, M., *Catalogue of the type and figured specimens of macrofossil algae in the British Museum (Natural History)*. (BMNH Dept. of Palaeontology Catalogue No. 7). 52 pp. British Museum (Natural History) London, 1988.
- Cronsdale, Hannah, *Flora of New Zealand: freshwater algae, Chlorophyta, desmids*, Vol. II. 147 pp., illustr. some col. Botany Division, DSIR, Christchurch, 1988.
- Cullen, J. P. & Jennings, P. P., *Birds of the Isle of Man*. 364 pp., illustr. maps. Bridgeen Publications, Douglas, 1986.
- Dawson, John, *Forest vines to snow tussocks, the story of New Zealand plants*. 264 pp., illustr. maps. Victoria University Press, Wellington, 1988.
- Delaunay, Paul, *Pierre Belon, naturaliste*. 268 pp. Monoyer, Le Man, 1925.
- Dupias, Georges, *Fleurs du Parc National des Pyrénées*. 425 pp., 2 vols. col. illustr. Parc National des Pyrenees, Tarbes, 1987.
- Eddy, Alan (Ed.), *A handbook of Malesian mosses, Vol. 1 Sphagnales—Dicranales*. 204 pp., illustr. map, British Museum (Natural History) London, 1988.

- EDINBURGH, Royal Botanic Garden, *Rory McEwen, the botanical paintings*, (catalogue of an exhibition). 74 col. pl., unpagged. Edinburgh, 1988.
- EDINBURGH, Royal Botanic Garden, *The history of the Royal Botanic Garden Library Edinburgh*, by Manjil V. Mathew. 133 pp., illustr. 9 col. pl. H.M.S.O. Edinburgh, 1987.
- Ekstam, U., Jacobson, R., Mattson, M., & Porsne, T., *Ölands och Gotlands växtvärld*. 336 pp., col. illustr. Natur och Kultur, Stockholm, 1984.
- El Hadidi, M. Nabil & El Hadidi, Azza M. H., *Flora of Egypt*, Family 57, Amaranthaceae. 92 pp., illustr. Koeltz, Koenigstein, 1981
- Fleming, C. A., *Science, settlers and scholars, the centennial history of the Royal Society of New Zealand*. (Bulletin No. 25) 353 pp., illustr. Royal Society of New Zealand, Wellington, 1987.
- Fournet, J., *Fleurs et plantes des Antilles*. 142 pp., illustr. col. Editions du Pacifique, Tahiti, 1983.
- Fry, J. (and others), *A history of the Royal College of General Practitioners*. 270 pp. R. C. G. P. Lancaster, 1983.
- Georgiades, Christos Ch. *Flowers of Cyprus, plants of medicine*. 2 vols. col. illustr. (privately). Nicosia 1987.
- Goldblatt, Peter, *The Moreas of South Africa*. 224 pp., col. illustr. maps. National Botanic Gardens, Cape Town, 1986.
- Goulding, Michael, Carvalho, Miriam Leal & Ferreira, Efrem G., *Rio Negro, rich life in poor water*. 200 pp., illustr. S. P. D. The Hague, 1988.
- Great Plains Flora Association, *Atlas of the flora of the Great Plains*. 600 pp., maps. Iowa State University, Ames, 1977.
- Grunfeld, Frederic V. *Wild Spain*. 222 pp., illustr. some col. Ebury Press, London, 1988.
- Hampshire, R. J. & Sutton, D. A., *Flora Mesoamericana, a preliminary bibliography of the Mesoamericana flora*. 194 pp. British Museum (Natural History), London, 1988.
- Hickey, Michael & King, Clive, *One hundred families of flowering plants*. 2nd ed. 619 pp., illustr. Cambridge University Press, Cambridge, 1988.
- Higgins, Robert P. & Thiel, Hjalmar, (Eds.) *Introduction to the study of Meiofauna*. 488 pp., illustr. Smithsonian Institution Press, Washington D.C., 1988.
- Humphries, C. J. (Ed), *Ontogeny and systematics*. 236 pp., illustr., British Museum (Natural History), London, 1988.
- Institut Français d'Etudes Andines, *Les vertèbres fossiles de la formation Pisco (Pérou) Pt. II Odontocetes*, by Christian de Muizon. 244 pp., illustr. Institut Français d'Etudes Andines, Paris, 1988.
- Jenkins, P. D., *Catalogue of primates in the British Museum (Natural History)*, Part IV. 198 pp. British Museum (Natural History), London, 1987.
- Juniper, B. E., Robins, R. J. & Joel, D. M., *The carnivorous plants*. 353 pp., illustr. Academic Press, London, 1989.
- King, Judith, E. *Seals of the world*, 2nd edition. 240 pp., illustr. some col., maps. British Museum (Natural History), London, 1983.
- Kitching, R. L. (ed.), *The ecology of Australia's wet tropics*. (Proceedings, Ecological Society of Australia, Vol. 15) 326 pp., illustr. maps, Sutton Beatty, Chipping Norton, 1988.
- Klein, Richard, G. & Cruz-Uribe, Katryn, *The analysis of animal bones from*

- archaeological sites*. (Prehistoric archaeology and ecology series) 266 pp., illustr. University of Chicago Press, Chicago, 1984.
- Kunkel, G., *The vegetation of Hormoz, Queshm and neighbouring islands . . .* 186 pp., illustr. Cramer, Vaduz, 1977.
- Kunkel, G., *Plants for human consumption*. 393 pp. Koeltz, Koenigstein, 1984.
- Lacroix, A., *Notice historique sur Bory de Saint-Vincent*. 75 pp. Institut de France, Academie des Sciences, Paris, 1916.
- Launert, E., *Flora Zambesiaca*, Vol. 8, pt. 3. 122. Lentibulariaceae, 123 Gesneriaceae, 124 Bignoniaceae and 125 Pedaliaceae. 118 pp. illustr. *Flora Zambesiaca*, London, 1988.
- Vol. 9, pt. 1. 130 Plantaginaceae, 131 Nyctaginaceae, 132 Amaranthaceae, 133 Chenopodiaceae, 134 Basellaceae and 135 Phytolaccaceae. 179 pp. illustr. *Flora Zambesiaca*, London, 1988.
- Leistner, O. A., *Flora of Southern Africa*, Bryophyta, Part I, Mosses, Fasc. 1 Sphagnaceae—Grimmiaceae, by Robert E. Magill. 291 pp., illustr. Government Printer, Pretoria, 1981.
- Linton, E. F., *Monograph of the British Willows* (Supplement to *Journal of Botany*, 1913). 92 pp. London, 1913.
- Lloyd, Elizabeth A. *The structure and confirmation of evolutionary theory*. 235 pp. Greenwood Press, New York, 1988.
- LONDON, Royal Society, *The signatures in the first journal-book and the charter book of the Royal Society*, being facsimiles . . . (from 1660 . . . to the present time). 101 pl., 47 pp. Royal Society, London, 1936.
- LONDON, Zoological Society, *Aspects of decapod crustacean biology*, edited by A. A. Fincham and P. S. Rainbow. (Symposium No. 59). 375 pp., illustr. Clarendon Press, Oxford, 1988.
- Macleod, Roy, & Rehbock, Philip F. (Eds.), *Nature in its greatest extent, western science in the Pacific*. (Congress, 17th International Congress on the History of Science, Berkeley, 1985). 28 pp., illustr. some col. maps, University of Hawaii Press, Honolulu, 1988.
- Macleod, R. (Ed.), *The Commonwealth of Science, ANZAAS and the scientific enterprise in Australia, 1888–1988*. 417 pp., illustr. Oxford University Press, Melbourne, 1988.
- MARC Monitoring and Assessment Research Centre, *Biological monitoring of environmental contaminants (plants)*, Technical Report No. 32. by M. A. S. Burton. 247 pp. MARC, London, 1986.
- Margetts, L. J., *The difficult and critical plants of the Lizard district of Cornwall*. 77 pp. illustr., overlays. Grenfell, Bristol, 1988.
- Marshall, Judith & Haes, E. C. M., *Grasshoppers and allied insects of Great Britain and Ireland*, (with accompanying cassette tape of grasshopper songs). 252 pp. illustr., some col., maps. Harley Books, Colchester, 1988.
- McAllister, Don E. & Kott Edward, *On lampreys and fishes, a memorial anthology in honor of Vadim D. Vladykov*. (Developments in environmental biology of fishes, No. 8. ed. E. K. Balon) 160 pp., illustr. Kluwer Academic Publishers, Dordrecht, 1988.
- Morgan, Elaine, *The aquatic ape*. 178 pp., illustr. Stein & Day, New York, 1982.
- Morwood, William, *Traveler in a vanished landscape, the life and times of David Douglas, botanical explorer*. 244 pp., illustr. C. N. Potter, New York, 1973.

- Nash, Roderick Frazier, *The rights of nature, a history of environmental ethics*. 290 pp. University of Wisconsin Press, Madison, 1989.
- NATO, Advanced Studies Institute, *Behavioural adaptation to intertidal life*, edited by Guido Chelazzi and Marco Vannini. 524 pp., illustr. Plenum, New York, 1988.
- NATO, Advanced Studies Institute, *Animal sonar, processes and performance*, ed. Paul E. Nachtigall and Patrick W. B. Moore. 862 pp. Plenum, New York, 1988.
- Natural Environment Research Council, Biological Records Centre, *Provisional Atlas of the Sepsidae (Diptera) of the British Isles*, by Adrian Pont. 33 pp., maps. Monks Wood Experimental Station, I.T.E. Huntingdon, 1986.
- Provisional Atlas of the click beetles (Coleoptera: Elateroidea) of the British Isles*, by Howard Mendel. 89 pp., maps, Monks Wood Experimental Station, I.T.E. Huntingdon, 1988.
- Provisional Atlas of Ticks (Ixodoidea) of the British Isles*, by K. P. Martyn. 62 pp. maps, Monks Wood Experimental Station, I.T.E. Huntingdon, 1988.
- Provisional Atlas of the harvest-spiders (Arachnida: Opiliones) of the British Isles*, by J. H. P. Sankey. 42 pp., maps, Monks Wood Experimental Station, I.T.E. Huntingdon, 1988.
- Provisional Atlas of the centipedes of the British Isles*, by A. D. Barber and A. N. Keay. 127 pp., maps, Monks Wood Experimental Station, I.T.E. Huntingdon, 1988.
- Nava, Herminio, *Flora y vegetacion orofilas de los Picos de Europas*. (Ruizia, T.6). 243 pp., illustr. Madrid, 1988.
- Nepal, Ministry of Forests, *Flora of Phulchoki and Godawari*. 144 pp., xxi, illustr. Ministry of Forests, Kathmandu, 1969.
- Okaichi, Tomotoshi; Anderson, David M. & Nemoto, Takahisa, *Red tides, biology, environmental science and toxicology*. (Proceedings of the 1st International Symposium, Tagamatsu, 1987). 489 pp., illustr. Elsevier, New York, 1989.
- Orshan, Gideon, *Plant phenomorphological studies in Mediterranean type ecosystems*. 404 pp., illustr. Kluwer, Dordrecht, 1989.
- Palmer, Katherine van Winkle, *Type specimens of marine mollusca described by P. P. Carpenter from the west coast*. 376 pp., illustr. Geological Society of America, New York, 1958.
- Polhill, R. M. (Ed.), *Flora of Tropical East Africa: Aponogetonaceae*, by K. A. Lye. 10 pp., illustr. Balkema, Rotterdam, 1989.
- Bombaceae*, by H. Beentje. 9 pp., illustr. Balkema, Rotterdam, 1989.
- Hydrophyllaceae*, by B. Verdcourt. 5 pp., illustr. Balkema, Rotterdam, 1989.
- Dipterocarpaceae*, by B. Verdcourt. 10 pp., illustr. Balkema, Rotterdam, 1989.
- Najadaceae* by L. Triest. 9 pp., illustr. Balkema, Rotterdam, 1989.
- Nymphaeaceae*, by B. Verdcourt. 11 pp., illustr. Balkema, Rotterdam, 1989.
- Umbelliferae*, by C. C. Townsend. 127 pp., illustr. Balkema, Rotterdam, 1989.
- Smilacaceae*, by E. J. Cowley. 4 pp., illustr. Balkema, Rotterdam, 1989.

- Powell, Dulcie, *The Botanic garden, Liqueanca*. (Bull. Inst. of Jamaica, Sci. Ser. No. 15 pt. I.) 94 pp., maps. Kingston, 1972.
- Prance, Ghillean T. & Kallunki, J. A. (Eds.), *Ethnobotany in the Neotropics*, proceedings of a symposium. 156 pp., illustr. New York Botanic Garden, New York, 1984.
- Pyne, Stephen J., *Fire in America, a cultural history of wildfire and rural fire*. 654 pp., illustr. Princeton University Press, Princeton, 1988.
- Rao, C. Kamesward, & Pankhurst, R. J., *A polyclave to the monocotyledon families of the world*, a computer generated identification key. 57 pp., illustr., 17 pp. typescript instructions, 1 floppy disk. British Museum (Natural History), London, 1986.
- Ricker, R. W., *Taxonomy and biogeography of Macquarie island seaweeds*. 344 pp., illustr. British Museum (Natural History) London, 1987.
- Rost, Terry L., *Atlas of wintering North American birds*, an analysis of Christmas bird count charts. 312 pp., maps, Chicago University Press, Chicago, 1988.
- Royal Entomological Society, *Scuttleflies, Diptera Phoridae* . . . by R. H. L. Disney (Handbooks for the Identification of British Insects, Vol. 10, part 6). 81 pp., illustr. Royal Entomological Society, London, 1983.
- Flatflies and batflies, Diptera* . . . by A. M. Hudson (Handbooks for the Identification of British Insects, Vol. 10, part 7). 40 pp., illustr. Royal Entomological Society, London, 1984.
- Bibionid and Scatopsid flies, Diptera* by P. Freeman & R. P. Lane (Handbooks for the Identification of British Insects, Vol. 9, part 7). 74 pp., illustr. Royal Entomological Society, London, 1985.
- Dung beetles and chafers, Coleoptera Scarabaeoidea* by L. Jessop (Handbooks for the Identification of British Insects, Vol. 5, part 11). 53 pp., illustr. Royal Entomological Society, London, 1986.
- Pimpline Ichneumonid flies, Hymenoptera, Ichneumonidae (Pimplinae)* . . . by M. G. Fitton, M. R. Shaw & I. D. Gould, (Handbooks for the Identification of British Insects, Vol. 7, part 1). 110 pp., illustr. Royal Entomological Society, London, 1988.
- Spider wasps, Hymenoptera, Pompilidae*, by Michael C. Day (Handbooks for the Identification of British Insects, Vol. 6, part 4). 60 pp., illustr. Royal Entomological Society, London, 1988.
- Shaw, Margaret (Ed.), *A flora of the Sheffield area* (200 years of plant records). (Sorby Record, Special Series, No. 6). 307 pp. (overlay) Sorby Natural History Society, Sheffield, 1988.
- Simon, James E; Chadwick, Alena F. & Craker, Lyle E. *Herbs, an annotated bibliography 1971-1980*. 770 pp. Archon, Hamden, 1984.
- Smit, Pieter, *Hendrik Engel's alphabetical list of Dutch zoological cabinets and menageries* (2nd enlarged edition) 340 pp., illustr. Ed. Rodopi, B. V. Amsterdam, 1986.
- Smitinand, T., *Flora of Thailand, Vol. 2, part I. Haloragaceae, Rhizophoraceae, Oxalidaceae, Ochnaceae, Rosaceae, Icacinaceae*. 92 pp., illustr. Applied Scientific Research Corp. of Thailand, Bangkok, 1970.
- Spencer, Kevin, C., *Chemical mediation of co-evolution*. 609 pp. Academic Press, San Diego, 1988.
- Steenis, Cornelius G. G. J. van, *Flora Malesiana, Ser. I Spermatophyta, flowering*

- plants*, Vol. 10, part 3, revisions. pp. 337–634. illustr. maps, Kluwer, Dordrecht, 1988.
- Stork, N. E. *An annotated checklist of the Carabidae . . . recorded from Borneo*. 24 pp., map, British Museum (Natural History), London, 1986.
- Straka, H. and others, *Guide to the flora of Mallorca*. 216 pp., illustr. some col. Gustav Fischer, Stuttgart, 1987.
- Sutton, D. A. A., *Revision of the tribe Antirrhineae*. 575 pp., illustr. (4 fiche), British Museum (Natural History) London, 1988.
- SYMPOSIA, *Archaeology and the flora of the British Isles*, papers read at a conference . . . Oxford . . . 1984. edited by Martin Jones. 122 pp., illustr. Oxford University Committee for Archaeology, Oxford, 1988.
- Thouin, Gabriel, *Plans raisonnees de toutes les especes de Jardins*. 57 pp., 56 pl. Inter-Livres, Paris, 1820 (facs. ed).
- Tripoli, Al-Faateh University, *Flora of Libya. No. 145, Poaceae*, 356 pp. illustr. Al Faateh University, Tripoli, 1988.
- Verma, D. M., Pant, P. C. & Hanfi, M. I., *Flora of Raipur, Durg and Rajnandgaon*. 519 pp., illustr. Botanical Survey of India, New Delhi, 1985.
- White, Gilbert, *The illustrated natural history of Selborne*. 256 pp., col. illustr. Webb & Bower, Exeter, 1984.
- Woelkerling, Wm. J., *The coralline red algae*. 268 pp. illustr. BM(NH) and Oxford University Press, London & Oxford, 1988.

## PROGRAMME

All meetings will be held in the Rooms of the Society unless another venue is stated in parentheses.

<b>1989</b>	<b>Start</b>		
13 Sep	09.30	(At Kensington Gore) <b>Geomorphology of Kimberley.</b> Coordinator: Prof. A. S. Goudie, F.R.G.S.	Symposium
14–15 Sep	09.30	(At Kew) <b>The Living World of the Australian Kimberley.</b> Coordinator: Mr M. J. S. Sands, F.L.S., R. B. G., Kew	Symposium
2 Oct	17.30	Developing and Dying. Prof. H. Woolhouse, F.L.S., John Innes Institute	VIth Form Lecture
19 Oct	17.00	* <b>Animal Mitochondrial DNA as a Genetic Marker in Systematic and Evolutionary Biology.</b> Prof. R. Harrison, Cornell University	Scientific Meeting
30 Oct	17.30	How is the Cardiovascular System Controlled? Dr J. M. Marshall, University of Birmingham	VIth Form Lecture
2 Nov	18.15	<b>A New History of the Microscope.</b> Mr B. J. Ford, F.L.S.	General Interest Lecture and Book Bring and Buy
16 Nov	10.30	* <b>Global Change and the Biosphere.</b> Coordinators: Prof. W. G. Chaloner F.R.S. and Prof. A. D. Bradshaw, F.R.S.	Scientific Joint Meeting with British Ecological Society
27 Nov	17.30	Enzymes—Nature's Versatile Catalysts. Dr I. Graham, Manchester Polytechnic	VIth Form Lecture
14 Dec	17.00	* <b>The Gaia Hypothesis.</b> Organizer: Dr F. A. Bisby, F.L.S., Southampton University	Scientific Debate
<b>1990</b>			
10 Jan	10.30	Problems and Solutions: Practical Aspects of Biological Research. Dr D. F. Cutler, F.L.S., Mrs E. A. Rollinson, Dr B. D. Turner, Dr S. D. Wraton	VIth Form Symposium
11 Jan	17.00	* <b>Honeybee Biology with Man in Mind.</b> Prof. R. S. Pickard, University of Wales	Scientific Meeting
22 Jan	17.30	The Ecology of Competition and Co-existence. Prof. J. P. Grime, NERC, Sheffield University	VIth Form Lecture
25 Jan	10.30	* <b>Conservation of Marine Communities.</b> Organiser: Prof. J. Green, F.L.S., Queen Mary College	Scientific Meeting
15 Feb	10.30	* <b>Videodisc and CD-ROM: New Media for the Teaching and Recording of Biological Diversity.</b> Coordinator: Dr F. A. Bisby, F.L.S., Southampton University	Scientific Meeting
26 Feb	17.30	How Do Animal Cells Talk to each Other? Dr C. J. Kirk, University of Birmingham	VIth Form Lecture
15 Mar	10.30	* <b>Biological Diversity: Conserving Germplasm of World Crops and their wild relatives.</b> Coordinator: Prof. J. G. Hawkes, F.L.S. University of Birmingham	Joint Meeting with the Association of Applied Biologists
19 Mar	17.30	Plants—"Flower Power" or Life Support System—a Botanist's Biased View. Mr G. Ll. Lucas, F.L.S., R.B.G., Kew	VIth Form Lecture
28–30 Mar	09.30	* <b>Pollen and Spores: Patterns of Diversification.</b> Coordinator: Dr S. Blackmore F.L.S., British Museum (Natural History)	Specialist Group International Symposium
3 May	10.30	* <b>Biological Diversity: Conserving Germplasm in Botanic Gardens.</b> Coordinator: Prof. V. H. Heywood, F.L.S., IUCN, Kew	Scientific Meeting
24 May	16.00	* <b>Anniversary Meeting.</b> Elections and presentation of Awards	
13 June	19.00	<b>Conversazione</b>	

\*Admission of Fellows