Editorial

This year is a most important one in the history of the Society for it marks the start of our Bicentenary celebrations. Although we were founded in 1788 "for the Cultivation of the Science of Natural History in all its branches", Council has decided that the Bicentenary Scientific Programme should be spread over the two years on either side of 1988. In this way we are able to share our celebrations with several specialist societies (some of which we have spawned) by holding joint symposia or meetings. Further, it is Council's intent that these joint meetings shall be on topics of current interest and importance and will each include a consideration of possible future developments in the field.

The historical article in this issue concerns one of the most famous of vertebrate palaeontologists, Arthur Smith Woodward, who was a Vice-President 1905–7, 1908–10, 1913–14, 1923–24 and President 1914–16. As our present President, William Chaloner, is also a palaeontologist we thought it appropriate to publish a series of autobiographical and biographical notes on his famous predecessor.

SOCIETY NEWS
Important Notices

Bicentenary Scientific Programme

The Bicentenary Scientific Programme will be published in the appropriate *Journals* of the Society, with approximately one part of each volume allocated to each joint meeting. For a one-day meeting, this means that each speaker will be allocated 10 pages of A4 double-spaced manuscript including figures and references. This part of the journal will have a special cover and authors will get reprints. As the papers are part of the Society's *Journals* the normal refereeing procedure will apply. If the Society's publishers agree and the participating societies wish, run-on copies will also be available.

Full details of the Programme will be published in *The Linnean* and readers will have noticed that the first such meeting, with the Phytochemical Society of Europe, scheduled for **2–4 April 1986** (not June as stated in *1* (6):16) was first announced two issues ago.

Historical aspects will be dealt with in other parts of the Bicentenary celebrations.

Deadlines

The closing dates for material for *The Linnean* are **17 April 1986** for the September 1986 issue, and **25 August 1986** for the December 1986 issue.

Notes

The R.G.S./Linnean Society Bicentenary Project—Kimberley 200

The reconnaissance to Australia and the Kimberleys took place in March/April 1985 as announced in *The Linnean 1* (5). The Linnean Society

representative was Mr Martin J. S. Sands F.L.S., Royal Botanic Gardens, Kew, and he has since been appointed Deputy to Professor Andrew S. Goudie F.R.G.S. (the other member of the party), now confirmed as the Project Leader. Following their report the Councils of both Societies have agreed that the "Kimberley 200" project should take place. Joint formal approaches have accordingly been made to the Australian Academy of Science and the Australian Bicentennial Authority whose endorsement is awaited.

The reconnaissance recognized two broad areas particularly worthy of biological study: (a) The west coastal region, which includes the estuarine flats and palaeodune systems near to Derby, the Yampi peninsula and nearby islands, and western rivers such as the Hunter and Prince Regent, with the associated drowned valley coast. (b) Inland, the King Leopold, Napier and Oscar ranges which include several rock types and across which there is a steep rainfall gradient from the Great Sandy Desert. There is also a possibility that a deeply dissected area known as "Bungle Bungle" to the east and south of Kununurra could be an interesting 'outstation' study area.

The climate in the area may well require the timing of the project to be extended beyond the two or three mid-year months originally envisaged, and because, botanically at least, the most profitable time is likely to be just at the end of the wet season, the overall period under consideration will probably extend from March to October, 1988.

It is clear from the reconnaissance that there is considerable Australian support for the project and that there is a wide spectrum of research work in many disciplines to be undertaken in the Kimberley Region. A Linnean Society sub-committee (Martin Sands and Dr David Galloway (botanical) and Dr Lawrence Cook (zoological)) is planning life-science aspects and is currently refining the theme and an acceptable, co-ordinated set of objectives for the project.

Numbers taking part will need to be strictly controlled and close co-operation with scientists living in Australia is envisaged, but the sub-committee now looks forward to hearing from anyone who may wish to take part or to propose topics for field research. The more expert scientific and administrative input it can receive in the near future the better.

Membership of Committees

Following on from the notes in the last issue we believe you might also like to know more about the Society's Committees. Generally, in the past, proposals for membership have only been made by the Committee concerned, Officers or Council, but anyone interested may put their names forward at any time. Council's policy is to maintain continuity by allowing members to serve a number of years but it also believes that a steady rotation is needed both to receive injections of new ideas and to spread the load of running the Society. Chairmen serve for five years but both they and the members of their committees may be extended at Council's discretion during the annual review which occurs in May.

Please do not hesitate to put your name forward if you are interested. Below is the list approved by Council incorporating changes for 1985–6.

Bicentenary
Dr D. F. Cutler (Chairman)
Prof. E. A. Bell
Dr V. F. Eastop
Prof. J. G. Hawkes
Prof. D. L. Hawksworth
Mr G. Ll. Lucas
Mr J. Massey Stewart
Dr N. K. B. Robson
Prof. R. J. G. Savage
Miss M. E. Young

ex officio: The Officers

Collections Curatorial
Dr K. A. Joysey (Chairman)
Mr P. K. C. Austwick
Dr R. K. Brummitt
Dr P. S. Davis
Mr L. L. Forman
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
Dr M. W. Dick/Dr S. L. Jury *Bot. J.*
Prof. B. G. Gardiner *The Linnean*
Dr D. M. Kermack Synopses Series
Dr H. M. Platt *Zool. J.*
Dr D. Rollinson
Mr R. I. Vane-Wright
ex officio: The Officers,
Ed. *Kew Bulletin* (Mr M. J. E. Coode),
Ed. *J. Zool.* (Dr M. Edwards)
by invitation: Rep. of Society's Publisher
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
Dr A. R. Stone
ex officio: President, Secretaries, Chairman of the Library Committee

Flora Europaea Trust Fund
Botanical Secretary (Chairman)
Mr A. O. Chater
Prof. V. H. Heywood
Dr S. M. Walters
ex officio: President, Treasurer

Grants
President (Chairman)
Dr R. A. D. Cameron
Prof. J. G. Hawkes
Prof. J. D. Smyth
ex officio: Treasurer, Secretaries

Library
Mr G. Ll. Lucas (Chairman)
*Mr R. E. R. Banks
*Mr R. G. C. Desmond
*Miss S. M. D. Fitzgerald
*Mrs S. Gove
*Mr R. D. Kirkman
*Miss J. Sheppard
Mr D. P. Taylor-Pescod
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 } Chairmen
Botanical Secretary }
Mr F. H. Brightman
Mr A. Cade
Dr J. H. Crothers
Prof. J. G. Hawkes
Dr K. A. Joysey
Mr N. D. Purchon (Sixth Form)
To attend when so desired: Group organisers (as listed on the Meetings Card)
ex officio: President, Treasurer

Meetings of the Editorial Committee

Council has agreed that members of the editorial boards are welcome to attend meetings of the Editorial Committee as observers if they so wish. They will not be sent papers on the assumption that they can be briefed by their respective Journal Editors. The Committee normally meets twice a year, the next meeting being on 25 February 1986 at 14.30.

Journal Runs

The Society's publisher, Academic Press, runs its stock of journals by the complete volume of four issues, and works to a lead time of six to eight weeks when ordering labels. It will therefore save work and avoid wasting time and money if Fellows considering stopping their journals could let us know well before the end of the Society's year, i.e. in February or March.

Long-Term Programme

Readers of the Handbook of U.K. Biological Societies will have seen the dates of our meetings being given up to 1989. These dates are unlikely to change as they are without exception for joint meetings with other societies in connection with the Bicentenary. They will also be given on the back of each issue of *The Linnean* as far ahead as space permits. You should, however, always check with the most up to date issue of *The Linnean* for the latest details.

Anniversaries

During 1985 we sent letters of congratulation to The Royal Institution of South Wales, founded in 1835, The Selborne Society, founded in 1885, and La Société Française de Systématique, founded in December 1984.

The Address List

Compilation of the Address List has taken much longer than anticipated since much of the office time has necessarily been taken with day to day affairs. The details included were correct at the time we 'froze' the file. We apologise for any subsequent discrepancies. Please continue to keep us up to date with changes in your details as they occur.

Refurbishment of the Rooms

By the time you read this we should have completed the installation of air-conditioning in the Meeting Room and redecorated it, and replaced the old equipment which was supposed to maintain a stable environment in the Strong Room. To enable us to take on these very large projects we have received a most generous donation from Mr W. Jovanovich towards the former and a major Royal Society grant towards the latter.

Funds

The International Botanical Congress (Edinburgh) Fund This fund derives from surpluses from the Tenth International Botanical Congress, Edinburgh 1964, and the Third International Congress of Plant Tissue and Cell Culture, Leicester 1974. It is used to assist young botanists (up to the age of 35 at the

time of travel) to attend international botanical and cell culture meetings being held either in the U.K. or abroad, and to participate in excursions or other visits relating to such meetings. Although applications from Ph.D. students can be considered, the usual policy is not to make grants to first- or second-year Ph.D. students unless they are making a substantial scientific contribution to the meeting for which a grant is being sought.

The closing dates are 15 January and 15 June each year. Information and application forms may be obtained from Miss B. M. de Vere, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, Tel: 01-589 5561 (ext. 222).

The Dennis Stanfield Award. The Dennis Stanfield Memorial Fund was established in 1972 to assist persons of scientific merit in undertaking botanical research. The award, in the form of a sum of money, is for items such as travel, equipment, books, computing or other research expenses in connection with any aspect of research on tropical African plants. The award is made at three-yearly intervals and in 1986 the sum available will be £250. Application forms, obtainable by writing to the Executive Secretary, must be returned to the office by 31 March 1986.

Books

Spruce, R., *Notes of a Botanist on the Amazon & Andes* (Ed. A. R. Wallace).

We understand that Professor Richard Schultes has had several enquiries from the U.K. about this work which in the original is now either unobtainable or frightfully (sic) expensive. He has kindly told us for your information that it was beautifully reprinted in 1973 by Johnson Reprint Corp., 111 Fifth Avenue, New York, NY 10003 and is obtainable at $60.00 (Aug 85) for the two volumes.

Mabberley, D. J., *Jupiter Botanicus: Robert Brown of the British Museum*, 1985, 500 pp.

This biography is now available from Wheldon & Wesley, British Museum (Natural History) and the publishers J. Cramer, Brannschweig, F.R.G. at £38.00.

Payments

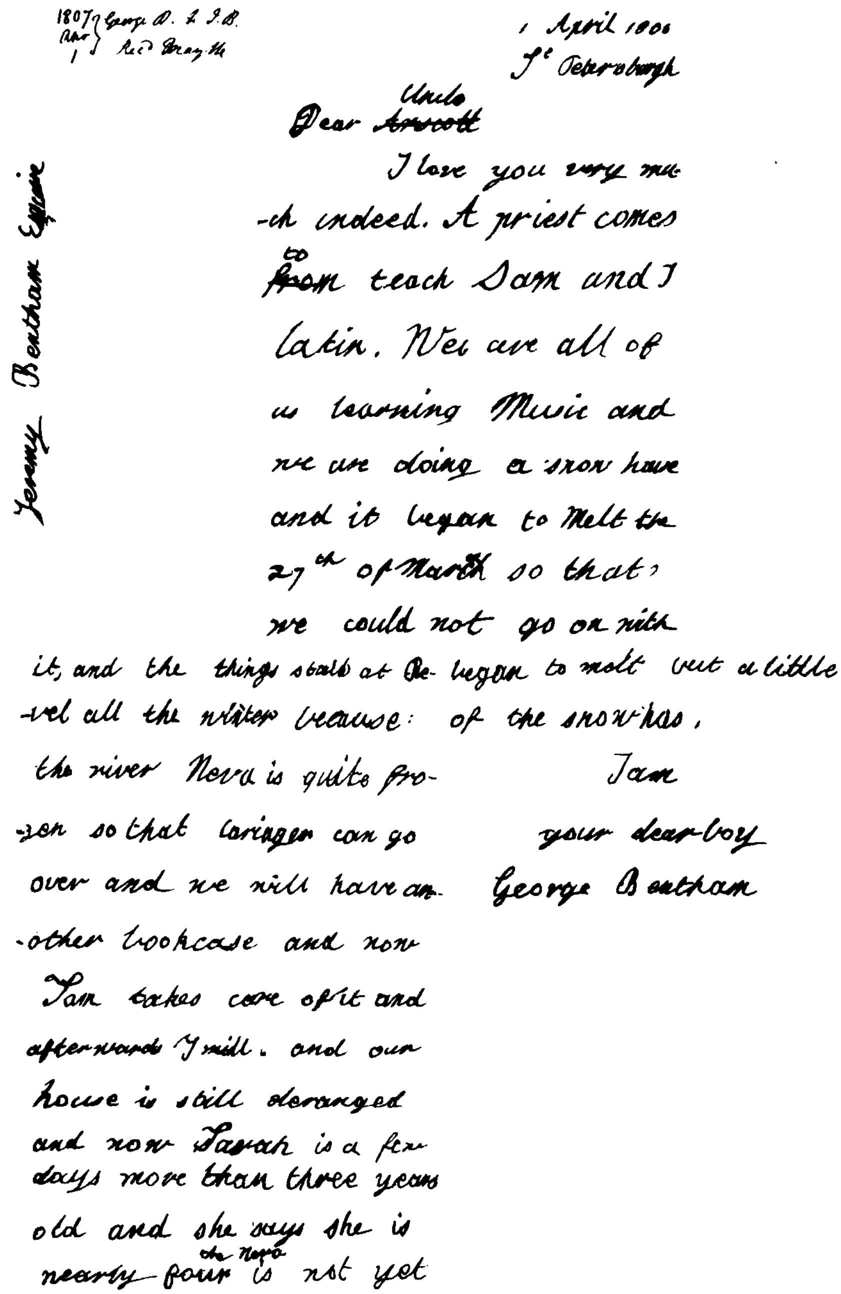
We have had several requests from Fellows in countries with exchange difficulties for the details of our Bankers. These are as follows: Lloyds Bank plc, 16 St. James's Street, London SW1, Account Number 0381863. When payments are made direct by mail transfer please ask your Bank to ensure that the name of the Payee (i.e. your name) is clearly shown on the papers sent to our Bank. If your name is missing, as sometimes happens, it is a lengthy process to find out who the money came from and you will therefore not be credited with the payment until this has been done.

What's new about conservation?

From the archives we found this note written in about 1762 from Mr John Ellis, a naturalist, to Mr Daniel Solander, friend of Linnaeus, and some time Assistant Keeper of Natural Productions and Curiosities at the British Museum:

"You may let Mr Collinson and Mr Fothergill know that Mr Webb will assist them in getting a clause put into an Act of Parliament to make it Transportation* to steal curious plants".

From the Archives


1807 Apr 1 } George B. to J.B. Rec'd May 14

1 April 1806
St Petersburgh

Dear ~~Arscott~~ Uncle

I love you very much indeed. A priest comes ~~from~~ to teach Sam and I latin. Wee are all of us learning Music and we are doing a snow house and it began to melt the 27th of March so that we could not go on with it, and the things stand at the began to melt but a little -vel all the winter because of the snow has. the river Neva is quite frozen so that carriages can go over and we will have another bookcase and now Sam takes care of it and afterwards I will. and our house is still deranged and now Sarah is a few days more than three years old and she says she is nearly four the Neva is not yet

I am your dear boy
George Bentham

Jeremy Bentham Esquire

*For those not conversant with 18th century English Law, 'Transportation' was a sentence of deportation to the Colonies (effectively for life).

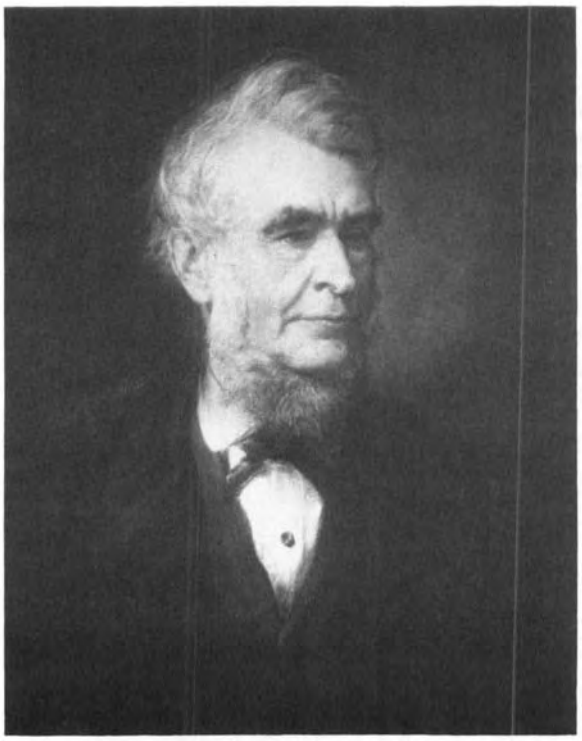
The above letter was written in St Petersburg by six-year-old George Bentham to his uncle Jeremy Bentham in London. George's father, Samuel Bentham, had gone to Russia in 1780 and by 1783 had entered the service of Catherine the Great. He soon reached the rank of lieutenant-colonel and assisted in grandiose schemes for the development of the southern steppes. He also invented a mode of naval architecture (described by his brother as Panopticon) which allowed the supervision of a large workshop (employing many workers) by a single inspector stationed in a central tower.

In later life George Bentham corresponded with both Darwin (on orchids) and Wallace (on biogeography) and produced, with Joseph Hooker, the best known British flora ever compiled. He was President of the Linnean Society 1861–1874.

Coincidentally, Wallace avidly studied the political writings of George Benthams uncle Jeremy and even quoted from him in his Malay Archipelago notebook (1858: 102):

For a Motto

"He who in place of reasoning employs authority, assumes that those to whom he addresses himself are incapable of forming a judgment of their own. If they submit to this insult, may it not be presumed they acknowledge the justice of it?" *Bentham.*



George Bentham, by L. Dickinson 1871.

Crossword Prize winner (*The Linnean*, *1* (5)).

Answer to a July 1985 'A' level Biology question

"The caterpillar passes through the catacombs to become a butterfly".

Meetings

13 February 1986 at 11.00. Coffee will be served at 10.15.

Society business will be conducted before the start of the afternoon session. The agenda will be:

1. Admission of Fellows.
2. Minutes of the Scientific Meeting held on 30 January 1986.
3. Announcement of Council's nominations for Medals and Awards 1986.
4. Ballot for the election of Fellows, Associates and Student Associates.

The third annual joint meeting with the British Ecological Society is on ***The Isles of Scilly and their Biological future.***

11.00. Mr F. R. Gomm (Deputy Regional Officer; Nature Conservancy Council)—*The Isles of Scilly, their nature conservation background*

11.45. Mrs Rosemary Parslow (East Midlands, Nature Conservancy Council) *The flowering plants and Ferns of Scilly*

12.15. Dr Paul Brakefield (University College, Cardiff)—*Evolutionary studies of the meadow brown butterfly in the Scillies*

14.15. Dr Roger Mitchell & Ms Sarah Fowler (Chief Scientist Directorate, Nature Conservancy Council)—*The Shores of Scilly*

Abstract

A number of detailed surveys were undertaken by N.N.C. and its contractors to provide a detailed basis for the interpretation and management of the area. The littoral survey methods used and the results obtained will be discussed.

14.45. Dr John Crothers F.L.S. (The Leonard Wills Field Centre)—*Scillonian Dogwhelks indicate Exposure*

Abstract

The intricate outline of Scillonian rocky shores is mirrored by the pattern of shell-shape variation in the common dog-whelk *Nucella lapillus* (L.). The pattern of shell-shape variation is so precise that shell measurements can be used as an indication of shore exposure.

15.15. Dr Tegwyn Harris (Biology Dept, University of Exeter)—*Sandy shores of Scilly*

16.00. Tea

16.30. Dr Keith Hiscock & Ms Dale Rostron (Oil Pollution Research Unit, Field Studies Council)— *Sublittoral habitats and communities in the Isles of Scilly*

Abstract

Algal populations include several species rarely recorded elsewhere in Britain. There are many southern animal species present, generally in small numbers, but the range of animal species is low.

17.15. *The birds of Scilly*

18.00. *The way ahead*—followed by general discussion.

6 March 1986 at 18.15. Refreshments, sandwiches and wine at 19.30. General Interest lecture: ***Mimicry of* Danaus chrysippus: *the Diadem and the Queen,*** by Dr I. J. Gordon F.L.S. (Department of Biological Sciences, University of Zimbabwe).

Abstract

Professor E. B. Poulton was prepared to abandon the theory of mimicry altogether if the resemblances between female diadems and African queens were "simply accidental". Yet mimics are common thousands of miles outside the range of their supposed models, and the mimetic status of *Hypolimnas misippus* is as uncertain now as it was in 1912. Was Poulton being reckless, or were he and his favourite theory on safe ground?

20 March 1986 at 17.00. Tea will be served at 16.30 and refreshments on conclusion.

1. Admission of Fellows.
2. Minutes of Scientific Meeting held on 13 February 1986.
3. First reading of Certificates of Recommendation for election of Foreign Members and Fellows *honoris causa.*
4. Election of Auditors for the Treasurer's Accounts for the year ended 31 December 1985.
5. Communication: ***Oil Pollution as a stimulus to Taxonomy,*** by Drs J. A. Baker, B. Dicks and Y. Z. Erzinclioglu (Field Studies Council) and Dr J. Hartley (British Petroleum International plc).

Abstract

Taxonomy plays an important role in ecological impact assessments carried out for the oil industry. Surveys of North Sea oilfields are producing a wealth of new information on seabed invertebrates, and there have been exciting finds in

oil development areas elsewhere, such as the mangrove swamps of the Niger Delta. In conclusion, consideration will be given to the Mysterious Maggots from Abu Dhabi.

16–21 March 1986. Jubilee meeting of the Society for the History of Natural History at the British Museum (Natural History). *Nature surveyed: natural history, past, present and future.* Five of our Fellows are contributing papers.

2–4 April 1986. International Symposium at the Royal Botanic Gardens, Kew: ***Chemistry, Taxonomy and Economic Botany of Euphorbiales.*** Registration forms can be obtained from Burlington House. Completed forms must be returned by 1 March 1986. Early application is advised. The list of contributions will include:

Dr A. Aiken—*The biochemical mechanism of action of phorbol esters.* London.
Dr B. L. Archer—*Biosynthesis of rubber.* Hertfordshire.
Dr P. M. Blumberg—*Phorbol esters as probes of the modulatory site in protein kinase C.* Maryland.
Prof. M. Calvin—*Fuel oils from Euphorbs and other higher plants.* California.
Dr F. J. Evans—*Structural correlations in the phorbol ester series.* London.
Prof. E. Hecker—*Tumour-promoters of the irritant diterpene ester type as risk factors of cancer in man.* Heidelberg.
Mrs S. Holmes—*Problems of distinction amongst succulent Euphorbia species.* Kew.
Dr A. R. Kinsella—*Multistage carcinogenesis and the biological effects of tumour-promoters.* Manchester.
Prof. P. Mahlberg—*A personal assessment.* Indiana.
Dr A. M. W. Mennega—*Euphorbiaceae: wood structure as a systematic aid.* Utrecht.
Dr W. Punt—*A survey of pollen morphology in Euphorbiaceae with special reference to Phyllanthus.* Leiden
A. Radcliffe-Smith—*Segregate families from the Euphorbiaceae.* Kew.
Prof. A. M. Rizk—*Euphorbia chemistry.* Qatar.
Dr P. J. Rudall—*Laticisers in Euphorbiaceae – a conspectus.* Kew.
Prof. R. E. Schultes—*The Euphorbiaceae in primitive and advanced societies.* Harvard.
Prof. G. L. Webster—*The search for the phylogenetic classification of the Euphorbiaceae.* California.

17 April 1986 at 17.00. Tea will be served at 16.30 and refreshments on conclusion.

1. Admission of Fellows.
2. Minutes of the Scientific Meeting held on 20 March 1986.
3. Second reading of Certificates of Recommendation for election of Foreign Members and Fellows honoris causa.
4. Ballot for election of Fellows, Associates and Student Associates.
5. Communication: ***Nature Conservation in Urban Areas with special reference to London,*** by Dr D. A. Goode F.L.S. (Chief Ecologist, Greater London Council)

Abstract

Urban ecology and nature conservation in urban areas are fields which have rapidly developed in the last few years. Large cities, London especially, contain a great variety of wildlife in some of the most unexpected places. Fragments of

countryside caught within the urban sprawl include ancient woodlands, hay meadows, marshland and heath. Nature also thrives in totally man-made places. Examples of these urban habitats and the ecological processes involved will be illustrated and the development of a strategy for urban nature conservation will be described.

Correspondence

The Royal Indian Engineering College

The Editorial of Vol. *1* (6), August 1985, states that Harry Marshall Ward first became Professor of Botany at The Royal Indian Engineering College, Cowper's Hall, Surrey. Is this a misprint for Cooper's Hill? At the beginning of this century the College housed a course given by William Schlich to probationers of the Indian Forest Service, but in 1905 he moved the course from Cooper's Hill to Oxford University, where he became the first Professor of Forestry; among his students in that first year at Oxford was my father E. A. Smythies, but in the past I have met older members of the service who were trained in forestry at Cooper's Hill (near Runnymede).

Yours sincerely,
B. E. SMYTHIES,
Field Cottage, Merstham,
Surrey

Editor: Yes, it should have been Cooper's Hill.

A. S. Woodward's first day at the British Museum (Natural History), 24 August 1882

In May 1882 Arthur Smith Woodward applied for the job (advertised in *The Field*) of Assistant in the Geology Department of the British Museum (Natural History) and together with 14 other candidates took a qualifying examination conducted by the Civil Service Commissioners. Arthur, the youngest of the applicants, secured the highest marks and was given the position. The then Keeper of Geology, Henry Woodward F.R.S., had another candidate in view for the vacancy, namely George Charles Crick. Crick unfortunately came fourth in the examination (see below) and had to wait a further four years (until 1886) before joining the Museum Staff.

Below are printed Dr Henry Woodward's letter acknowledging A.S.W.'s appointment and Arthur's subsequent letter to his mother, Mrs E. Woodward, describing his first day at the Museum. Both letters were previously published in the *Journal of the Society for the Bibliography of Natural History, 4* (1), 1962: 79–83, and the originals are preserved in the Palaeontology Library of the Museum together with much unpublished autobiographical and biographical material of A. S. Woodward.

Department of Geology.
British Museum (Natural History),
Cromwell Road,
South Kensington, S.W.

17 August 1882.

Dear Sir,

I have pleasure to acknowledge the receipt of your favor of the 16th inst. informing me that you have been *provisionally* appointed to this Department as a 2nd class Assistant. I shall be glad to make your personal acquaintance & trust you will find the work here congenial to your taste & may be able to aquit yourself as well in the routine-work of the Department as you have done in the C.S. Examination.

"Pay day" (which-rules all over events in the C.S.) always falls on the 20th or 19th of each month—so if you can arrange to begin work on the 21st inst. you will secure a regular entry on [leaf torn: ? the payroll of the Museum] but [it is] a matter of indifference to me personally, & I do not press it.

On your arrival please to come to me before seeing any other persons in the Department, & I will arrange all details for you.

Yours very truly,
HENRY WOODWARD.

A. Smith Woodward, Esq.

72, Albany Street,
Regents Park,
Thursday Evening.
Aug. 24th. 1882.

Dear Mamma,

I am going to spend to-night in writing to you, as you said you wanted so many particulars. I have sent a Post Card by to-night's post, but this letter will have to wait till morning. I shall post it about 8.15 a.m., so please tell me when it arrives at your lodgings.

Yesterday I arrived here without any adventures of importance. I went to sleep in the railway carriage and was awakened somewhere—I don't know where—by a ticket collector. I seemed to myself to be dreaming, and it took a very long time to find my ticket; I thought at the time that I had the return half of my paper ticket, but when I took the other out of my pocket the collector recognized it and took it. I should think he would imagine me to be suffering from the effects of drinking something stronger than water; he had not, I suppose, heard of the "Lord Elgin" affair. The cab fare (hansom) was half a crown. I had part of a salmon steak for dinner, and more of it for tea to-day. It was rather "fishy", whether from its kind or whether from being too old, I don't know. In the afternoon I went to the Zoological Gardens; I saw much that we missed when there before, and I bought a guide-book.

This morning I had breakfast about nine o'clock—two eggs, coffee, and bread & butter. Then I walked to the British Museum (Bloomsbury), and went to the principal Librarian's office. The P.L. himself is away having holidays, but I saw the Deputy, Mr. Nicholls. He and all the officials round him welcomed me as if I had been their friend for years. One of them seemed to be "Paymaster", for he began to talk about money, and said I should perhaps not be as great a friend of his as Mr. Nicholls supposed, for some of the scientific men were too immersed in their studies ever to think about money. The Deputy P.L. gave me a letter of introduction to Dr. Woodward. and told me to take a 1st class ticket from Gower Street to South Kensington and to apply for the fare at the Museum. But there seem to be so many formalities in having money like that, and I thought the trouble expended in going through them was more than worth 8d.

Dr. Woodward said he had been wondering whether it would not be better for me to change my name, but he thought by putting "Smith" always in full with it there would be no confusion. His nephew (B. B. Woodward.) is in our reference library. After filling up some papers he (Dr. W.) took me to the Secretary's Office, where I was provided with a "house key", which unlocks every private and public door in our department. This must be left with the attendants in uniform at the entrance whenever I leave the building for however short a time. Dr. Woodward says he hardly knows the penalty if this rule is broken; he says he thinks it is "something nearly as bad as death". He said he would shew me the "latitude & longitude" of the place next, and so took me through the

greater part of the Department, introducing me to about 30 officials; at present I can only remember the names of very few of them— I know the scientific few. Mine is a splendid position (as the attendant told you) if only I can keep it. I am to be the special assistant of Mr. Davis, and there is no one else but us two in the Vertebrata Section. Dr. Woodward says that Mr. Davis, after being there so long, knows a very great many things about the history of the specimens that no one else does, and that if his assistant does not perpetuate all he can learn about about them these details will be lost to the Museum when Mr. D. leaves. Thus, he says, I can make myself indispensable to the Institution, if I am able to obtain from Mr. D. all or part of this information. Both Dr. Woodward and Mr. Davis told me that for some time yet my work will be chiefly mechanical. First of all, I am to practise writing, or rather "printing" labels; then I am to make labels and also to "tablet" specimens (i.e., fix them with "pins" on boards), and, as a diversion, to go with Mr. Davis whenever he is arranging specimens in the cases. He is a very old gentleman, and from what Mr. B. B. Woodward said to me, I should think he is a little "peculiar". I may also amuse myself by studying the Mammalia, rummaging among the thousands of old bones which surround me in my round for illustrative specimens.

They have located me in a large room in the basement, and my table is near a window which overlooks the lawns in front of the building, and, in the distance, Cromwell Road, B.B.W. says I shall be nearly "cooked" in winter unless I have plenty of ventilation, for a hot-water pipe passes underneath the floor. On every side are cupboards and drawers full of old bones, and the only ornaments on the top are old bones: "old bones" everywhere. I cannot have a carpet, Mr. Davis says, for the Treasury have recently decided not to provide such articles for any Government Officer not receiving £400 or more per annum. It will be much better without one, for then bits can fall to the floor (as Mr. D. says) without doing damage. It appears they had someone ready to "put in" although the Appointment was advertised, but as the Civil Service Commissioners told them to take me they had to turn out their own nominee; he has been working in my place, I suppose for pleasure, as an old gentleman is now doing in Fossil Botany. It was Mr. Crick (I suppose spelt this way), who gained the fourth place in the Civil Service Examination. I did not know him (by name). He made splendid labels, and must have been disappointed with the C.S.E. results, I shall need some practice to do as well.

My hours for the first year are obliged to be from 9 a.m. to 4 p.m., with *half* an hour between for lunch. I have a special ticket for the S. Kensington Museum Refreshment Room. To-day, before my hours of duty were definitely fixed, I took ¾ hr. and had a good dinner. I had Beefsteak Pie, Potatoes, Greengage Pie, and Water, for 1*s.* 6*d.*, 2d waiter. As I cannot have so long an interval again, I think of going to the dairy at 1 o'clock for milk and bun or biscuits, and then of having dinner at 4.30 at the Museum. Then, at my lodgings I will have a good breakfast about 8.0 a.m., and tea, with stewed fruit or preserve at 8.0. p.m. If you can suggest any better arrangement, please tell me. Sundays as at home.

As I have already said there are only two of us in the Vertebrate Section, and among the Invertebrata are Messrs. Robert Etheridge, Junr. and Senr., and Mr. Newton. Mr. Etheridge, Senr., is at Southampton, presiding over the Geol. Sect. of the Brit. Assoc., but I think there is no one else away from duty. Dr. Woodward superintends all, and he again—with the other chiefs—is under the direction of Prof. Owen. So that altogether there are only six specially devoted to Geology in all this enormous Department. The Public Galleries are but a very small fraction of those now closed and of the private store rooms and workshops and apartments. You said that you wondered what there was for me to do. If I were to remain here all my lifetime in the office I now fill and worked night and day at my duties, I don't think I should be anywhere near the finish. Even the cases accessible to the public are very far from finished, as you would see if you looked at them as I have done at one or two to-day. Two or three more assistants could find any amount of constant employment. I have no "dirty", work; all cleaning and repairing of specimens is done by special workmen in their own workshops. There are carpenters, too, and messengers, and attendants, and gate-keepers; they are all exceedingly polite to us, and do everything we want in their provinces.

All workmen have as strict orders as ours; they are obliged to use the back entrance, which is best for us when we go to the Refr. Room. All of them leave a small metallic ticket with the gate-keeper when going out, and each one had to take his own on returning. I suppose such precautions are necessary in so large and valuable a building.

These lodgings are very nice, clean and comfortable, and I have everything I want. Kensington seems a better place than I expected.

It is now supper time, and if you want to know anything particularly omitted here, please tell me when you write.

Your affectionate son,
ARTHUR

P.S. (to please Katie!).—
Expenditure to present date:- -

	s.	*d.*
Cab, Porters, &c.	2	11
Zoo. Gardens & Guide	1	6
Travelling through the realms of smoke	1	2
Dinner	1	8
Cherry Jam	0	10
Ink	0	1
Total	8	2

I think this is all. Mrs. Maclean has provided everything else.

Geology (now Palaeontology) Department BM (NH) C. 1883. A. S. Woodward (1864–1944), W. Davies (1814–91), R. Bullen Newton (1854–1926) Seated: R. Etheridge (1819–1903), H. B, Woodward (1832–1921).

Footnote: The journey through the "realms of smoke" from Gower Street to South Kensington refers to the old Metropolitan Railway, now the circle line, electrification of which did not start until 1900.

From *Abantiades* to *Zygophyllum*

Guaranteed to strike dread into any indexers' heart was an article that began "Cotyledon anatomy has been investigated in approximately 900 species representing all the major tribes of the Leguminosae . . ." 'Just the authors' having a little joke,' I thought, 'they cannot be serious, they won't mention them all', but they were . . . .and they did! That particular index ran to 24 pages, by far the longest Linnean Journal index that I have prepared in seven years of indexing, mostly *Zoological Journals* with some *Botanical Journals* in recent months.

Of course, after seven years I see the articles in the Journals in a rather different light from most people, who simply read them for their scientific content. I can glance through a volume and *know* whether it is going to be a doddle or a slog, or to put it into English, a quickie or a long job. It really depends on what sort of articles are present, invertebrate or vertebrate, dealing with higher taxa or genera, straight morphological descriptions or reviews. The articles most designed to promote tearing of hair (from an indexer's point of view of course) are those produced by the vertebrate taxonomists, sorting out the classification of the higher taxa. Not only are these articles freely besprinkled with a bewildering assortment of taxa from species to phylum and all ranks in between, but the terms are almost always anglicized—just to make life more difficult for the poor indexer it often seems. So please, dear workers in vertebrate taxonomy, somewhere in your article, just once that's all I ask, put in the correct Latin version of your names so that I do not have to go and look them up. And you can be more sure that they are indexed correctly! These articles are always long ones, with complex introductions and lengthy discussions. Sometimes it seems like every taxon in the whole of the reptiles, fish, birds or mammals (sorry, that should read Reptilia, Pisces, Aves or Mammalia) has been included in the article—and the pile of index cards at the end would appear to confirm this impression.

By contrast, complex taxonomic articles by invertebrate zoologists are usually confined to a single family or order; the majority of entries are for genera and their (seemingly numerous) species. Most of the article is taken up with a review of the genera or species and the discussion is short. However (there is always a 'however'), where vertebrate zoologists cannot agree on what is the sister-group to what (or whether this is the correct way to describe a relationship), invertebrate zoologists cannot even agree on a name. So the lists of synonomies get longer . . . and longer . . . and longer. If every time I index an article I index six new *combs. novs.*, then by the year 2000 it will take me (or my computer substitute) twice as many pages to produce my index. The index will be longer than the article! So please, dear workers in invertebrate taxonomy, leave them where they are now. (Oh well, I do realise it's just a pipe dream, accurate taxonomy must come before indexing).

Entomologists seem to be obsessed with certain letters of the alphabet—most of their generic names appear to begin with A, C, L, M or P. It is probably an optical illusion or a figment of my imagination but when two or three related genera are being discussed they always seem to have the same initial—so that we have *A. novemdecimpunctata*, *A. obliterata*, *A. decempunctata* and *A. ocellata* all in the same family (unless they have been changed since 1980). To those of us not

versed in the ways of beetles they are *Anisosticta novemdecimpunctata*, *Aphidecta obliterata*, *Adalia decempunctata* and *Anatis ocellata* but entomologists rarely use the generic name after the first usage, they prefer to use the abbreviation. Sometimes the air turns blue as I flick pages backwards and forwards trying to work out which genus that entry belongs to; if it was last referred to three pages back it could be buried under quite a large pile of index cards by now. Butterflyologists (sorry Lepidopterists) are even bigger offenders—they have been known to leave out the genus initial altogether and simply refer to the organism in question just by its species name. Sometimes I am actually reduced to reading the article to work out which genus is being referred to—this is particularly likely to happen when synonomies are being discussed. In this case, of course, the species names are often the same. Much gnashing of teeth and tearing of hair! I hope it is clearer to the readers than it is to the indexer.

It seems to me that when I started indexing the *Zoological Journal* there were more straight morphological articles and fewer reviews. Indexing was simpler in these halcyon bygone days. In recent years a few rather more ecological articles have been appearing. As a biologist I find these more interesting than the straight taxonomic articles, but to an indexer they present a practical problem—that of an enormous number of index cards in use at the same time. A recent article on "Aphytophagy in butterflies and its relationship to myrmecophily" is a case in point—I had three separate card systems going simultaneously, one on plants, one on butterflies and a third on ants.

I have not been indexing the *Botanical Journal* for long enough to identify trends or patterns, only long enough to learn the problems! The botanical indexes seem to be longer than the zoological ones, for many botanists appear to consider an article incomplete without a three-page table or an even longer appendix listing every species (sometimes with varieties or cultivars) examined during the research. Hence the 900 species with which we began. Each botanical entry takes longer too, for the botanists consider the author name or names essential even in an index, whereas author names are not included in the zoological index. And some of those authors have awfully long names. Welcome is the plant which has not been renamed since Linnaeus' time!

While on the subject of names, it seems to me that genus and species names are getting longer. The fashion today seems to be to add an extra bit to an already existing genus when erecting a new one or to amalgamate two characters of the organism. So we have seen the erection of *Galapogocythere*, *Anonychocheirus*, *Pseudocharaciopsis* and *Craspedodromophyllum* and new species names *parvibullatus*, *parapraecipua*, *distinctipennis* and *austroafricanum*. I suppose such a trend is inevitable, the number of possible short names is finite after all, but as an indexer I would swap a *Thrixanthocereus blossfeldiorum* (Werderm.) Briton & Rose for a *Vicia faba* L. any time!

PAMELA FOREY

RECORD OF THE PROCEEDINGS OF THE LINNEAN SOCIETY OF LONDON FOR THE SESSION 1984–85

1. General Meetings and Lectures

Details of the Meetings held in the Society's Rooms have been included in *The Linnean 1* (3): 5–8, *1* (4): 7–11 and *1* (5): 6–7.

There was one change to this published programme:

17 January 1985. Due to inclement weather, drifting snow on the motorway, and a strike of railway staff between London and the Midlands, the meeting scheduled in *The Linnean 1* (3): 7–8 was postponed. At very short notice two papers, also on genetics, were read by the President and Dr J. S. Jones.

Professor R. J. Berry P.L.S. (Department of Zoology, University College, London)—*Mouse genes and Robertsonian translocations: an unexpectedly successful introduction experiment*

Abstract

Seventy-seven house mice from the Orkney Island of Eday segregating at a number of allozyme loci (mean heterozygosity 7% per locus) and fixed for three pairs of Robertsonian translocations (4, 10; 3–14; 9, 12) were released in 1981 on the Isle of May (Firth of Forth), where the existing mice were chromosomally normal and homozygous at *c.* 100 loci scored electrophonetically. Contrary to the expectation of Lewontin and Dunn's simulation model (based on *t*-allele observations) and the test of this on Great Gull Island, the introduced mice crossed readily with the natives. The spread of the introduced traits was described.

Dr J. S. Jones F.L.S. (The Galton Laboratory, Department of Genetics and Biometry, University College, London)—*Habitat Choice and Genetic Diversity*

Abstract

It is often claimed that animals living in ecologically diverse habitats show relatively high levels of genetic variation. I have studied the possibility that this may be related to an ability, genetically different individuals have to occupy that part of the habitat in which they are relatively fit. Experiments with snails marked with a paint which fades at a known rate when exposed to the sun, and with *Drosophila* carrying an eye mutant whose appearance depends on temperature, show that an ability to choose an ecological niche near an individual's thermal optimum may lead to genetic differences in individual behaviour, and hence perhaps to the maintenance of polymorphism.

The 1985 Royal Society's Wilkins Lecture was given on 18 April by Professor W. T. Stearn P.P.L.S., on the subject of *John Wilkin, John Ray and Carl Linnaeus*

Abstract

This lecture dealt primarily with the inter-relationship of the concepts and works of John Wilkins and John Ray in the 17th century with those of Carl Linnaeus in the 18th century, which led to the now internationally used methods of naming animals and plants.

The first half of the 18th century was pre-eminently the age of the encyclopaedia or dictionary, which both assembled available knowledge in an orderly form convenient for retrieval and added much that was new. It arose from the upsurge of enquiry and speculation in the 17th century connected, as regards botany and zoology, with overseas colonization by the British, Dutch

and French. This brought to the attention of European naturalists a host of hitherto unknown animals and plants to be classified, described and named. Sharing of knowledge about them raised not only taxonomic, but also linguistic and terminological problems. Thus it led John Wilkins to devote much thought to the formation of an international language as well as to speculation on how Noah got so many diverse animals into the Ark. The botanical and zoological tables hastily compiled by Ray and Willughby for Wilkin's *An Essay towards a Real Character and a Philosophical Language* (1668) foreshadowed their later monumental works. These provided much information for the 18th century encyclopaedic works of Carl Linnaeus, whose pictorial and metaphorical thinking needed concrete visual evidence as a basis for correlating past investigations and providing a practical framework of classification and nomenclature. The latter not only met the needs of his time, its methodology has proved fundamental to modern biological communication.

2. Symposia

During the year five symposia were held jointly with other societies. General remarks are included in the Report of Council, p. 25. Résumés and publication details are set out below.

Host and parasite populations: genetics and ecology

This symposium, which was a joint meeting with the British Society for Parasitology, was held at the University of Keele on 12 and 13 July 1984. The convenors were Dr D. Rollinson and Professor C. Arme.

The meeting covered recent advances in the understanding of the interaction between host and parasite populations gained from field, experimental and theoretical research. Particular emphasis was given to the significance of genetic variation in the interpretation of the ecology of host–parasite interactions. Some 65 people, representing many different countries and disciplines attended over the two days. There was active and stimulating discussion both during and after the scientific sessions which owed much of the pleasant surroundings and relaxed atmosphere provided by the University of Keele.

The Proceedings have been published under the title *Ecology and Genetics of Host–Parasite Interactions* (Eds D. Rollinson & R. M. Anderson), ISBN 0.12.593690.7.

Insects and the Plant Surface

This, the twelfth symposium of The Linnean Society, was held jointly with the Botany School and the Department of Zoology of Oxford University in the Mary Sunley building of St. Catherine's College between 15 and 17 July 1984. The convenors were Sir Richard Southwood F.R.S. and Dr Barry Juniper. For many of the eighty-two delegates this was the first large scale meeting between entomologists and plant scientists, and extensive discussion ensued.

The twenty invited speakers, international authorities on the plant surface and phytophagous insects, covered subjects ranging from detailed descriptions of the fine structure and microclimate of the plant surface to the evolution of plant–insect relationships and the possible role of plant surfaces in controlling pests of cattle.

Displays consisted of thirteen poster exhibits and a live display of material from the Oxford Botanic Garden which included potatoes, bromeliads, and carnivorous plants.

The Volume of the Proceedings, edited by the convenors and published by Edward Arnold under the above title, ISBN 0.7131.2909.3, is expected to have wide appeal to the academic botanist concerned with the finer details of surface structure, to the agronomist concerned with plant protection methods which do not include the use of insecticides, to the entomologist interested in insect behaviour and to the general biologist for its insights into the co-evolution of plants and insects.

Contemporary Issues in Systematics

This joint meeting of The Linnean Society, the Willi Hennig Society and the Systematics Association was held in the John Smith Flett Theatre IGS and the lecture theatre at the British Museum (Natural History) on 16–21 July 1984. The Convenor was Dr C. J. Humphries.

It was the fourth meeting of the Willi Hennig Society, and the first to be held in Europe. It was held as a joint meeting to attract a large number of participants and resulted in an attendance of 255 delegates from 18 nations including South Africa, Australia and New Zealand.

Two outings were arranged, one to Charles Darwin's House, Down House, in Kent; and the other to the Royal Botanic Gardens and Mycological Institute, Kew, Surrey. The social events included a reception in the Library of the Society, *The Linnean 1* (4): 3, and a dinner after which delegates were addressed by Dr J. S. Farris, The President of the Willi Hennig Society.

The main topics discussed were philosophy, evolutionary theory, homology, methodology, land plant classification, the taxonomy of tetrapods and biogeography.

Fifty-four papers were presented and nine posters were displayed. Papers from the meeting and a review (by Josephine Camus) will be published in the quarterly Journal *Cladistics*, Vol. 1, no. 3, which will appear in January.

Pollen and Spores: Form and Function

This international joint symposium of The Linnean Society and The Systematics Association was held at the rooms of the Linnean Society on 27 and 28 March 1985, and at the British Museum (Natural History) on 29 March. The convenors were Dr I. K. Ferguson and Dr S. Blackmore.

About 112 registrants from over twenty countries attended the meeting to hear twenty-nine papers dealing with fossil, living and preserved pollen and spores. The topics covered included ultrastructural observations on developing, mature and germinating pollen and spores; experimental work on living material; surveys of a variety of taxa and interpretations of the fossil record. From the papers presented it was clear that the understanding of adaptations in pollen grains and spores is growing rapidly but it still far from complete. The need for further work was constantly emphasized, observations of pollen and spore biology in the field being much too scarce, particularly in the tropics, and experimental work having tended to involve a relatively few well documented taxa.

Some of the 26 posters exhibited in the Library will be included with the

presented papers in the Volume of Proceedings being published in the Linnean Symposium Series by Academic Press.

Systematic and Taxonomic Approaches in Palaeobotany

This symposium, jointly sponsored by The Linnean Society and the Systematics Association, was held at Goldsmith's College, London on 1–3 April. The convenor was Dr B. A. Thomas, Goldsmith's College, and the field excursion to the Isle of Sheppey on the preceding day was led by Dr M. E. Collinson, King's College, London. There were eighty participants from thirteen countries. Support for the symposium was given by The Royal Society, The British Council, British Petroleum plc, and Shell (U.K.) Exploration and Production. The papers are to be published as a special volume of The Systematics Association by Oxford University Press, ISBN 0.19.857704.4.

3. Conversazione

The President and Mrs Berry received guests in the Library on the evening of 2 May 1985.

The exhibits, which were on display in the Council Room and Library were: Recent Developments in Field Instrumentation for Fruit Bat Analysis, Mr K. Maries and Mr N. Naylor (QMC Instruments Ltd); Marine Life Identification Guides, Dr R. Earll (Marine Conservation Society); Banks' Florilegium—The Flowering of the Pacific, Miss E. Shaughnessy (Alecto Historical Editions); The Oxford University Fruit Bat Project to the Northern Mariana Islands—1983, Mr N. Payne (Expedition Leader); Society Graffiti—a selection of annotations made to documents in the Society's possession (Miss G. Douglas); The Phytochemistry of Aloes, Messrs T. Reynolds and D. Grindlay, and Misses J. Beaumont and J. Dring (Royal Botanic Gardens, Kew); Illustrations of Birds and Insects, Mr S. Falk (Nature Conservancy Council). The floral decorations by the staff of the Royal Botanic Gardens, Kew, were listed by name for the benefit of botanists and gardeners.

During the afternoon a party of Fellows and guests visited the British Museum (Natural History) where they were entertained by Mr. J. Cannon F.L.S., the Keeper of Botany and his staff.

4. The Anniversary Meeting

This was held on 24 May 1985 with Prof. R. J. Berry, President, in the chair.

Elections

After extracts of the relevant Bye-Laws had been read, the President appointed Mr F. H. Brightman, Prof. B. G. Gardiner and Dr P. H. Greenwood as Scrutineers and declared the Ballots open. The results of the ballots were:

New Members of Council:	replacing:
Mr E. F. Greenwood	Prof. E. A. Bell
Prof. J. G. Hawkes	Prof. R. J. Berry
Prof. D. L. Hawksworth	Dr J. H. Crothers
Prof. J. D. Pye	Dr I. K. Ferguson
Dr D. Rollinson	Dr C. Patterson
Prof. M. H. Williamson	Prof. Sir Richard Southwood F.R.S.

Officers:

President: Prof. W. G. Chaloner F.R.S.
Treasurer: Mr C. M. Hutt
Secretaries: Dr D. M. Kermack (Zoology)
Dr F. A. Bisby (Botany)
Prof. J. D. Pye (Editorial)

Foreign Members:

Prof. Per Brinck, Sweden
Prof. Stephen Jay Gould, United States of America
Prof. Georg Pilleri F.L.S., Switzerland
Prof. Helmut Zwölfer, Federal German Republic

Fellows and Associates as in *The Linnean 1* (6): 9

Presentation of Medals and Awards

The President read the citations and presented the Linnean Medals, the H. H. Bloomer Award, and the Bicentenary Medal.

Linnean Medal for Botany

Professor Jeffrey Barry Harborne

Jeffrey Harborne obtained both his B.Sc. and Ph.D. degrees from the Chemistry Department of the University of Bristol. After a short period as Lecturer in that same Department, he was awarded an Eli Lilly post-doctoral Research Fellowship in Organic Chemistry which took him for two years to the University of California at Los Angeles where he worked with the late Professor Geissman.

While at Bristol, Jeffrey had developed an interest in plant polyphenols and, more especially, in the flavonoid pigments. This interest was extended and continued in California, and came to involve him in the world of plants and the application of chemistry to the problems of plant taxonomy and plant ecology.

On returning to England and the John Innes Institute, he undertook a study of the biochemistry of the tuberous Solanums and its relevance to the genetics, taxonomy and disease resistance of this group of plants. This work and subsequent studies of polyphenols in other families established his reputation in this field and in 1966 he was awarded the degree of D.Sc. by the University of Bristol.

Senior research positions in the Botany Departments of the Universities of Liverpool and Reading were followed by his appointment to a Readership and finally a personal Professorship at the University of Reading in 1976. Throughout this period and subsequently, Jeffrey made a major and continuing contribution to phytochemistry, publishing either on his own or with collaborators, over 100 original research papers and many review articles on plant phenolics and related subjects. He was joint editor of fifteen volumes on different aspects of phytochemistry as well as being author of three books and joint author of a fourth. His excellent student text, *Introduction to Ecological Biochemistry*, which first appeared in 1977, presented this subject for the first time to many students and presented it with all the enthusiasm, interest and clarity which characterizes all Jeffrey Harborne's writing. The appearance of a second edition five years later, which has now been translated into Japanese, Spanish

and Russian, is comment enough on its significance. In the past year he has, with Professor B. L. Turner of Austin, Texas, published a new volume entitled *Plant Chemosystematics* in which the growing importance of interdisciplinary studies is again emphasized.

In addition to his research, writing and teaching, Jeffrey Harborne has made a major contribution to our knowledge of the chemistry and biochemistry of plants in his rôle as executive Editor of the journal *Phytochemistry* and his invaluable support of the Phytochemical Society, now the Phytochemical Society of Europe, of which he was Chairman from 1972 to 1974.

Jeffrey Harborne is a scientist whose work is respected throughout the world but it is perhaps his unassuming nature, sense of humour and the patience with which he explains his work to students and colleagues alike that make him such a valuable member of the botanical community and a most worthy recipient of this medal.

Linnean Medal for Zoology

Professor Arthur James Cain

Arthur Cain's studies in evolutionary biology are internationally known and admired. His friends and colleagues continue to be astonished by the breadth and depth of his knowledge of animals and plants, and by the sureness of his biological understanding. He is, in the very best sense of that word, a naturalist—quite possibly the most accomplished in the world today.

He started research at Oxford immediately after the Second World War, working with John Baker on the histochemistry of lipoids. The papers that he wrote in the late 1940s and early 1950s are still necessary reading for histochemists, but even then his consuming interest in evolution was evident. He started a very productive partnership with Philip Sheppard that resulted in a series of classic papers on the ecological genetics of polymorphism in the land snail *Cepaea nemoralis*. These showed that the variety of shell-colour and banding, which until then had been supposed to be neutral characters, are subject to strong natural selection.

Arthur Cain has maintained his interest in land molluscs. In the early 1960s, with John Currey, he discovered the phenomenon of 'area effects' in *Cepaea*, patterns of genotype-frequencies in which particular forms predominate throughout areas much larger than the panmictic unit. He engaged in many vigorous debates about the explanation of these patterns, and emphasized the importance of natural selection by components of climate. This interest led to some elegant studies (with John Currey) on fossil snails, relating temporal changes in genotype-frequencies to changing patterns of climate. More recently, he has been studying the factors that influence the shapes of snail shells, and the proportions of different categories of shapes within molluscan faunas.

Important though it is, the work on snails occupies less than half of Arthur Cain's research output. He has also written with distinction on the evolution and taxonomy of oligochaete worms, fruit pigeons and parrots. His contributions to the theory of taxonomy have been very important. Not least among them was the development, in 1960 and 1961, of a novel system for numerical taxonomy. He has enlarged our understanding of homology and analogy, studied the taxonomic status of the species, superspecies and genus, discussed the relation between functional and taxonomic importance, and

illuminated the difficulties of reconstructing phylogenies when convergent and parallel evolution are common. Two of his works deserve special mention. The first is his book *Animal Species and Their Evolution* published in 1954 and later reprinted in several languages. As a fount of evolutionary wisdom, it has assuaged the thirsts of thousands of undergraduates, and of very many others. The second work was published ten years later. It was a paper entitled "The perfection of animals", and gave a brilliant account of the extraordinary precision and strength of natural selection in bringing about changes in animal form and function.

No history of Arthur Cain can be complete without a mention of his record as a teacher. At a meeting of the Population Genetics Group a few years ago, it was estimated that among those present, about 120 people, 40%, were his academic descendants (either students, or students of students, or students of students of students). None of those taught by him can forget his unique combination of enthusiasm, knowledge, intelligence, encouragement, irascibility and disapproval. None have escaped being changed by it, usually for the better, and few have escaped a lasting respect for the scientist, and a lasting affection for the man. He is a natural selection for the Linnean Medal.

The H. H. Bloomer Award

Mr Bertram Evelyn Smythies

Bill Smythies' grandfather, Arthur Smythies (a member of the Indian Forest Service 1870–1903), inspired in him at any early age a life-long interest in natural history, and taught him to name the flora of North Devon with the aid of Smith & Sowerby's *English Botany*. In 1930 he went up to Cambridge and read for both the Mathematical Tripos and the Natural Sciences Tripos. However, midway through his first year he was appointed as a probationer in the Burma Forest Service and this involved a move to Oxford University after the summer term because at that time Cambridge had no degree course in forestry. Passing his finals with distinction in 1933 he took up his appointment in Burma in 1934. Encouraged by the late H. C. Smith, at that time Game Warden for Burma, he took up the study of birds and compiled a handbook on the birds of Burma which was printed and published in Rangoon in 1940.

When Burma became independent in January 1948 most British officers were made redundant. Bill took the opportunity to spend the first four months of his retirement leave exploring a famous plant-hunting locality on the Yunnan border. The field notes on the birds of these areas were included in the second edition of the Burma handbook. In 1949 he returned to the forest service in Sarawak and until his retirement in 1964 he served in Sarawak and Brunei. Encouraged by the Governor, Sir Anthony Abell, he compiled a handbook on the birds of Borneo, published in 1960.

In 1964 he retired to Estepona in Spain, studied and photographed the Mediterranean flora, and was co-author with Oleg Polunin of *A Field Guide to the Flowers of S.W. Europe* (1973). He collected material especially needed by authors of treatments for *Flora Europaea* and was adept at discovering and elucidating problems, often hitherto unsuspected, in a wide variety of groups. Since returning to England and settling in Surrey in 1979 most of his spare time has been taken up in writing *Flora of Spain and the Balearic Islands. Checklist of*

vascular plants, the first two parts of which were published in 1984 and the remaining one will appear in 1985. It will be an essential source for future work on the Spanish flora.

For his remarkable contributions to natural history both in southeast Asia and in the Iberian penninsula, Bill Smythies is a very worthy recipient of the H. H. Bloomer award.

Bicentenary Medal

Dr Nicholas Hamilton Barton

Theoretical population genetics is very good at telling us what *should* happen in natural populations; and its practitioners are often disappointed to find that what actually does happen is very different from their predictions. Ecological geneticists, in the same way, may suffer for months in the field in an attempt to describe patterns of gene frequency in nature; and are equivalently depressed to find that they are usually unable to provide any convincing explanation of why their populations behave in the way that they do.

Nick Barton is one of the very few evolutionists who combines skills in field biology with considerable mathematical expertise; and rather than taking advantage of his talents to produce papers incomprehensible both to theoreticians and to field workers he has succeeded in producing a series of papers which are now beginning to be recognized as being of central importance to both. After obtaining his first degree at Cambridge, Nick Barton carried out his doctoral work at the University of East Anglia under the Supervision of Dr Godfrey Hewitt. Here he became interested in the evolutionary importance of hybrid zones, and carried out an extensive survey of patterns of chromosomal, morphological and molecular variation across a narrow hybrid zone between two races of the the Alpine grasshopper *Apodisma pedestris*. This work, together with complementary studies of the extent of dispersal of animals across the zone and of the breakdown of fitness in hybrid compared to parental populations, has continued since his appointment as a Lecturer in the Department of Genetics and Biometry at University College London, and now provides perhaps the most complete description of a hybrid zone in existence.

One of the central questions of evolutionary biology is the nature and extent of the genetic differences involved in the origins of species. Nick Barton has taken advantage of his empirical measures of genetic structuring, gene flow and fitness parameters in the *Podisma* to produce an important theoretical treatment of the evolution of hybrid zones, and of the numbers of genes influencing fitness which must separate the hybridizing taxa. This work has shown that even evolving groups sufficiently similar to produce hybrids in nature differ from each other in large numbers of genes affecting fitness, so that speciation must in most cases be accompanied by genetic events at large numbers of gene loci. This view contrasts with some recent theories of 'instant speciation' and, perhaps appropriately for the recipient of a Linnean Society medal, accords much more closely with Darwin's view that the origin of species is a gradual process no different in kind from the genetic events which take place within existing taxa.

Nick Barton's interests have now extended in one direction to the use of statistical techniques developed by theoretical physicists in population genetics; and in the other to the role of migration in controlling the distribution of hybrid

zones in toads. There are few mathematical herpetologists or ecological high-energy physicists, and even fewer who combine both talents. As one such, Nick Barton is a worthy recipient of the Bicentenary Medal.

Treasurer's Report

The balance sheet for 1984 points to a good financial year. After transferring £45,000 to contingency for repairs and improvements we showed an excess of income over expenditure of some £7,000, an increase over last year of 30%. The emphasis on this particular contingency is to allow for the cost of forthcoming in-house decoration. For instance, refurbishment of the Meeting Room alone, to be completed in good time for the Bicentenary, will entail an expenditure of approximately £40,000. It is a healthy sign that we can put aside such an amount from one year's income and at the same time make a profit, although we must take into account that the sterling/dollar rate of exchange, for the second year in succession, was in our favour and provided benefit. This may not always be the case.

As could be expected Academic Press helped us pay our way. The sale of our jointly-owned publications grossed us £82,000, an increase of 33% over last year.

Our investments conformed to past pattern of progress. The market value of equities and gilts in the General Account, at the end of December 1984 was £314,000, an increase of 34% compared with the previous year. Using the same method of comparison the Trust Funds were £117,000, an increase of nearly 15%. For these improvements we are as ever grateful for the advice of our brokers and that of our erstwhile Treasurer, Roger Goodenough.

The 1983 report contained a forecast that in the following year we would return to Fellows, by way of free copies of journals at cost, 105% of the annual contributions received by the Society. In the event this proved to be 107%, thus confirming the need, in 1985, to increase the contributions. We hope that a lengthy period will now elapse before such steps need again be recommended to Fellows.

Finally, my annual very sincere thanks to those who make the task of Treasurer so very easy—to Council, to the Finance Committee and especially to our staff, always so willing to help and who I know will not take it amiss if I single out Sue Darell-Brown.

Report of Council

In opening the meeting the President reported that Dr Colin Patterson had suffered a heart attack six months before and, although now recovered and back at work he had asked to be relieved of his duties as Editorial Secretary. Council wished to record its and the Society's thanks for Dr Patterson's many endeavours and wished him good fortune in the future.

Council endorsed the President's congratulations to Professor R. E. Holttum on reaching his 90th year and his thanks to Miss Elizabeth Young, Mrs Holttum, and Professor and Mrs Stearn for the new Presidential cushion bearing the Society's Coat of Arms. Council congratulates Dr Humphry Greenwood and Dr Miriam Rothschild, both for being elected Fellows of the Royal Society and the latter also on receipt of the Wigglesworth medal of the

Royal Entomological Society; and Professor Bill Chaloner on receipt of the medal of the American Association of Stratigraphic Palynologists.

Meetings and Symposia

These are reported elsewhere and with the exception of the meeting on 17 January 1985, p. 17, ran as programmed.

There were five major symposia during the session and all were very well attended and considered most successful. Council is pleased to see that the volume of the symposium on *Host and Parasite Populations: genetics and ecology* has been dedicated to Dr Chris Wright F.L.S. who, but for his most untimely demise, would have convened the meeting a year ago, *The Linnean, 1* (4): 33.

A major flaw in the administration of Chelsea College which was to have arranged the dinner for the delegates to the Pollen and Spores meeting resulted in no dinner but an abject apology and a remission of all accommodation charges.

The seventeenth consecutive series of sixth-form lectures has proved as successful as ever, and the one day symposium, held at the beginning of the Easter Term has now become an additional regular feature. Mr Nigel Purchon continues to run this programme.

Wishing to extend the scope of these popular lectures Council has appointed a sub-committee under Dr David Smith to investigate the possibility of extending the series into the provinces. It solicits assistance from Fellows in or near to Taunton, Buckingham and Birmingham; and possibly Manchester as these are the initially selected centres.

The General Interest lectures and Society evenings now have a regular schedule, one a year being devoted to the Society or a topic associated with Linnaeus. Council commends these as occasions to welcome families and friends and the otherwise biologically less knowledgeable.

Two practical workshops for sixth-form teachers were again held during the year; on Identification on 24 November 1984 and Plant Anatomy on 16 March 1985. Mr Adam Cade, now a Fellow, masterminded the programme from Norwood Hall and organized the former, whilst Drs David Cutler and Paula Rudall arranged and ran the latter. The scope of these workshops is now being widened when appropriate to include the Fellowship as a whole.

Natural History Societies Liaison

Council has agreed to the formation of a Natural History Committee to act as a point of contact with such bodies as the Royal Society for Nature Conservation, The National Trust, and the national and international organisations.

Publications

In spite of the general constraints on Library and scientific funding, journal sales have held up well and copy continues to arrive steadily for all three journals. There will be no change in the number of issues during the coming session. Council is most pleased that the *Biological Journal*, under Professor Berry, showed a profit during its first year with a third volume. Dr Michael Dick will be relinquishing his editorship of the Botanical Journal during the coming year as will Professor David Pye his editorship of the *Zoological Journal*, he having assumed the temporary and now permanent office of Editorial Secretary.

New editions of *The Synopses of the British Fauna* are again starting to be printed, with five issues already published by E. J. Brill of Leiden, and three in production. Unforeseen difficulties over dealing with a foreign publishing house producing material mainly for the U.K. home market remain but are being overcome. The closure of Brill's London office and a shortage of publicity material have created much unnecessary work for the Society's editor, Dr Doris Kermack.

Council has approved the continued existence of *The Linnean*, under the editorship of Prof. Brian Gardiner, and it is now entering its third year of publication. It has become the main vehicle for transmitting Society wide affairs, and people outside the Society are also beginning to respond to its contents.

The proceedings of symposia are normally published as hardback books in the Society's symposium series. However, with the advent of more jointly organized meetings, publication has to be mutually agreed with the other participants. In the case of meetings with the Systematics Association the agreement is that we should publish alternately and thus benefit from the full share of royalties from every other symposium. In the past session the following were agreed:

Host and Parasite Populations	Academic Press
Plant Surface and Insects	Edward Arnold
Contemporary Issues in Systematics	Meckler Publishing
Pollen and Spores	Academic Press
Taxonomy of Fossil Plants	Oxford University Press

The proceedings of the symposium on *Evolution in the Galapagos Islands* has now been printed by Academic Press as a book, ISBN 012.093190.7 (Proc. Lin. Soc., *The Linnean*, *1* (2): 17)

Library

Activity in the Library continues, as last year, to show a steady and healthy increase, as does the number of loans. The staff, temporary and permanent, paid and unpaid, can number up to 14 and we are especially fortunate in retaining the voluntary services of so many part time but dedicated assistants. To the regular helpers from NADFAS, Mrs Pat Bratton, Melba Coombs, Sybil Down, Mary Forbes, Peggy Mayow and Ann Peacock, and to Dr Ethel Barrow, Mrs Margot Walker and Mr Desmond Cull we must now add Mrs Jennifer Norman and Mrs Iris Hughes. The Manpower Services Commission continues to support our work by providing up to four able and keen graduates. The labelling and cleaning of all the important books in the reading room has been completed and the lower gallery is now receiving attention. We are glad that of the young people we have had under training and for experience, three have already been placed in library-associated occupations.

The Library has been used three times for the official launch of biologically associated books. Council commends such use as it is right within the Society's objectives as well as, and in addition to, making both non-Fellow guests and members of the scientific press aware of the Society and its business.

On 12 July 1984 the Society honoured Professor Irene Manton F.R.S. in her 80th year by holding a reception for her in the Library. Her well-wishers who could attend came from as far afield as Switzerland, Holland, America and the North of Scotland.

Specialist Groups

During the year the Computer Applications Group has been formed and has met, and Council has agreed to the formation of the Freshwater Group. This latter, the first zoological Specialist Group, is being masterminded by the London Freshwater Group, an association of biologists and other scientists mainly outside the Society, and the intention is for it to meet regularly in the Rooms.

Society Treasures

There is a steady stream of requests for the loan of material from the Rooms, books, manuscripts and portraits especially, for use elsewhere in exhibitions, television films and magazine articles. Recently we have helped with the Edward Lear television programme and the exhibition of his work at the Royal Academy which will shortly be transferred to New York. The British Museum (Natural History) is borrowing a manuscript for its exhibition on Audobon. The founder's portrait is being loaned to the Norwich Museum.

Council considers each request on its merits but usually agrees, believing this is a most sensible way to make the enormous wealth of our possessions available for the education and enjoyment of others.

The Bye-Laws

Two amendments have been made to the Bye-Laws—necessitated by the revised scales of Annual Contributions, p. 28, and as a tidying up of the definition of Foreign Members, p. 18, Ch. 5, Sect. 6.

Bicentenary

The Scientific Programme is being arranged about a series of major meetings run jointly with other Societies, particularly those who owed their origins to the Linnean Society in its earlier days. However, as there are too many subjects to be addressed in one or even the two sessions spanning 1988, the programme has been spaced to run also for the two years on either side.

On receiving a favourable report from the reconnaissance, Council approved that the Expedition, already announced in *The Linnean 1* (4) and *1* (5) should go ahead. Plans which are now being formulated with the Royal Geographical Society, will be described and promulgated through *The Linnean*; see also this issue, *The Linnean*, *2* (1): 1.

With activities occurring in many fields, Council has appointed Professor J. G. Hawkes as the co-ordinator with especial reference to the media.

Staff

There has been no change to the permanent staff of John Fiddian-Green, Sue Darell-Brown, Gina Douglas, Linda Glavin, Eve Hickey and Shirley Theobald. However, a computer was acquired and brought into use. During the year it had digested 4,902,912 bytes of information, and all regular office paperwork is now worked through the associated word processor.

Council wishes to thank all those who have worked on behalf of the Society over the year. Besides those named in this report, Council is grateful to the Symposia convenors, Editorial Boards, referees and indexers of all three Journals.

Council wishes to record its thanks especially to Professor W. T. Stearn for his work over so many years for and on behalf of the Society, both privately and more especially for his work on the Collections Curatorial Committee, from which he has just retired. He was a member for twenty-six years, Botanical Curator equally long, and its Chairman for the last seventeen.

The Membership

The following are the annual statistics and names not yet recorded:

Date of Election	see *The Linnean*	Fellows	Associates	Student Associates
22 November 1984	*1* (5): 5	47	5	—
14 February 1985	*1* (5): 5/6	34	3	1
18 April 1985	*1* (6): 9	21	2	—
24 May 1985	*1* (6): 9	17	2	—
Total		119	12	1

Current membership records are now computerized and we are able accurately to give a total of Fellows, Associates and Student Associates on file. This is not the precise size of the Society as there is always a backlog of unrecorded deaths, new payments, and Fellows who have 'gone away'.

During the year we have had to record the deaths of four Foreign Members, one Fellow *honoris causa*, and twenty-four Fellows. Included in the latter is Professor Erroll White, President 1964–67, whose obituary is in *The Linnean*, *1* (6): 28.

21 Fellows have withdrawn

62 Fellows were removed for non-payment of their Annual Contributions but two Fellows were re-admitted and 18 reinstated following payment of sums overdue

The deaths of 29 Members have been reported

Dr Peter David Weiste Barnard, B.Sc., Ph.D. Born: 3 June 1932. Died: July 1985. Elected: 18 April 1963. Obituary: *The Linnean, 2* (1).

David Henry Barry, B.Sc. Born: 16 January 1929. Died: March 1984. Elected: 20 June 1974.

Dr Thomas Henry Barry, M.Sc., D.Sc., Ph.D. Born: 2 October 1924. Died: 10 December 1984. Elected: 10 December 1964.

Major Kenneth William Braid, O.B.E., M.A., B.Sc. Died: 29 August 1984. Elected: 5 March 1925.

Donald Gilbert Coursey, B.Sc. Born: 13 August 1929. Died: 31 December 1983. Elected: 16 January 1969.

Dr Ursula K. Duncan, M.A., LLD. Died: 27 January 1985 (aged 74). Elected: 24 May 1947. Obituary: *The Times* 29 January 1985.

Miss Phyllis Irene Edwards, B.Sc. Born: 28 November 1916. Death reported November 1984. Elected: 24 May 1960. Obituary: *The Times* 17 November 1984 and *The Linnean, 1* (5).

Professor Emeritus Gottfried S. Fraenkel. Born: 23 April 1901. Died: 26 October 1984. Elected F.M.L.S. 27 May 1982. Obituary: *The New York Times*, 1 November 1984.

John Bartholomew Hall, B.Sc. Died: 18 May 1984 (aged 51). Elected: 22 April 1965.

Robert William Hayman. Fellow *honoris causa*. Died: 25 February 1985. Elected: 24 May 1963.

Royton Edward Heath. Born: 7 August 1907. Died: 16 February 1985. Elected: 20 November 1958.

Sir Harold George Hillier, C.B.E., V.M.H. Born: 2 January 1905. Died: 8 January 1985. Elected: 18 November 1954 Obituary: *The Daily Telegraph* 10 January 1985.

William Leonard Jakes, F. Inst. Pet. Born: 24 February 1919. Died: 25 September 1984. Elected: 4 November 1976.

Professor Kailas Nath Kaul, M.Sc. Born: 28 January 1935. Died: 1983. Elected: 24 May 1940.

Francis Philip Knight, V.M.H. Born: 5 October 1902. Died: 10 March 1985. Elected: 27 April 1950. Obituary: *The Times* 18 March 1985.

Mrs Margery Knight. Death reported to have occurred prior to 1984. Elected: 21 June 1923.

John Richard Maconochie. Born: 13 June 1941. Died: January 1984. Elected: 4 November 1976.

Francisco d'Ascenção Mendonça. Born: 30 May 1889. Died: probably 1982. Elected Fellow 24 April 1952. Elected F.M.L.S. 24 May 1958.

William Hitchock Palmer, M.A. Born: 30 January 1905. Died: 5 August 1984. Elected: 15 June 1967.

Dr Julian Rzóska, D.Phil. Born: 10 January 1900. Died: 31 December 1984. Elected: 15 November 1956 Obituary: *The Linnean, 1* (5).

Miss Lorna Iris Scott, M.Sc. Born: 1894. Died: 13 December 1984. Elected: 24 May 1945.

Walter Peter Scott. Born: 14 November 1921. Died: February 1985. Elected: 18 February 1982.

Professor George Gaylord Simpson, D.Sc., Ph.D., F.M.R.S. Died: 6 October 1984. Elected Foreign Member 1947. Linnean Gold Medal 1962.

Mrs Phyllis Langan Taylor. Born: 8 October 1924. Died: 28 March 1985. Elected: 22 May 1980.

Miss Phyllis Maud Taylor, M.A. Died: 6 March 1985 (aged 86). Elected: 6 March 1930.

Matt Templeton. Born: 22 April 1924. Died: 6 March 1985. Elected: 14 March 1968.

William Frank Walker, N.D.H., V.M., F.R.I.A.S. Born: 2 February 1914. Died: 15 March 1985. Elected: 18 January 1973.

Dr Errol Ivor White, C.B.E., D.Sc., Ph.D., F.R.S. Born: 30 June 1901. Died: 1985. Elected: 24 May 1946. Linnean Medal 1970. Obituary: *The Linnean, 1* (6).

Miss Mary Emmeline Wood, M.R.I. Born: 2 September 1903. Died: 17 February 1985. Elected: 20 January 1972.

Corrigendum

In *The Linnean, 1* (3): 23, for Mary Sherwood Campbell read May Sherwood Campbell.

Presidential Address

The President gave an address entitled *Where Biology Meets.*

The motion that this address be published, proposed by Dr John Crothers and seconded by Mr Tom Pain, was carried unanimously. After the result of the election for the Officers had been announced, Professor Chaloner took the chair. He thanked the outgoing President on behalf of the Society for the work he had done during his three years as President.

He appointed as Vice-Presidents for the 1985–86 session:

Professor B. C. Clarke
Professor J. G. Hawkes
Professor D. L. Hawksworth
Mr C. M. Hutt

Benefactions

During the course of the year the Society has received the following donations of £20.00 and upwards:

Dr D. G. Catcheside F.R.S.	£20
Dr A. D. Peggs F.L.S.	£20
Dr F. R. Goodenough F.L.S. to the Goodenough fund,	£200
Mr W. Jovanovich	£15,000
Estate of Mrs Maxwell-Knight	£199
Mr D. Taylor Pescod F.L.S.	£25

5. Balance sheet and accounts

The Linnean Society of London

Balance Sheet
31 December 1984

31 December 1983 £	ASSETS	£	£
	Investments (as per schedule)		
142,480	(Market value 31 December 1984: £314,803)		186,852
47,725	**Sundry Debtors**		65,113
	Share of Stock held on Joint Publishing Account		
178	(at valuation)		—
18,926	**Deposit and Current Account balances**		35,624
209,309			287,589
	Less: Current Liabilities		
15,249	Contributions received for future years	15,435	
37,111	Provision for repairs and improvements (Note 1)	81,334	
4,939	Sundry creditors and provisions	11,496	
57,299			108,265
152,010			179,324
	Trust Funds		
	Investments (as per schedule)		
67,748	(Market Value 31 December 1984: £117,398)	68,328	
29,372	Deposit and Current Account balances	24,349	
97,120			92,677
£249,130			£272,001
	Represented by:—		
	General Funds		
136,595	General Fund (Note 2)	164,378	
15,415	Publications Fund (Note 3)	14,946	
152,010			179,324
	Trust Funds		
97,120	Balance of Funds		92,677
£249,130			£272,001

C. M. Hutt Treasurer

F. H. Brightman
W. G. Chaloner
F. Mussett
D. A. S. Smith
} Audit Committee

Income and Expenditure Account for the year ended 31 December 1984

1983 £		£
	INCOME	
36,134	Annual contributions received	36,134
957	Income tax recoverable on covenanted contributions (year to 5 April 1984)	950
15,799	Dividends and interest	21,505
3,194	Publications—sales of back issues	2,163
248	Donations received	786
6,860	Use of rooms	8,704
	Facilities of Premises	17,405
9,705	Miscellaneous receipts	2,267
	Royalties	6,707
32,865	Publications (Note 6)	43,518
£105,762		£140,139
	EXPENDITURE	
42,942	Salaries and National Insurance	52,816
5,078	Electricity and gas	4,706
3,458	General rates (£7,456 less grant £3,213)	4,243
3,390	Repairs, renewals and insurance	2,736
4,527	Printing, stationery, postage and telephone (including purchase of a computer £6,922)	11,071
1,552	Audit fee	1,645
5,221	Miscellaneous	3,147
2,949	Books and periodicals	3,447
385	Binding, repairs and cleaning books (£1,446 less British Library Grant £1,000)	446
729	Cost of cataloguing	894
—	Newsletter	2,784
70,231		87,935
30,000	Transfer to provision for repairs and improvements	45,000
£100,231		£132,935
£5,531	Excess of Income over Expenditure for the year	£7,204

Report of the Auditors to the Fellows of The Linnean Society of London

We have audited the Financial Statements on pages 32–33 in accordance with approved auditing standards. In our opinion the Financial Statements give a true and fair view of the state of the Society's affairs at 31 December 1984 and of its results and source and application of funds for the year ended on that date.

4, London Wall Buildings
London EC2M 5NT
18 April 1985

FRASER KEEN
(Chartered Accountants)

NOTES TO ACCOUNTS—31 DECEMBER, 1984

Balance Sheet

1983 £		£
Note 1.	**Provision for Repairs and Improvements**	
10,483	Balance at 1 January 1984	37,111
30,000	Transfer from Income and Expenditure Account	45,000
40,483		82,111
3,372	Expenditure during year	777
£37,111	Balance at 31 December 1984	£81,334

Note 2.	**General Fund**	
5,531	Excess of Income over Expenditure for the year	7,204
225	Composition fees received during the year	200
–	Donation	11,800
10,473	Gain on changes of investments during the year	8,579
9,000	Ramsbottom, Linnean Library Bequest	
25,229		27,783
111,366	Balance at 1 January 1984	136,595
£136,595	Balance at 31 December 1984	£164,378

Note 3.	**Publications Fund**	
16,274	Balance at 1 January 1984	15,415
3,466	Transfer from Joint Publishing Account (less due to other Societies £246)	3,267
(377)	*Less:* Stock	
19,363		18,682
3,948	*Less:* Transfer to Income and Expenditure Account	3,736
£15,415	Balance at 31 December 1984	£14,946

Note 4. No value is attributed to the Library, furniture, office equipment and stock of unsold journals in this Balance Sheet. Acquisitions are written off as incurred.

Note 5. Annual contributions in arrears at 31 December 1984 amounted to £3,164 (31 December 1983: £1,499, 75% of which was paid in 1984).

Income and expenditure account

1983		
£		£
Note 6.	**Publications**	
	Half share of surplus on 1984 Joint	
58,101	Publishing Account – Journals	78,956
3,948	Transfer from Publications Fund	3,736
351	Cambridge University Press	316
62,400		83,008
	Less:	
	Contributions to Joint Publishing Account and distribution cost	
28,860	for Journals - Fellows	38,816
675	Editorial expenses	674
29,535		39,490
£32,865	Surplus transferred to Income and Expenditure Account	£43,518

Joint Publishing Account with Academic Press Inc. (London) Ltd.
Income and Expenditure Account for the Publishing year ended 31 December 1984

1983 £		£	£
	Sales—		
225,273	Journal (including Linnean Society contributions)		284,921
15,034	Books		7,382
£240,307			£292,303
7,413	Stock at 1 January 1984		357
	Less: Cost of Synopses acquired by Society and transferred to		
755	Publications (Note 6)		—
6,658			357
	Production costs—		
109,071	Journal		127,008
1,326	Books		—
117,055			127,365
357	*Less:* Stock at 31 December 1984		—
£116,698			£127,365
	Gross Profit for year—		
61,804	Academic Press		82,469
	Linnean Society—		
58,101	Journals	78,956	
3,704	Books: Publications Fund	3,513	
61,805			82,469
£123,609			£164,938

Special Accounts (Trust and Reserve Funds) for the year ended 31 December 1984

	Deposit and current account balances at 1 January 1984	Income: Dividends interest and income tax recovered	Income: Royalties or other receipts	Expenditure: Grants, awards transfers and sundry expenses	Expenditure: Purchase of investments	Expenditure: Administration contribution	Deposit and current account balances at 31 December 1984	Investments at book value
	£	£	£	£	£	£	£	£
P. Appleyard Bequest	2,216	1,407	—	400	55	124	3,044	7,829
The H. H. Bloomer Award Trust	358	276	—	104	12	24	494	1,090
Bonhote Fund	1,483	864	—	700	45	81	1,521	5,673
Goodenough Fund	367	162	200	25	—	13	691	873
Hooker Lecture Fund	298	189	—	—	—	16	471	983
Minchin Fellowship Fund	—	26	—	26*	—	—	—	120
Denis Stanfield Memorial Fund	270	150	—	—	4	15	401	1,107
Trail - Crisp Award Fund	149	75	—	124	—	7	93	336
Westwood Fund	166	107	—	—	7	10	256	683
Jane Jackson Bequest	—	1,319	—	1,319*		—	—	4,088
Flora Europaea Fund	22,728	4,952	3,676	15,477	208	453	15,218	36,389
Omer – Cooper Fund	1,337	1,175	—	—	249	103	2,160	9,157
	£29,372	£10,702	£3,876	£18,175	£580	£846	£24,349	£68,328

*Income transferred to General Income Account.

Schedule of Investments on 31 December 1984

Nominal		General account	Book Value £
£9,000.00		Treasury 12% Stock 1986	8,688
£3,600.00		Treasury 13% Stock 1990	3,624
£7,000.00		Treasury 12½% Stock 1993	6,465
£10,000.00		Treasury 9% Stock 1994	7,272
5,000	Shares	Allied Lyons plc 25p Ordinary Shares	4,696
£1,972.00		Barclays Bank plc Ordinary Stock	2,326
6,400	Shares	B.A.T. Industries plc Ordinary Shares	5,968
9,375	Shares	B.O.C. Group plc 25p Ordinary Shares	5,703
8,000	Shares	Boots Co. plc 25p Ordinary Shares	10,475
12,000	Shares	Cadbury Schweppes plc 25p Ordinary Shares	9,240
7,000	Shares	Coats Patons Ltd. 25p Ordinary Shares	7,627
1,500	Shares	Glaxo Holdings plc 50p Ordinary Shares	2,032
1,250	Units	GUS "A" Ordinary Shares	7,700
3,861	Shares	Land Securities plc £1 Ordinary Shares	5,694
5,250	Shares	Northern Foods plc 25p Ordinary Shares	3,880
1,847	Units	Royal Insurance plc 25p Stock Units	3,233
£11,000.00		Scottish Mortgage & Trust plc 8–14% Stepped Deb.	11,083
2,000	Shares	Shell Transport & Trading Co. plc 25p Ordinary Shares	5,368
10,730	Units	The Equities Investment Fund for Charities	16,711
5,000	Shares	Racal Electronics plc 25p Ordinary Shares	12,468
800	Shares	British Telecom (part paid)	400
			140,653
		National Savings Bank Investment Account	46,199
			£186,852

(Market Value 31 December 1984 £314,803)

Nominal		Trust funds	Book Value £
	Units	The Equities Investment Fund for Charities:	
4,042	,,	Omer–Cooper Fund	6,593
6,496	,,	Jane Jackson Bequest	4,088
5,891	,,	Appleyard Bequest	7,267
1,180	,,	Bloomer Award Fund	971
626	,,	Goodenough Fund	873
843	,,	Hooker Lecture Fund	983
126	,,	Minchin Fund	120
715	,,	Stanfield Memorial Fund	1,062
371	,,	Trail–Crisp Award Fund	336
494	,,	Westwood Fund	613
7,467	,,	*Flora Europaea* Fund	11,851
1,786	,,	Bonhote Fund	2,143
		Treasury 9% Stock 1994	
£9,300.00		*Flora Europaea* Fund	7,398
		Treasury 9% Stock 1994	
£4,165.58		Bonhote Fund	3,063
		6½% Funding Stock 1985/1987	
£19,014.18		*Flora Europaea* Fund	15,000
			62,361
		National Savings Bank—Investment Account	5,967
			£68,328

(Market Value 31 December 1984 £117,398)

Source and Application of Funds Statement for the year ended 31 December 1984

	General Funds	Trust Funds	Total	*1983*
Source of Funds	£	£	£	*£*
Movement on General Fund Account	27,783	—	27,783	*25,229*
Movement on Publications Fund	(469)	—	(469)	*(859)*
Movement on Provision for Repairs and Improvements	44,223	—	44,223	*26,628*
Movement on Trust Funds Income and Expenditure		(4,443)	(4,443)	*12,551*
	71,537	(4,443)	67,094	*63,549*
Application of Funds				
Purchase of Investments	44,372	580	44,952	*21,368*
Net Current Assets Increase (excluding cash: see Note below)	10,468	—	10,468	*27,902*
	54,840	580	55,420	*49,270*
Movement in Net Liquid Funds	16,697	(5,023)	11,674	*14,279*
Deposit and Current Account Balance				
As at 1 January 1984	18,926	29,372	48,298	*34,019*
As at 31 December 1984	35,623	24,349	59,972	*48,298*

Note: Net Current Assets Increase (excluding cash)				
Debtors Increase	17,388	—	17,388	*32,498*
Sundry Creditors and Contributions received in advance	(6,742)	—	(6,742)	*(1,068)*
Stocks Decrease	(178)	—	(178)	*(3,528)*
	10,468	—	10,468	*27,902*

OBITUARIES

Peter David Weiste Barnard (1932–1984)

Peter Barnard was born on 3 June 1932 at Nyaunghla, Upper Burma, where his father, Richard Barnard, was employed by the Burma Oil Company. At the outbreak of the war in Europe, Peter was at boarding school in England, but in July 1940 he rejoined his parents in Burma. The family remained in Burma until the Japanese invasion in 1942, when Peter and his mother were evacuated by the R.A.F. to India. On returning to England after four years in India, Peter attended Caterham School as a weekly boarder. In 1947 he became paralysed in both legs, which, in spite of rumours to the contrary, was almost certainly not due to poliomyelitis but rather to an accident that occurred during gymnastics. Inevitable disruption of Peter's education followed, but through characteristic determination he entered Birkbeck College in 1949 and in 1956 took an honours degree in botany, with zoology and geology as subsidiary subjects.

Having already acquired a special interest in fossil plants as an undergraduate, Peter chose palaeobotany for his postgraduate work and continued at Birkbeck College as a student of K. L. Alvin. His Ph.D. research was carried out on a collection of fossil plants from the Calciferous Sandstone at Oxroad Bay, Scotland, material which Professor W. T. Gordon had been studying at the time of his death a few years previously. Among the plants that Gordon had described was the seed *Salpingostoma dasu*, and it was for Peter to describe the cupule (*Calathospermum fimbriatum*) to which this seed belonged.

Peter's involvement with the Oxroad Bay flora led him to seek information about some of the other localities, then almost forgotten, in southeast Scotland that had yielded Lower Carboniferous plants. From a list of British palaeobotanists he discovered that A. G. Long, who a number of years previously had worked on some Coal Measure petrifactions, was then living at Duns in Berwickshire. Accordingly, Peter wrote to Albert Long: "I have been generally reading through the literature describing Calciferous Sandstone plants. Two localities from which material is recorded are near your address, which I have just come across in the Palaeobotanical Report 1954–6". Collaborative research arose out of this letter, and an interest in fossil plants was reawakened in Albert Long, who went on to make a major contribution to knowledge of Lower Carboniferous plants.

Peter gained his Ph.D. in 1960 and continued in palaeobotanical research, at first on a part-time basis while holding appointments at Croydon Technical College and The County School, East Grinstead, and then as a full-time member of the academic staff of the Botany Department, University of Reading, where he was appointed by the late Professor Tom Harris in 1964.

Peter's whole life, from his childhood, when his early education had been interrupted by events of the war, to his adult and academic life, which was so severely affected by his paralysis and frequent hospitalizations, was a triumph over extreme adversity. He was never content to restrict his activities to those that did not demand physical effort. Peter truly conquered his disability, and we had the privilege of working with him in the field on several occasions. He organized and participated in expeditions to Northern Iran and Trinidad, which resulted in important papers on Jurassic plants from the Shemshak flora

and a major collection of extant pteridophytes from Trinidad. Peter also attended many conferences, including the Carboniferous Stratigraphy meeting in Luxembourg and the International Botanical Congresses at Edinburgh and Leningrad. During 1976 he lectured on the staff of the University of the West Indies, in Trinidad.

Other areas of Peter's academic life were equally fulfilled. He was a very conscientious teacher, giving patiently of his time to students and expending much effort on the development of clear and informative lectures and practicals. He also played a full part in the national and international scientific community, and was active in the Linnean Society for many years until finally constrained by ill health. He became a Fellow of the Society in 1963 and served as Convenor of the Palaeobotany Group and a member of the Programme Committee from 1966 to 1981. During this time he organized several well attended palaeobotanical meetings in the London area. In 1975 he represented the Society in helping to organize a highly successful meeting of European palaeobotanists in Bonn and Wuppertal. With K. L. Alvin and W. G. Chaloner, Peter edited *Studies on Fossil Plants*, a collection on 21 palaeobotanical papers published by the Society in 1968 and presented to the late Professor Tom Harris on his retirement from the chair of Botany at Reading University. Peter also served the Society as a member of the editorial board of the *Botanical Journal* from 1978 to 1983.

Peter Barnard contributed significantly to the development of palaeobotany in the U.K. His publications, in their meticulous care and attention to detail, clearly reflect his resolute thoroughness. Peter's broad botanical interests and his enthusiasm for fossil botany distinguished him as a first-class teacher, and his practical courage in the face of considerable disability inspired students and colleagues alike. The last fourteen years of his life had the sure support of his wife, Margaret (née Hallet), who survives him.

K. L. Alvin
P. R. Crane

Wu Hsien-wen (1900–1985)

Professor Wu Hsien-wen, who died on 3 April 1985, was long associated with the Institute of Hydrobiology, Academia Sinica, in Wuhan, China's leading centre for hydrobiological research and a very important centre for taxonomic and biological research in ichthyology. At the time of this death, Professor Wu was Honorary Director of the Institute, which he first joined in 1950 as Deputy Director, becoming Director in 1977. Before than he held several chairs of Zoology in China, and for a while (1947–8) was also Professor of Parasitology in the Jiangsu Medical College. His early training in zoology was at Xiamen (Amoy) University, from which he graduated in 1927. The degree of Doctor of Science was conferred upon him by the University of Paris in 1932.

Although Professor Wu's researches covered a wide spectrum of zoological subjects, he is best known for his work on fishes, in particular his studies on the taxonomy of Chinese cyprinid fishes. That work alone has given him the well-deserved position of international eminence he occupies in ichthyology. His two-volume monograph on Chinese Cyprinidae (published in 1964 and 1967), and a

later paper (1981) written jointly with three younger colleagues, on the phylogeny of cyprinoid fishes, are essential references for any taxonomist concerned with this particularly complex group of fishes. Professor Wu's many other ichthyological papers, which include several on ichthyo-archaeology, are each important contributions to the development of various aspects of our knowledge on the fishes of China. In that vast field he was truly a pioneer.

Professor Wu was active in other spheres too. He was a co-founder of the Zoological Society of China, the Chinese Society of Oceanology and Limnology and the recently established Chinese Ichthyological Society; the two latter societies electing him as Honorary President. He represented the People's Republic of China at several important congresses within and outside China, and was a member of the Academia Sinica's Division of Biological Sciences. The Linnean Society elected him to Foreign Membership in 1983.

Taxonomic ichthyologists throughout the world are indebted to Professor Wu for the part he played in building up, at the Institute of Hydrobiology, the largest collection of freshwater fishes in Asia. Some 200 000 specimens are preserved there, and the collection is of particular importance for the large number of topotypical specimens it contains.

Professor Wu was an inspiring teacher and leader, much loved and respected by his students, a gentle, cultured person of considerable charm, solicitous and caring for all who came within his orbit. I reckon it a great privilege to have known him, and to have discovered for myself, when he was my host on a visit to China, the many and gracious facets of his personality. China has lost an outstanding ichthyologist and hydrobiologist, but the Institute he helped to create in Wuhan is a fitting memorial to the man and his ideas, and the many students he trained and influenced will play an imporant role in the future of Chinese aquatic science.

P. H. GREENWOOD

A more extensive account of Professor Wu's career is to be published in *Acta Hydrobiologica Sinica*.

LIBRARY

During the summer and autumn of 1985 a major effort was made to complete the cataloguing by duplicating; sorting and filing cards for all the remaining book stock prior to 1979. This means that the main classified catalogue will now have entries for pre-1750 items, books in Linnaeus's own collection and the pre-1800 'pamphlets' or Opuscula bound up into volumes of 'Reprints'. This should make it much quicker for Library staff to answer queries concerning our holdings and to find items requested. We are grateful for the help given by Paul Eames who spent the summer months persuading the duplicator to function and to Lorna Cox and Nicholas Bloom for their help in marking and sorting a seemingly unending mass of cards. Our MSC team, now consisting of Lucy Forsyth, Andrew Gladwell and Jeff Purvis has also been helping with card sorting but have now resumed the labelling operation. Nicholas Coote who joined us in the Spring of 1985 has left to continue his education with a course at Central London Polytechnic.

Donations

We are most grateful for a further gift of books and papers from the Library of the late Dr J. Rzoska F.L.S. We are also grateful to Fellows who have over the years continued to send us copies of reprints of their publications or have presented collections of such reprints, especially Prof. J. L. Cloudsley-Thompson, Prof. G. Pilleri, Prof. G. Montalenti and Dr B. O. C. Gardener.

We are also grateful for the following donations:

H. Burdet	Portes Ouvertes 85, Serie documentaire 16 des Conservatoire et Jardin Botanique, de la ville de Geneve, Geneva, pp. 116. 1985.
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D. G. Cull	Textbooks and other items filling gaps in the Library holdings.
P. H. Davis	Newcastle upon Tyne, Hancock Museum, *An atlas of water beetles of Northumberland and County Durham*, pp. 66. Newcastle upon Tyne, 1985.
R. Fitter	Chapman, G. & Young, B., *Box Hill*, pp. 165. Lyme Regis, 1979. Falla, R. A., Sibson, R. B. & Turbott, E. G., *A field guide to the birds of New Zealand and outlying islands*, pp. 25. London, 1966. Robbins, G. E. S., *Quail, their breeding and management*, pp. 108. Sudbury, 1981.
The author	Galloway, D. J., *Flora of New Zealand lichens*, pp. 622. Wellington, 1985.
Dr R. Gibson	Mather, Patricia & Bennett, Isobel (Eds), *A coral reef handbook*, pp. 144. Brisbane, Australian Coral Reef Society, 1984.
The author	Gunn, Charles R., *Fruits and seeds of genera in the subfamily Mimosoidea (Fabaceae)*, pp. 194. Springfield, United States Dept of Agriculture, 1984.
A. E. Gunther	Simcock, A. V., *Robert Gunther and the Old Ashmolean*, pp. 99. Oxford, 1985.
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Other accessions to the Library over recent months include:

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FORTHCOMING PAPERS IN THE JOURNALS

Biological Journal

LAW, R. and KOPTUR, S., On the evolution of non-specific mutualism.

KONDRASHOV, A. S. and MINA, M. V., Sympatric speciation: when is it possible?

LOMBARD, R. E., MARX, H. and RABB, G. B., Morphometrics of the ectopterygoid in advanced snakes (Colubroidea): a concordance of shape and phylogeny

EASTEAL, S. and FLOYD, R. B., The ecological genetics of introduced populations of the giant toad, *Bufo marinus (Amphibia: Anura):* dispersal and neighbourhood size.

JAENIKE, J., Intraspecific variation for resource use in *Drosphila.*

Botanical Journal

KAY, Q. O. N. and STEVENS, D. P., The frequency, distribution and reproductive biology of dioecious species in the native flora of Britain and Ireland.

WESTFALL, R. H., GLEN, H. F. and PANAGOS, M. D., A new identification aid combining features of a polyclave and an analytical key.

KHANDELWAL, S., The morphological nature of the fertile spike in the Ophioglossaceae.

EDMONDS, J. M., Biosystematics of *Solanum sarrachoides* Sendtner and *S. physalifolium* Rusby (*S. nitidibaccatum* Bitter)

Zoological Journal

FOREY, P. L. and GARDINER, B. G., Observations on *Ctenurella* (Ptyctodontida) and the classification of placoderm fishes.

KIRBY, P. and BECK, R., Muscular connections between the gut and thoracic exoskeleton in some orthopteroid insects.

CHAUDHRY, M. A. and MORGAN, E., Growth and oviposition of the freshwater pulmonate *Bulinus tropicus* (Gastropoda) reared in the laboratory under reversed, extreme and irregular light–dark cycles.

MUSTAQUIM, J., Morphological variation in *Polydora ciliata* complex (Polychaeta: Annelida).