Editorial

The historical article in this issue of The Linnean is a bibliography of William MacLeay whose bust sits in the alcove to the left of the meeting room door. MacLeay, a founder member of the Zoological Society, is best remembered for his Circular or Quinary System. MacLeay first broached his ideas on classification in *Horae Entomologicae* (1819–1821) where he maintained that a series of affinities, naturally arranged, has a constant tendency to describe a circle which eventually returns into itself. However, we have to turn to his *Annulosa of South Africa* (1838: 52) to find the theory most clearly defined:

> "The lowest group in which species combine will be found, provided all the species are known, to return unto itself so as to form as it were a circle and if we could suppose no species to be lost or to remain undiscovered, we should further find five of these lowest groups to form another circle, and five of these last circular groups to form another, and so on until we arrived at that grand circular group which is called the Animal Kingdom."

Although subsequent 19th century authors such as Kirby (1830) and Newman (1832) presumed that Macleay's quinaries were resolvable into septenaries, the circular system held sway throughout the 1840s, at least in the Linnean Society.

The influence of the system appears to have extended into biogeography. Thus, Swainson in 1835 divided the world in five geographical provinces while Wallace (1876) in *The Geographical Distribution of Animals* divided it into six when he adopted what (according to Garry Nelson, 1984), for all intents and purposes, is a quinarian theory.

Figure 1. MacLeay's Quinary System.
The last article in this issue concerns a fake species the perpetration of which took place long before our Piltdown Man episode. The fakes were made from the Brimstone, one of the prettiest butterflies, and often common in most parts of England throughout much of the year. The male is sulphur-yellow and appears very early in the spring.

---

**SOCIETY NEWS**

**Important Notices**

**Room Closure**

The Rooms will be closed over the Public Holidays as follows: 5–9 April, 4–7 May, 25–28 May and 24–27 August 1985.

**Bicentenary Expedition**

Plans are going ahead for the expedition, which we announced in the last issue, and this Notice sets out the decisions which were made up to the time of going to press in January.

The intention is to work jointly with the Royal Geographical Society and in collaboration with Australian scientists, ‘to elucidate the course of the biogeographical and geomorphological evolution of the Kimberley Plateau area of NW Australia over the last 200 million years’. It is perhaps apposite that Port Jackson, the port through which operations will probably need to be mounted, will also be celebrating the bicentenary of its founding in 1788.

The expedition, which has been entitled Kimberley 200, will be led by Professor Andrew S. Goudie, Professor of Geography, Oxford University, and his deputy will be one of our Fellows whose nomination has yet to be confirmed.

Funding has already been allocated for a two-man reconnaissance in March/April 1985 to test initial proposals and confirm feasibility. A go–nogo decision will be made by both Societies’ Councils no later than June. Fund raising will start immediately.

The Linnean Society spokesman on the Kimberley 200 Sub-Committee is Dr David J. Galloway, F.L.S., British Museum (Natural History), Cromwell Road, London SW7 5BD. At this stage he welcomes very early enquiries, information and literature from anyone either interested in or connected with the Kimberley Plateau or its environs, so that the reconnaissance party may have the fullest possible briefing. We also wish to hear of anyone who is willing to help and advise on raising funds.

To reduce paperwork and administration all Society correspondence about the expedition should be headed ‘Kimberley 200’ and addressed to Burlington House. If it concerns the reconnaissance please use First Class post or Air Mail.

**Note on the Area:** The Kimberleys lie in the north of W Australia between ancient sand seas in the south and the humid forested fringe in the north. They contain the spectacular karst of the Fitzroy Basin, the high tidal-range creeks of the coast, relict dune fields, caves, salt lakes, and many other types of habitat. The annual rainfall ranges between c. 500 and 750 mm, with 85% falling between December and March. Frosts may occur from June to August in inland areas. Dampier came ashore at Roebuck Bay in 1688 (a three hundredth anniversary!).
Notes

Society Facilities

This note has been sparked off by the very kind gesture of Mr Peter Wanstall in arranging for the Society to hold a Prior portable monocular microscope on permanent loan from Queen Mary College, University of London. This is now available for use by Fellows and especially for consulting the specimens of mosses in the Collections.

—As any botanist who has visited us to use the herbaria will know, a Wild (Heerbrugg) binocular microscope, bought with a grant from the International Union of Biological Sciences, is permanently mounted in the Executive Secretary’s office.

—The Library now houses the new microfiche reader recently acquired from the International Documentation Centre (IDC) in recognition of their use of our facilities to put both the Linnaean and Smith Herbaria on to microfiches. We also now hold the microfiches of the Society’s Smith Herbaria itself.

Telephones

We are sorry if you missed the note that our telephone numbers were changing on 1 April last year. Sadly, British Telecom in its former, governmental guise would neither advise callers of the change after the first few weeks nor inform them that 734 1040 had been reallocated. The unfortunate private subscriber, not surprisingly, became increasingly put out by the wrong routing over which neither we nor he had any control until we realized and could explain the situation. We hope you were not offended. We now have 0114344479 as the prime number with 014344470 as the back up. There should be automatic switching but if 4479 gives a wrong tone or seems engaged please try 4470.

Forms of Address

We sometimes find it difficult to avoid mistakes with addresses. Titles are asexual and therefore easy, but first names ending with certain vowels are not. In a recent case a first name ending with an ‘a’ led us, according to English usage, to assume a female gender. Please do not take offence but correct us if we have your details wrong. Our records can only be as good as the information we receive. Could we therefore please put in a plea for Fellows signing Forms of Recommendation for prospective members to check that the details given are not ambiguous? Could we also ask if you could complete the forenames when only initials are given and also make sure that degrees and qualifications, if any, are entered (as requested at the top of the form)? We do not wish to appear inquisitive but since our records are as old as the Society we do want to keep them as complete as possible.

Lost Contacts

Can you help with the present addresses of E. D. Brain, S. St C. Carter, J. L. Cooper, D. P. Gibson, F. d’A. Mendonca and J. N. Wilson?

Wanted

A short course in mental telepathy, as we urgently need a member of staff qualified to read the minds of one or two of our correspondents. It is difficult, we
find, to write to the correct place or to say the right thing when we get return slips with nothing completed except the date, and comments such as “I believe you have to know my change of address” . . .

We always try to answer letters as soon as possible so please get in touch if you do not get a response when you expect one; and report if your journals are not getting through.

Greetings

We would like, once again, to thank you for all the Christmas cards and seasonal good wishes, including the unsigned cards from the Academy of Sciences of the USSR and the Oceanographic Institute of Vietnam.

Courtyard Circular

The Secretary of the Royal Academy has asked us to say that the siting of the statue of the Two Running Men (by Elizabeth Frink) in the centre of the courtyard has nothing to do with the Tailpiece in the last issue.

Miscelinaeus mis-spellings

‘Initial planting’ for ‘initial planning’, — a botanical context, of course.
‘Biocentenary Year’.
‘Linnear Habitats’.

Personalities

Our congratulations and thanks are due to Professor G. P. A. Pontecorvo, F.R.S., F.L.S., who was last year made an Honorary Fellow of the Indian Academy of Science, Bangalore. He has most generously deposited in the Library, in perpetuity, the copies of Volumes I to VII of the Icones Roxburghianae which were presented to him by the President of the Academy to mark the occasion.

Botanists will probably know that Dr Charlie Jarvis has been working for the last 3 years at the British Museum (Natural History) on the Linnean Plant Typification Project, funded by a grant from the Science and Engineering Research Council. On termination of the grant last October Dr Jarvis was taken on as a member of staff of the BM(NH). This is most fortunate since not only will he be able to complete the project but we also still have him close by to answer the Linn. Herb. queries which we regularly receive from all over the world.

From the Archives

In the previous editorial we quoted part of Dr Bell’s Presidential address for the year 1858. The Proceedings of the Society (1882) dealing with Darwin’s obituary notes: “The ‘Origin of Species’, when published in the following year, led to a memorable debate.” (In the Office copy these last two words are underlined in ink and entered in the margin opposite — ‘not in the Society’). “Several Fellows withdrew from the Linnean Society because the President refused to take steps to eject the author”. The obituary concludes “The funeral in Westminster Abbey on April 26th was attended by a concourse of mourners, probably unequalled in its kind since Linnaeus was buried in the Cathedral of Upsala in January 1778.”
Vertebrate Structure and History

The retirement tribute to Professor K. A. Kermack—Vertebrate Structure and History, edited by C. Patterson, is available to members who do not take the Zoological Journal and to non-members at £9.00.

Membership

We welcome the following who were elected on:

22 November 1984

Fellows

Dalton de Souza Amorim, B.Sc., Ph.D.
Simmathiri Appanah, B.Sc., Ph.D.
Alan Wesley Armstrong, B.A., M.A.A., LL.B.
John Michael Ashley, B.Sc., B.A., Ph.D.
Professor Dr Peter Ax
Professor S. S. Bir, M.Sc., Ph.D.
David Anthony Verelst Boyle, M.A.
Mary Brenan, B.Sc., Ph.D. (from Associate)
Donald George Broadley, M.Sc., Ph.D.
William Hamilton Brooks, B.S., M.S., Ph.D.
Julian Browse, B.Sc.
Toni Burgin
David G. Castorph, A.Sc., B.Sc. (from Associate)
Lyon J. Cox, B.Sc., Ph.D.
Emil D. Coufalik, M.D., Sc.D., D.C.H.
Arthur John Crooks, B.A.
Ronald Henry Lambert Disney, M.A., Ph.D.
John Duncan Dwyer, A.B., M.S., Ph.D.
Oluranti Emanuel Camnizzaro Ekundayo, B.Sc.
Francis Richard Hall, R.I.B.A.
Professor Leonard A. F. Heath, B.Sc., Ph.D.
Allan Arthur Hiscutt, B.Sc.
Peter John Hudson, B.Sc., D.Phil.
Syed Israr Husain, M.Sc., Ph.D.
Bernard Stanley Jackson, Dip. Hort.
Devasia John, B.Sc., M.Sc., Ph.D.
Lars Olof Anders Jonsson, B.Sc.
Andrew Herbert Knoll, B.A., A.M., Ph.D.
Iain Lancaster, B.Sc., M.Sc.
Patricia Mary Lees
Soren Levtrup, M.S., D.Phil.
Michael J. Novacek, Ph.D.
Denis F. Owen, M.A., Ph.D.
Pankaj Kumar Pal, B.Sc., M.Sc., Ph.D.
Stylianos M. Piperakis, B.Sc., Ph.D.
Dr Line Rossignol-Bancilhon
Frederick James Rumsay, B.Sc.
Keith Gerard Shawe, B.Sc.
Elizabeth Sheffield, B.Sc., Ph.D.
Andrew Morris Sugden, M.Sc., M.A., D.Phil. (from Associate)
Patrick Jurgen Cecil von Aderkas, B.Sc., Ph.D. (from Associate)
Andrew Peter Vovides, B.Sc., M.Sc.
Professor David B. Wake, B.A., M.S., Ph.D.
Charles Watkins, B.Sc., Ph.D.
Professor Mark Herbert Williamson, M.A., D.Phil.
Robin Jeremy Wootton, B.Sc., Ph.D.

Associates

George Davison Fussey, B.Sc.
Frances Gillian Griffiths
Mark Vincent Jones, B.Sc., M.Sc.

14 February 1985

Fellows

Sultanul Abedin, M.Sc., Ph.D.
Margaret Adey, B.Sc., Ph.D.
Claire Elizabeth Appleby, B.Sc., M.Sc. (from Associate)
David Bradwell Arcoll, B.Sc., Ph.D.
Alan John Martin Baker, B.Sc., Ph.D.
June Marie-Therese Barcock
Kare Bremer, B.Sc., Ph.D.
Elisabeth Ann Butler, B.Sc., M.A.
David George Pierpoint Chatfield
Monier M. Abd El-Ghani, B.Sc., M.Sc.
Beverley Farmer, B.Sc.
Michael James Fryer, B.Sc., Ph.D. (from Associate)
Meetings

18 April 1985 at 17.00. Tea will be served at 16.30 and refreshments on conclusion. Posters, and instruments used in the calibration of remotely sensed data will be on display in the Library.

1. Admission of Fellows.
3. Second reading of Certificates of Recommendation for election of Foreign Members.

Dr A. J. Morton (Imperial College, London)—Satellite Imagery and Vegetation Classification

Abstract

Technical aspects of multi-spectral satellite imagery are described and related to reflectance properties of vegetation. The use of satellite imagery for vegetation classification is discussed, with particular reference to spectral and spatial resolution. Some results of a study of moorland vegetation in mid-Wales are presented and the extent to which plant communities can be distinguished is discussed.

Dr E. J. Milton (University of Southampton)—The Importance of Ground Calibration and Airborne Surveys in Remote Sensing of Vegetation
Abstract

If quantitative remote sensing is to provide a meaningful long-term input into regional schemes of vegetation assessment, it is essential that the data are calibrated against reflectance measured on the ground. The inherent spectral variability of natural surfaces is compounded by variations in sun angle and—look-angle, making such calibration difficult. Ground radiometry and airborne surveys each have a role to play in this task, and a methodology for their use is proposed.


This will follow the usual form of an Evening Reception. The President and Mrs Berry will receive Fellows, members, their guests, and the Society's guests at the entrance to the Library. There will be displays and exhibits by both Fellows and invited contributors. At the time of going to press there is still space for further exhibits.

   Dress: Informal but elegant.
   Cost: £4.00 per head.
   Entrance: This will be by ticket only. Applications, from members of the Society only, should be made in writing by not later than Friday 16 April using the enclosed slip.

Afternoon Visit: Mr John Cannon, F.L.S., Keeper of Botany at the British Museum (Natural History), has kindly agreed to entertain a party of up to 20 from 14.30 to 16.30. The programme will include a talk, visits to the herbarium and the botanical library, including the rare books room, and tea. Non-botanists will be especially welcome. Members interested are asked to complete the slip. (Enclosed.)

24 May 1985 at 16.00. Tea will be served at 15.30. Anniversary Meeting.

1. Admission of Fellows.
3. Reading of the Bye-Laws governing the election of new Members of Council and of Officers, and appointment by the President of the Scrutineers of the Ballots for new Members of Council and for the Officers.
5. Presentation of Medals and Awards.
   Linnean Medals to: Professor A. J. Cain and Professor J. B. Harborne.
   The H. H. Bloomer Award to: Mr B. E. Smythies, F.L.S.
   The Bicentenary Medal to: Dr N. Barton.
8. Ballot for Officers.
11. Result of the Ballot for Officers.
General Interest Lecture: *How Linnaeus Learned about Fishes* by Mr A. Wheeler, F.L.S. (British Museum (Natural History)).

Abstract

There is no clear evidence that Linnaeus was ever particularly interested in fishes. However, because of his commitment to catalogue all the known animals and plants in the *Systema Naturae* Linnaeus found himself obliged to enumerate these slimy, cold-blooded creatures.

Inspired by Peter Artedi (1705–1735), a fellow student at Uppsala, and a dedicated ichthyophile, Linnaeus made notes on fishes whenever he encountered them on his travels in Sweden.

The first exotic fishes that Linnaeus saw were in the Museums of the Swedish royal family and the University at Uppsala. Some of these were collected by former students (Linnaeus’s ‘disciples’) who travelled to foreign parts, often at peril of their lives, to collect plants and animals for him. Others were sent by admiring naturalists like Alexander Garden (1730–1791) of Charles Town, South Carolina.

In this way Linnaeus built up his knowledge of fishes without apparently making great effort to do so and between 1735 and 1766 the number of known species grew by 166 from 311 to 477.

4–10 July 1985. *Third International Congress of Systematic and Evolutionary Biology (ICSEB III)*. Programmes with full details of scientific and social events may be obtained by writing to Professor Barry Cox, c/o ICSEB Congress Office, 130 Queen’s Road, Brighton, East Sussex BN1 3WE.

Day tickets for individual symposia will be available at reduced rates for anyone unable to attend the whole Congress.

The Society is offering ‘Open House’ to all delegates passing through or visiting London during the period. Could we suggest that Fellows wishing to make contact with their friends and colleagues from both within the U.K. and overseas use the Rooms as a rendezvous? Anyone wishing to reserve a room for a private meeting is asked to confirm availability in advance. Advance warning of intended use of the Library is, of course, always helpful so that the required books and manuscripts can be brought to hand.


This international symposium is being organized jointly with the British Ecological Society at Southampton University. It has been timed to follow close after ICSEB III for the benefit of delegates from abroad who wish to attend both. A provisional list of speakers and the titles of their papers is below. There will also be an opportunity to display posters.

Booking forms and details of the programme will be available at Burlington House but anyone wishing to book now and/or to present a poster should write direct to the local organizer, Dr P. J. Edwards, Department of Biology, The University, Southampton SO9 5NH.

The overseas speakers have offered to visit other Universities and Institutions to give lectures or to hold seminars whilst they are in the United Kingdom, in return for out-of-pocket expenses. Anyone interested in pursuing these offers is asked to write to the speakers direct.
Introduction

J. Miles (Banchory)—Succession: past and present perceptions.
G. Sugihara (Oak Ridge National Laboratory, P.O. Box X, Oak Ridge, Tennessee 37830, U.S.A.)—Recent theoretical results on food web assembly and ecosystem structure.

Colonizing ability and primary colonization

P. D. Putwain (Liverpool)—Features of colonizing plants.
P. A. Parsons (Department of Genetics and Human Variation, La Trobe University, Bundoora, Victoria, Australia 3083)—Features of colonizing animals: genotypes and phenotypes.
M. Fenner (Southampton)—Seed and seedling characteristics in relation to colonization.
A. M. Mortimer (Liverpool)—Population dynamics of primary successional species.
I. Hanski (Department of Zoology, P. Rautatiekatu 13, SF-00100 Helsinki 10, Finland)—Colonization of ephemeral habitats.
H. L. Carson (Department of Genetics, University of Hawaii, 1960 East-West Road, Honolulu, Hawaii 96822)—Colonization and speciation.
A. H. D. Brown & J. J. Burdon (Division of Plant Industry, C.S.I.R.O., P.O. Box 1600, Canberra City, ACT 2601, Australia)—Mating systems and colonizing success in plants.
M. M. Vitousek (Department of Biological Sciences, Stanford University, Stanford, California 94305, U.S.A.)—Consequences of colonization/succession at the ecosystem level.

Developing habitats

M. B. Usher (York)—Modelling successional processes.
J. H. Lawton (York)—Are there assembly rules for successional communities?
F. A. Bazzaz (Department of Plant Biology, University of Illinois, 289 Morrill Hall, Urbana, Illinois 61801, U.S.A.)—Niche development/diversification.
A. J. Gray (Furzebrook)—Genotype shifts during successional change in plant species.
P. J. Edwards (Southampton)—Role of herbivory in plant succession.
V. K. Brown (Imperial College, London)—Insects and secondary succession: patterns and role.

Towards stability

M. H. Williamson (York)—Are communities ever stable?
S. P. Hubbell (Department of Zoology, University of Iowa, Iowa City, Iowa 52242, U.S.A.)—Equilibrium/tropical forest regeneration.
M. B. Davis (Department of Ecology and Behavioural Biology, University of Minnesota, 318 Church Street S.E., Minneapolis, Minnesota 55455, U.S.A.)—Invasions of temperate forest communities during the Holocene.
J. P. Grime (Sheffield)—Complementary and competitive relationships within plant communities—implications for succession, stability and diversity.
M. J. Crawley (Imperial College London)—What makes a community invasible?

This international symposium, which is being organized by the International Society of Horticultural Science, will be held at the International Agricultural Centre at Wageningen, The Netherlands. The Linnean Society is one of the sponsors. The U.K. convenor is Mr C. D. Brickell, The Director, RHS Gardens, Wisley, and details of the programme may be obtained from the Department of Plant Taxonomy, The Agricultural University, Haagsteeg 3, 6708 PM Wageningen. Tel: 08370-83425.

18–20 October 1985. Regional Meeting. The Field Studies Council have kindly agreed to a weekend symposium entitled *The Natural History and Conservation of the Malham Tarn Area* being run at the Malham Tarn Field Centre. It is being organized on our behalf by the Warden, Mr K. Iball and the Deputy Warden, Mr Edward Jackson.

Situated in the heart of the Yorkshire Dales, the area around Malham Tarn is a Nature Reserve owned by the National Trust and leased to the Field Studies Council. Although it lies at 400 m, there is a remarkable diversity of plant and animal habitats within its boundaries. Three separate grade one SSSI designations underline its outstanding geographical and biological importance.

The symposium will consist of field excursions and lectures on each day, given by guest speakers and FSC staff, reflecting both the intrinsic scientific interest of the area and aspects of its conservation and management.

Accommodation (limited to 25) will be at the Field Centre and the fees for the weekend will be £50 for registration and full board with a £10 addition for those who wish to stay until after breakfast on Monday. The full programme will be given in the next issue but those needing details and wishing to make reservations now should contact The Warden, Malham Tarn Field Centre, Settle, North Yorkshire BD24 9PU. Tel: Airton (07293) 331.

CORRESPONDENCE

**Joseph Barclay Pentland (1797–1873)**

The life and correspondence with William Buckland of the Irish naturalist and palaeontologist Joseph Barclay Pentland were featured in an article in the *British Museum (Natural History) Historical Series* in 1980 (vol. 6, no. 7, pp. 245–319). Pentland’s correspondence with other scientists, including Joseph Dalton Hooker, James D. Forbes and Gideon Mantell, is being transcribed and edited for future publication by its authors, William A. S. Sarjeant and Justin B. Delair. They would welcome any information concerning Pentland and, in particular, would like to locate a portrait of him. Please send any information to Professor W. A. S. Sarjeant, Room 108/2 (Geological Sciences), General Purpose Building, University of Saskatchewan, Saskatoon, Saskatchewan S7N 0W0, Canada.
WILLIAM SHARP MACLEAY, 1792–1865

William MacLeay, the Baillie of Wick, was writing to his son.

"Dear Sandy 29th June 1797

I write immediately on the arrival of your brother William with your two dear boys: the most lovely children ever I saw. James surpasses everything for goodness, and Billy is a very sensible child and can be got to do anything by reasoning with him. He entered the school on Monday last and seems to apply very well. He went to school before breakfast this morning! You know the Schoolhouse is very near, which makes it easier for him to attend. Mr Milne, the teacher is very fond of him as he is so good a boy . . .!

Alexander in his tiny house by Storey Gate in Westminster was thankful for the news; only dire congestion would have made him accept his father’s suggestion that his newly made master mariner brother William should take his two sons James and William to their grandparents, and a loving circle of aunts and uncles, in Caithness. With a calmer mind he settled to his work of Chief Clerk in the Prisoners of War Office, and used what spare time he had, as Secretary of the Linnean Society, in the face of the consternation of Samuel Goodenough and Thomas Marsham at the departure of their co-founder James Smith for Norwich, with a wife and the Linnean Collections; someone had to hold the Society together; it was beyond them.

The devotion of Mr Milne’s thorough grounding in Latin, mathematics and French was equalled only by William’s determination to learn and master a subject, whether it was in his school books or in his rambles seeking for insects for his father’s growing collection. Not a hedge or a ditch, not a tree or a bush was unsearched. The pools in the rocks were alive with crabs and strange sea creatures; more came ashore from craft manned by friendly fisher-folk from distant lands. Sometimes William would join the sons of the Earl of Caithness at Barrogil Castle (now the Castle of Mey) when they were burning kelp; or ride over to Thurso Castle when Sir John Sinclair of Ulbster brought his sons from Edinburgh. They vied with each other to catch salmon from the castle windows, and speculated on whether the Minister’s wife had really seen a mermaid on the rocks below. But James could not come because of a wounded leg which would not heal.

Alexander came home for a brief visit – his first in 16 years during the short-lived Peace of Amiens, to see how his sons were and share in the rejoicings of the Caithness Fencibles who were giving each other congratulations and presents of silver plate, but news from Tobago saddened them, of William the mariner’s death from yellow fever. Kenneth, the eldest brother, and John were also out in the West Indies – for how long?

Four years later, Alexander’s work earned him promotion to the Secretaryship of the Transport Board, and a move to 12 Queen’s Square where there was room for his large family, now numbering ten, brothers Kenneth and John safely back from the West Indies, and a welcome for delightful friends such as William Sharp, his former partner in his wine business. James and William came back to meet unknown brothers and sisters and a world as unlike Caithness as could be imagined. The house was beautiful; from the roof the view across St James's Park to the Queen’s House made the country feel nearer, and the garden door on Birdcage Walk gave onto an outside stair to Alexander’s
study so that great cases of plants and numerous insects could be delivered. The collection was indeed magnificent. William was proud of his contributions. He was surrounded with love and approval, not least his sister Fanny's. She thought him wonderful.

Samuel Goodenough, the new Dean of Rochester, was not quite so admiring. He did not hesitate to suggest, when Alexander asked for advice, that in a great boy of twelve not to have begun Greek or mastered Latin verse-making, was a shocking thing; as for his rustic accents, they could only be described as downright Scotch. Trimming up before young William went to Westminster was going to be necessary; trimming up was what he must have got, for apparently nothing untoward happened during his time there, and he left the school with an enviable reputation as a fine classical scholar to go to Cambridge in 1810.

If his Latin verses had been lacking, Greek opened a new world of wonder to him. He could hardly believe when he came to Aristotle, that the great man had looked at crustaceans and spiders and observed the very relationships he had perceived for himself in the waters of Caithness coasts and its windy headlands. Familiar through his father's correspondence with the work of French savants such as Cuvier and Latreille, William was already aware of their theories of grouping and descriptions, but to find Aristotle had done the same thing thousands of years before, lent vivid life to his own discoveries in the world of natural history and the odd sense of relationship between diverse creatures.

As his new life at Trinity began it was not all learning and philosophy. There were friendships to form. He was writing an epic poem, and convivial parties were held in his rooms, with hot punch (the lemon and sugar carefully noted in his accounts) to repel the cold winds blowing from the Fens.

The Reverend William Kirby, rector of Barham, devoted to all the MacLeays whether in sending whooping-cough remedies, raw country servants or great turkeys for Christmas, wrote inviting William to visit him for botanizing walks and entomological searches. His understanding kindness came at a time when long suffering James died in the Naval Hospital at Hasler, at the very moment when Alexander was taken gravely ill with stoppage and inflammation of the bowel. He hung between life and death for an alarming time. The mere thought of his father's death brought despair to the carefree world of which William had become part. A beloved mother, sisters and brothers, all would depend on him as the man of the family if his father died.

Happily, MacLeay recovered, but the seriousness of this threat was not forgotten. He early took the opportunity to write to Sir Henry Bunbury of the War Department to learn if some diplomatic post might be available for William on his leaving Trinity, where his career was of sufficient distinction to warrant such a request. Lord Castlereagh, who knew Alexander as a country neighbour as well as a hard-working civil servant of matchless honesty, lent his approval to the scheme. He foresaw the need for good young brains in the repair of Napoleon's shattered Europe in the future which lay ahead.

Tilbuster, the MacLeays' house in the country, was snowbound in the bitter winter of 1813–1814. Robert Brown, the great Botanist, came for Christmas to be nursed back to health, from acute rheumatism acquired on his travels to New Holland and Mauritius with Flinders. William, on a brief visit from Cambridge, had looked forward to endless discussions with the reserved Scot, but found to his surprise that Fanny seemed to be the object of his attention and admiration.
Apart from his natural courtesy to all, it was to her he directed his tales of the strange lands he had seen and listened with greater respect than William ever accorded his sister, to her accounts of entomological drawings she had done at William Kirby's request, or the flower pieces she did for her own pleasure. It was very odd. Had Brown not had the reputation of a misogynist? he appeared to William very like a man in love with a girl twenty years younger than himself.

With his Twelfth Night cake uneaten, William was back in Cambridge, the laurels of his finals upon him, before he left for Paris to be an attaché at the British Embassy – as Bonaparte left for Elba. Old friends of his father's by long correspondence and exchanges of specimens, gave him a welcome: De Geer, Lamarck, as well as Cuvier and Latreille aired their opinions which were seldom identical, but the world of Natural History was united in its kindness. Only Redouté showed regret that he was unable to present the young man to the Empress Josephine at Malmaison who had died of a putrid throat, mere days after receiving the Emperor of Russia. She would have been glad to meet a young man whose father had smuggled 'Liliacees' to Sir Joseph Banks, while Napoleon believed implicitly he had achieved Britain's isolation by means of the Berlin Decree.

As William listened to all these learned men he compared what his father's English friends in the Linnean Society had speculated, and added to the rich feast, his own deductions, in the midst of a Paris, raffish in the extreme. Working hard at the Embassy, the Palais Royal with its sleazy attractions knew him not. He made time to send a beautiful doll's house home to Rosa Roberta, the sister born the day before his own birthday in the summer he returned from Caithness.

While Europe was rocked by the shock of the Hundred Days, William's career trembled in the balance, but with the defeated Emperor safe in St Helena the British claims on the French Government remained to occupy his time, though a great work on Natural History was simmering in his mind in spite of the demands of friends from England for his society. There was Edward Deas Thomson, the son of Sir John, Accountant-General of the Navy, and William Dumaresq whose father had done invaluable secret service work from Jersey, for Alexander through the long war. With Edward he watched Dumaresq lower the bronze horses of antiquity from their brief stay on the Arc du Carrousel, under cover of darkness, for fear of the anger of the French mob, and was later to see the diamond-studded snuff box the Austrian Emperor gave him, on their safe return to Venice.

When William returned to London he found the affairs of the nation anything but serene. Peterloo was a bitter episode. The clearances in Scotland were an affront. Retrenchment of whole departments needed for the war had seriously embarrassed men of position who, for the time, had neither income nor pension. Worst of all, the Transport Board was to be wound up.

Unlike most of his compatriots in Paris, William's expenses had been few and he gladly became his father's banker until a new office could be found for him, or his pension paid. It was very pleasant to help a father whom he admired both as a parent and as a naturalist, whose cabinets were filled with the treasures of a great collection – those cabinets made from West Indian woods Kenneth and John had sent from the Caribbean 20 years before.

William Kirby hailed his return from France with delight and enlisted his
support in a Zoological Society which was to be part of the Linnean Society. He was hesitant to agree on all William had to say on the relationship of widely varying species. He was more at home with bees. Nonetheless, *Horae Entomologicae*, published in 1819–1821, was the distillation of all William had thought and perceived since his boyhood, helped by the scientists he had met and his father’s remarkable collection. The scope of his speculations was wide. As he gave reasons for grouping species into a relationship of five he did not lose sight of the origin of creation. With all his enthusiasm for natural history as he had observed it, there was a humility in his perception that everything was not known about creation, however carefully observed. The purposes of God still held secrets to be revealed in His time. As William developed his thesis, it was as
if mental digestion was taking place to arrive at a conclusion before his time. Beside complex diagrams he noted, “One is almost tempted to believe that the science of variations of animal structures may in the end, come within the province of the mathematician.”

Alexander’s pecuniary embarrassment did not lessen in spite of his son’s help. His pension from the Transport Board wasn’t paid, nor was a new post found for him. The Bank in far-away Wick, founded by his brother John, proved less profitable, and when first his father and then John died, and Kenneth too became ill, affairs were parlous, with the result he accepted Lord Bathurst’s offer of the Colonial Secretarieship of New South Wales where Ralph Darling, William Dumaresq’s brother-in-law, was to be Governor. MacLeay hoped for an appointment for William there, but public opinion was changing from the comfortable nepotism of earlier days, and William had to be content with a post in Cuba, to the distress of all who had counted on his level head in the councils of zoology.

To lose two MacLeays at a stroke was bitter to those older members of the Linnean, who remembered Alexander’s devotion in holding the Society together for nearly thirty years. Besides, they would have to pay their own postage without him to frank their letters! As the Colonial Secretary’s party set off for New Holland, Fanny penned a final sleepy letter to her brother, about to leave for Havana as Commissioner of Arbitration to the British and Spanish Court for the Abolition of the Slave trade. A recipe for ginger beer likely to be welcome in the heat of Cuba and careful instructions on giving his servant white cotton for mending his day socks and black silk for the evening ones, did not mask the ache of separation. It was too clear.

Cuba was not entirely a tropical paradise, though travellers’ tales (between hurricanes) painted a beautiful picture of steep cliffs and deep blue waters. The great man of the island was one Drake, a merchant who lived like a prince, with a Spanish wife who played and sang divinely. Their daughter was captivating. When William described her as like Sir Walter Scott’s Di Vernon, Fanny readily saw all was up with him who had never cared for any woman beyond those of his own family. She advised him if anything came of the attraction to beware of trying to move Emilia from her devout Roman Catholicism, knowing William was no friend of Emancipation. In Cuba there was much to disgust among the dissolute priests. The Archbishop, a true Spanish hidalgo, was of a different kind. Both good and saintly, he gave his huge income to the poor and beautified the city. This kindness reached out beyond his own flock and he counselled William after a bad bout of fever, not to be too hard on himself. He gave him real comfort too, when smarting under a vitriolic attack by the Rev. J. Fleming in the Edinburgh Quarterly Review. Far better he said to concentrate on William’s successful work for the slaves than critical pens deriding the Quinary System.

While lying ill in the white villa at Guanabaco William made his will in a fit of despair and the expectation of death, leaving everything to his dear sister Frances Leonora MacLeay under the management of his father, except—“Item: I bequeath all my prints and drawings to Miss Emilia Drake”. Though William did not die, an increasing reserve was found in his manner. When a rather thrusting young Captain James Edward Alexander arrived with letters of introduction he left his secretary to show him the sights. He did indeed give a
ball for him to meet the best society of the island, but he could not really approve of a young man absent from his regiment for purposes of pleasure in travels which would form shallow opinions. He could also have done without the encomiums on his erudition and ability in the travel book published three years later. Perhaps the heat had affected his hitherto sweet temper, certainly an irascibility out of keeping with his former character was noticeable. The course of true love had clearly not run well.

When he returned to London in 1836 he went to stay in Eaton Square with Charles Cockerell the architect – newly a Royal Academician. Together they went to stay in the Grove in Highgate to meet Samuel Mence of his Trinity days, now Master of Sir Roger Chomley’s Grammar School and the new vicar of St Michael’s Highgate; their conversations may have borne fruit in the foundation of the Literary & Scientific Institute two years later. In February 1837 while there, letters reached him from Sydney with the almost unbelievable news of his beloved sister Fanny’s death. He could hardly imagine he would never see her again. Her letters sent faithfully over many years had been a part of his life; the best part, he sometimes thought. In an attempt to hide his grief in private he took a little house, 11 Park Place, overlooking the new Regents Park and was as stoical as he could be in the face of her death.

The world of science was, however, much alive and he was quickly absorbed into it. Dinners at the Athenaeum gave him a chance to resume friendships and make new ones. Dr Book, the new Secretary of the Linnean Society, got together pleasant parties there. One night when Dr Fitton noticed a modest young man near the door called Darwin, as he was about to meet MacLeay and Robert Brown, he bade him join them. To meet someone fresh from Sydney where the Beagle had touched briefly was of great interest. William would have liked news of his father’s enforced retirement by Governor Bourke, in order that his new son-in-law Edward Deas Thomson might have the office. But it was not a suitable subject for the dinner table – and in any case he was to see Lord Glenelg on the matter at the express wish of Ralph Darling who had just been knighted on his retirement. So instead, William gave all his attention to the wonders Charles Darwin had seen, to such an extent that in April Darwin was writing to Leonard Jenyns, a founder member of the Zoological Society:

“Mr MacLeay has taken a great deal of interest in the subject of the publication of the Zoology of the Beagle’s voyages on some uniform plan. He maintains such a publication is very desirable, because it keeps together a series of observations made, respecting animals inhabiting the same part of the world.”

MacLeay had been asked to preside over the section of Zoology and Botany at the British Association’s meeting in Liverpool in September which meant much preparation of specimens and council meetings. His own exhibit was a piece of wood from the new pier at Southampton, already after four years in a state of decay from the ravages of Limnoria terebrans. When the time came Gould had a fascinating collection of drawings of almost mythical birds from the Southern Hemisphere, from Peru and Australia.

Hard upon his return to Park Place, James Robert, his youngest brother, arrived hot-foot from Sydney in pursuit of his love, Amelia Savage. As her father had no objection and she was by way of being an heiress with properties in Mauritius, William found himself arranging the marriage which took place in
November, before the young couple left for Chile, where William had been able to obtain a diplomatic post for him. As the preparations for his own journey to Sydney were made, William had little heart for them. A final letter reached him from his mother before he set sail.

“My dearest William. I hope eer this reaches you you will have had the happiness of seeing your brother James in good health. I received your letter in answer to mine of August 1836. It revived my grief for the loss we have sustained . . . . I often think with you that I did not sufficiently appreciate the blessing bestowed on us in Fanny. May God pardon my selfishness in grieving for her . . . . Poor Brown! Had I thought his love for our dear one had been so great – so enduring – I would have thrown my weight into the scale – but here self interfered. I did not like to part with her and persuaded myself he was cool. Pray remember me in the kindest manner to Brown. Tell him he is near our hearts. Your affectionate mother, Eliza MacLeay.”

William took with him Uncle Kenneth’s sons John and William. His cousins were still in their teens and about to seek their fortunes. Their ship called at Rio and when they touched at the Cape of Good Hope, a courtesy call was paid to old Mr Cloete at Groot Constantia, for he was the grandfather of Lachlan Campbell who had married William’s youngest sister Barbara Isabelle; he gladly gave them cuttings from his famous vines for establishment in New South Wales. After severe storms in which William gravely damaged his shoulder they eventually arrived in Sydney where his parents, much aged, were overjoyed to see him and their beautiful home, Elizabeth Bay House, put him forcibly in mind of the villas in Regents Park. He wondered if Verge their architect had seen Decimus Burton’s plans for the Holme which it much resembled. Although he tried to respond to his welcoming sisters, the gap Fanny had left could not be filled. Susan had married William Dumaresq who had come out in the train of Sir Ralph Darling, his brother-in-law, and Margaret married Archie Innes from Caithness.

Against this enlarged family background, the whole structure of society suddenly collapsed. The wool market tumbled. The cashier of the Bank of Australia abused the trust of years and disappeared with vast sums of money, ruining the shareholders. Formerly secure in his Colonial Secretary’s salary, Alexander had increased his holdings in land, which his younger son George was farming at Brownlow Hill. After his enforced retirement all income had ceased. Suddenly, there simply was no money. It was like 1819 all over again. Perhaps with less than the necessary tact, William pointed out that bankruptcy was imminent if prompt action was not taken. He offered to commute his pension and buy Elizabeth Bay House to save it falling into creditors’ hands, if his Father would sell his other possessions to meet his debts. Rosa Roberta, now Colonel Onslow’s wife, was the only one of the family to applaud the practical good sense of the suggestion which was acted on and Alexander and Eliza went to live with the Dumaresqs at their house called Tivoli.

Alexander’s pension was at last paid and Parliament, indignant over Bourke’s treatment, appointed Alexander MacLeay as their first Speaker. Things weren’t so bad after all, but the glow had gone. However lonely William may have been in a corner of the great house, he did not lack visitors, and certainly not friends – Robert Lowe, one day to be Gladstone’s Chancellor of the Exchequer, and the
other thinking people of the community valued him greatly. He almost recaptured boyhood dreams as the fisherman unloaded great shining catches on the shore below Elizabeth Bay House. One of the first of the travellers who came to see the fine gardens was J. D. Hooker, with happy memories of nectarines in his father’s garden in Glasgow before Alexander’s recommendation took him to the British Museum.

Young Thomas Huxley came from his ship the *Rattlesnake*. A later letter from Thomas gave him as much pleasure as anything for a long time. “Nov 9th 1851.—Believe me, I shall never forget your kindness to me when a little appreciation and encouragement were more grateful to me and of more service than they will ever be again. I have done my best to justify you. I am every day more certain you were on the right track 30 years ago in your views of the order and symmetry to be traced in the Natural Systems.”

When *The Origin of Species* was published, Robert Lowe wrote asking his opinion, and William replied: “Darwin like his predecessor Lamarck is a most able naturalist, although I agree with Sir Roderick Murchison that his facts are not always sound. I think they may be interpreted another way, and he has not stated many things which bear on the subject. I am myself so far a Pantheist that I see God in everything; but then I believe He is the constant and active sole creator of the world.—Nevertheless Darwin is an old friend of mine and I feel grateful for his work and hope it will make people attend to such matters.”

Alone in the January heat, in 1865 William died, his publications now seldom read – and remembered, if at all, for a discarded theory – but his influence on his time was large: Summer’s bust of him suggests a great man. The affection he received was deserved by a good one.

A. Y. SWAINSTON

---

Observations on nomenclature

In the previous issue of *The Linnean, 1 (4): 19* we published a page of Wallace’s notebook on which he proposed the establishment of a Synonomical Catalogue. Wallace imagined that the adoption of such catalogues would soon bring uniformity to nomenclature and provide stable lists of names. However, what he and most other taxonomists had not appreciated was that the system devised by Linnaeus of generic and trivial names often has distinct drawbacks when it comes to the transfer of a trivial name from one genus to another. Thus in his introduction to *Index Animalium* in 1902, Sherborn stated:

“All trivial names are entered as if they were masculine, e.g.

- nigra will be found under niger
- afrum will be found under afer
- abdominalis will be found under abdominalis

It is obvious that no other arrangement is possible if we wish to preserve the history of a species; but cross references are given when the feminine and neuter forms vary so much as to obscure it to those who, like myself, are unfamiliar with the dead languages.”

Before proceeding further it is necessary that we understand the difference between trivial and specific names. Taking *Homo sapiens* L. as our example; *Homo* is the generic name, *sapiens* is the trivial name, and united as *Homo sapiens* is the specific name.
Returning to Linnaeus: in forming the specific name he made the trivial name agree in gender with the generic name. The fallacy of this practice was first pointed out to me as a young student by Tiger (W. H. T.) Tams, who maintained that in placing two names in apposition Linnaeus had obviated the necessity for inflecting the trivial name, which being a name is now a noun, and not an adjective (see also Tams, 1960. AES. Bull., 19: 70). Tams also referred me to Prout’s 1932 paper on ‘Some disputable questions of homonymy’ (V. Int. Congr. Ent.: 903). In this paper Prout maintained that it is not entirely true that our nomenclature is binomial for species and stated that it would be more correct and less dogmatic to suggest that the scientific formula should consist of two names in the case of a species. Prout (ibid.) went on to say:

“To call the second part of a binomial a "name", to allow its transference as such to another genus, and yet to claim that it can stand in any other relation to the generic name than that of apposition, seems to me indefensible grammatically as it is inconvenient nomenclaturally. The struggles over -a, -ur, -um and over the gender of Spilosoma, Selidosm, etc., though only occasionally having a bearing on our present topic of homonymy, have caused many other complications and absolutely wasted a great deal of valuable time”.

The failure of the International Commission to grasp this simple principle is involving taxonomists in ever increasing amounts of wasted time and uncertainty. Given that you have a data base for your own specialist group, try to trace the name of a species which has gone through several genera, from its trivial epithet. This exercise could involve you in testing several possible endings – no mean task if you are not a classicist. In some groups such as Diptera where there has been a singular lack of imagination in the choice of trivial names (many specific names having the same trivial epithet) there may also be uncertainty as to whether or not you have extracted the correct species name. Need I say more?

B. G. Gardiner

Linnaeus’ fabulous butterfly

This brief note outlines what is known about James Petiver’s celebrated fake butterfly, an artistically decorated specimen of the common yellow Brimstone (Gonepteryx rhamni), later named Papilio ecclipsis by Linnaeus in the mistaken belief that it represented a distinct species.

Petiver’s specimen

Petiver (1702) introduced the fake butterfly on plate 10, figure 6, of the first Decad of his Gazophylacii Naturae & Artis. Petiver’s figure is reproduced here as Figure 1; his descriptive legend ran thus:

6. Papilio sulphureus, lunulis caerulis, nigris lituris insignitus. This exactly resembles our English Brimstone Butterfly Mus. Nost. No. 1. were it not for those black Spots, and apparent blue Moons in the lower Wings. This is the only one I have yet seen.

A few lines later, in the legend to figure 9 (another butterfly), Petiver reveals the origin of his curious specimen:

9. Papilio surinamensis ... This very beautiful Butterfly with Fig. 6. my late worthy Friend Mr. William Charlton gave me to Figure a little before his Death.
Petiver gives one more piece of information, in the Index to Gaz. Nat. Art., where he explicitly indicates that the 'Papilio sulphureus' was of European origin.

Petiver's collection was purchased by Sir Hans Sloane, and thus passed to the British Museum in 1753 (Stearn, 1981). Sometime after this (we would surmise in the 1780s), the Petiver specimen was illustrated in colour by William Jones, for inclusion in his famous but unpublished Icones (Poulton, Hobby, Hemming & Edelsten, 1934; Anon., 1977). Note that Jones' annotation to his illustration (reproduced here as Figure 2) clearly indicates that the specimen was in the British Museum. Fabricius (1793), who visited London twice in the 1780, confirms this also. However, less than 100 years later no trace of Petiver's specimen could be found in the British Museum (Butler, 1869, 1881), and it has not been found there subsequently. As will become apparent below, there is a very good reason for this . . .

Linnaeus' description

Linnaeus frequently bestowed names on insects and other organisms by reference to previously published illustrations, without necessarily having seen the specimens himself – and this is undoubtedly the case with Papilio ecclipsis. The name is first introduced by Linnaeus (1763) through the medium of Boas Johansson's dissertation, Centuria Insectorum, as the 67th species of the 100:

67. PAPILIO ecclipsis D[anai]. alis integerrimis angulatis flavis: primoribus punctis duobus maculaque nigris, posticis ocello caeruleo.

Habitat in America Septentrionali. De Geer.

Facies exactissime Papil. Rhamni. Sed uae pri-

more in medio macula oblonga fusca, intra quam 2. puncta

nigra. Posticae puncto nigro & ad marginem exterio-

rem ocellus caeruleus.

Linnaeus (1767), in the 12th Systema, includes ecclipsis as Papilio no. 107, the last member of the Danai candidi, immediately following Papilio rhamni, no. 106. The description is shorter and less precise, and differs in dropping the reference to De Geer. Whether or not Linnaeus had realized an error over this last point is uncertain but, so far as we have been able to ascertain, De Geer never made any reference to Petiver's 'Papilio sulphureus', nor is there any evidence that he ever had a specimen in his collection (as later suggested as a possibility by Hagen, 1881). More important, the continued erroneous provenance of America led to a series of errors, apparently initiated by Pieter Cramer (1777), in attributing
Figure 2. William Jones' illustration (c. 1780), painted from Petiver's ex William Charlton original specimen (then in the British Museum; Jones' Icones are now in the Hope Library, University Museum, Oxford).

the name *ecclipsis* to a large Neotropical sulphur butterfly, *Anteos maerula* (the genus *Gonepteryx* does not occur in the Americas). The details of all this need not concern us here, because both the synonymy and the 'forgery' were soon established in print by Fabricius (1793), following a visit to the British Museum (although Fabricius' insight has not always been recognized, leading to continued doubts and discussion about the true nature of *ecclipsis*, e.g. Hagen, 1881; Butler, 1881).

Fabricius (1793) included *ecclipsis* in *rhamni* as *Papilio* no. 661 (following *philippa* no. 660 and preceding *philea* no. 662), and he was quite clear that not only was it the same as *rhamni*, but also that it was an artifact: "Papilio ecclipsis in Mus. Britannico nobis visus nullo modo distinctus, arte tantum maculatus". Since then, James Edward Smith (1814), John Curtis (in Dance, 1976), Doubleday (1847), Butler (1869, 1881), Kirby (1871) and Dance (1976) have all attested that Linnaeus' *ecclipsis* was based on a fake - a veritable Piltdown Butterfly (Watson & Whalley, 1975).

The Linnean specimens

As already noted, Petiver's original specimen had passed to the British Museum, where it was painted by Jones and also seen by Fabricius. There is now no trace of an *ecclipsis* specimen in the British Museum (Natural History). Butler (1881) had surmised that some *Gonepteryx rhamni* specimens in the Petiver Collection might include the original "washed clean", or that one of the "two cleverly painted specimens in the Linnean cabinet" (Butler, 1869) was probably "Petiver's type". Butler's 1869 paper appears to be the first indication of two *ecclipsis* specimens in the Linnean Collection. Some years before, the celebrated John Curtis apparently found only a single specimen: "This Insect I have seen in Linnaeus's Cabt. & it is a painted spec. of Rhamni." (Dance, 1976). Curtis (1827), in his account of *Gonepteryx rhamni*, makes no mention of *ecclipsis*, unfortunately. The solution to this particular problem probably lies in a
footnote by Doubleday (1847: 71): “P. eclipsis [sic – a frequent misspelling by Linnaeus and others] . . . of which specimens are in the Linnean and Banksian Cabinets, is only Gon. Rhamni artificially spotted, as remarked by Fabricius.”

Sir Joseph Banks died in 1820, but his collection remained in the hands of the Linnean Society until 1863, when it passed to the British Museum. We surmise that before this change of ownership, the second specimen noted by Butler had been transferred from the ‘Banksian Cabinet’ to the Linnean Collection. Curtis, sometime between 1827 and 1862 (the year of his death), had consulted only the ‘Linnean Cabinet’, and thus found just a single specimen.

These two specimens (Figure 3) are still to be found at the Linnean. They are beautifully bright and fresh-looking, despite being ‘English set’, low down on the pin, with the wing-tips drooping down below the point. Of the two, only one bears a label (Fig. 4), and this specimen is transfixed by an ancient-looking, thick, heavy-headed pin. The other, unlabelled specimen, is mounted on a rather similar, but considerably finer pin. Both pins appear to be of 18th century origin (Mikkola, 1983; E. & B. Jarzembowski, 1983).

The label (Figure 4), which belongs to the upper of the two specimens as illustrated by Figure 3, reads “Ecclipsis 765 ex auctor. Mus. Brit. Rhamni arte pictus! Jones”, indicating that William Jones had also realized – perhaps literally in the company of Fabricius, with whom he was well acquainted – that the insect was no more than a skilfully decorated G. rhamni. The number “765” simply refers to the page of the 12th Systema on which ecclipsis was named.

Is this labelled specimen in the Linnean Society the original Charlton/Petiver holotype of Papilio ecclipsis, as suggested by Arthur Butler? Sir James Edward Smith’s (1814) account of Petiver, published in Rees’ ‘Cyclopaedia’, dramatically
Figure 4. Jones' label, which belongs to the upper of the two specimens illustrated by Fig. 3 – did Jones fabricate at least this specimen, using his own faithful illustration (Figure 2) as a guide, following Gray's angry destruction of the BM original?

disposes of this idea, and demonstrates that the remarkable William Jones was indeed the first person to reveal the forgery. Smith, after lamenting the rather poor standards of Petiver's illustrations in the Gaz. Nat. Art., goes on to say that 'The insects are better than the rest, but of these the most famous is an imposture. The Papilio, figured in t. 10 f. 6, which Linnaeus has named Ecclipsis, & described from this figure alone, was found, on inspection of the original specimen by Mr Jones, to be no other than P. rhamni, which, being artificially painted, imposed on our author. The late Dr Grey [sic] indignantly stamped the specimen to pieces."

'The late Dr. Grey' can be none other than Edward Whitaker Gray (1748–1806), who from 1787 was Keeper of Natural Curiosities at the British Museum (Gunther, 1976). According to Stearn (1981) E. W. Gray's museum career was 'undistinguished' – this may be so, but evidently he could not abide unnatural curiosities! So perished the original ecclipsis, literally ground underfoot by Authority.

Smith's invaluable account appears to have gone largely unnoticed, at least with respect to the ecclipsis story, until now. Arthur Butler, one of the most industrious of all British Museum lepidopterists, still thought that one of the Linnean Society specimens might have been the original. Dance (1976: 86) even goes so far as to say that the two specimens were "named by Linnaeus Papilio ecclipsis and placed by him in his collection". Clearly, this must be impossible. But this all raises a new mystery – who did make the (fake) fakes in the Linnean, and who placed them there? Our money would be on that outstanding artist and brilliant lepidopterist, William Jones of Chelsea. After all, he painted the portraits of well over 1000 butterflies, including the original ecclipsis before it was vandalized by Gray – who else would be in a position to apply his brush so well and so knowledgeably?

The authors would welcome readers' comments on this new twist to the story of Linnaeus' fabulous butterfly. We thank Allan Watson, Ed Jarzembsowski and Brian Gardiner for helpful advice and information, and Gary Summons and Cindy North for preparing the illustrations.

References
Stearn, W. T., 1981. The Natural History Museum at South Kensington. London: Heinemann & BMNH.

R. I. VANE-WRIGHT AND P. E. S. WHALLEY

---

**OBITUARIES**

**Elso Sterrenburg Barghoorn (1915–1984)**

Dr Elso Barghoorn, the renowned palaeobotanist and the Fisher Professor of Natural History at Harvard University, died on 27 January 1984, aged 68. Born in New York he received his A.B. from Miami University (Ohio) in 1937 and his Ph.D. from Harvard in 1941. He spent 2 years on the faculty at Amherst before working with the Army in World War II. Soon afterwards he was appointed Curator of the palaeobotanical collections at Harvard and Professor of biology and geology in 1947. He remained at Harvard for the rest of his life, the last 3 years as a half-time professor.
Along with Stanley Tyler (University of Wisconsin), Barghoorn revised the theories of when life originated on earth with the discovery in 1954 of fossilized bacteria in Southern Ontario, two billion years old. During the Apollo Program he served as Principal Investigator for NASA, analysing moon rocks for traces of carbon and other signs of life. He also applied palaeontological research to climatic change in N America as deduced from fossil plant remains.

For his work in palaeobotany, Barghoorn received numerous awards including the Charles Doolittle Walcott Medal of the National Academy of Sciences in 1972. He will also be remembered as an outstanding teacher who shared both his discoveries and the credit for them with his graduate students.

He is survived by a son and a brother. For other obituaries, see *The Boston Globe* (30.1.84) and the *Harvard Gazette* (3.2.84).

**Phyllis Irene Edwards (1916–1984)**

Miss Phyllis Edwards who died on 8 November 1984 served for many years on the Society's Library Committee.

She was born at Teddington and studied at Bedford College, University of London, from which she graduated, with a B.Sc. in Botany and Zoology, in 1940. She first worked in the Ministry of Supply and at the end of World War II moved to the Science Museum. In 1951 she was appointed to the library staff of the British Museum (Natural History) where her main task was the reorganization and restoration of the Department of Botany Library, which had been severely damaged by bombing during the War.

From the early 1960s she was actively concerned in furthering the development of research in the storage and retrieval of biological information. She was a founder member of Aslib Biological Group, the Committee on Biological Information and the Council for Botanical and Horticultural Libraries.

Her last book (*The Journal of Peter Good, Gardener*) was published in 1981.

See also *The Times* (17.11.84).

---

**LIBRARY**

Fellows may not be aware that they have access to the other Learned Society Libraries at Burlington House. The usual arrangement is for the Librarian to check by telephone that the work required is held in one of the other Libraries. For reference purposes a letter of introduction can be supplied. Loans are from other Libraries to the Linnean Society which is then responsible for loans to Fellows of this Society.

The Medical and Natural Sciences Librarian, University College London, Mrs S. Gove, would like to correct the last paragraph of her article on that Library, as published in *The Linnean, I* (3). This should read: 'Fellows of the Linnean Society are able to consult the college collections with a minimum of formality and borrow books *if necessary* subject to the usual library regulations.'
Special thanks must be expressed to Dr Isabella Gordon, F.L.S. for the donation of a large part of her scientific library to the Society. This includes recent numbers of *Crustacea* to add to those given three years ago and some 47 other monographs, mostly on crustacea. We are particularly grateful to Dr Gordon for this collection as her annotations usually include information on dates of publication, reviews and other information which add considerably to the practical usefulness of such works. Whilst regretting that Dr Gordon’s health no longer permits her to make full use of her personal scientific library, we are grateful that she has made it available in this way to all Fellows.

We are also grateful to the following for donations:

- **R. Alkin & F. Bisby**

- **A. Armstrong**


- **The author**

- **The publishers**

- **P. S. Davis**

- **G. Pontecorvo**

- **B. E. Smythies**

- **Smythies, B. E. Flora of Spain and the Balearic Isles. Checklist of vascular plants parts I & II, from Englera, Berlin 3(1) & 3(2), 1984.**

- **The author**

- **The author**

- **T. D. V. Swinscow**


- **D. Taylor-Pescod**

- **K. B. Tainsh**
Other accessions to the Library during recent months include:


FORTHCOMING PAPERS IN THE JOURNALS

Biological Journal

Paulay, G., Adaptive radiation on an isolated oceanic island: the Cryptorrhynchinae (Circulionidae) of Rapa revisited.

Ramos, M. A., Southern peripheral populations of Cepaea nemoralis (L.) (Pulmonata: Helicidae) in Spain.

Holliday, N. J., Maintenance of the phenology of Winter Moth (Lepidoptera: Geometride).

Penny, D., The evolution of meiosis.

Corner, E. J. H., Ficus (Moraceae) and Hymenoptera-Chalcidoidea (figs and their pollinators).


Nielsen, C., Animal phylogeny in the light of the trochaean theory.


**Botanical Journal**

Pentecost, A. and Rose, F., Changes in the cryptogam flora of the wealden sandrocks.
Reynolds, T., The compounds in *Aloë* leaf exudates: a review.
Reynolds, T., Observations on the phytochemistry of the *Aloë* leaf-exudate compounds.
Harvey, W., Notes on the epidermal features of *Degeneria vitiensis* I. W. Bailey & A. C. Smith (Degeneriaceae).

**Zoological Journal**

Millen, S. V. and Gosliner, T. M., Four new species of dorid nudibranchs belonging to the genus *Aldisa* (Mollusca: Opisthobranchia), with a revision of the genus.
Maciolek, N. J., A revision of the genus *Prionospio* Malmgren, with special emphasis on species belonging to the genera *Apiprionospio* Foster and *Paraprionospio* Caullery (Polychaeta, Annelida, Spionidae).
Kohn, A. J., Type specimens and identity of the described species of *Conus*. VII. The species described 1810–1820.
Boon, P. J., Gastric mill structure and its phylogenetic significance in larval Hydropsychidae (Trichoptera).
Kitching, I. J., Early stages and the classification of the milkweed butterflies (Lepidoptera: Danaidae).