The LINNEAN SOCIETY of London

The Linnean

NEWSLETTER AND PROCEEDINGS OF THE LINNEAN SOCIETY OF LONDON

Volume 30 Number 2 October 2014

Giant Eggs:
Aepyornis maximus in Madagascar

Homing In:
AR Wallace homes in Britain

TA Stephenson FLS:
Distinguished individual

AND MORE...

A forum for natural history

The Linnean Society of London

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Publishing in *The Linnean*

The Linnean is published twice a year, in April and October. All contributions are welcome, but please contact the Editor or see the *Guidelines for Contributors* document on our website before writing and submitting articles (www.linnean.org).

Articles should be emailed to the Editor in MS Word format, or sent on disc. Images should be sent as JPEGs or TIFFs at no less than 300dpi. Correct copyright information for images should accompany the article.

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The Linnean

Newsletter and Proceedings of the Linnean Society of London

Contents

Editorial

We've had an overwhelmingly positive response to the refresh of *The Linnean Newsletter and Proceedings*, so thank you for your feedback. Your suggestions and comments are always welcome.

We also welcome your submissions for content, however with only two issues a year, it's important for us to highlight that there is the potential for a delay in publication. Rest assured, we will always do our best to include anything which is of relevance to the Linnean Society, its history, Fellowship and present activities. Our Steering Group has also been very helpful in providing guidance on prospective content. With regard to delivery, we are aware of delays in some of the overseas distribution, and have sought to correct this with our distributor.

As a result of a number of enquiries, Fellows will be happy to note that early issues of *The Linnean* (vols 1–9, 1984–1993) currently missing from our website will be uploaded in due course.

The Society continues to grow, with our Rooms in demand not only for our own activities but those of other organisations as well. We know that it is not always possible to make detailed plans when travelling, but, if you can give us advanced notice of a potential visit to the Society, it will help to avoid any disappointment. We are dedicated to ensuring that you meet the right people and have access to what you want to see.

Gina Douglas, *Editor*
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Society News

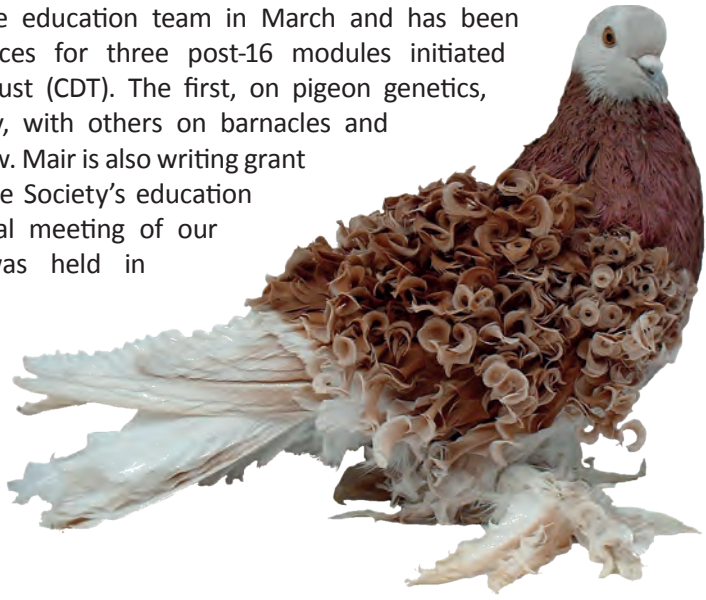
A jar a day: Linnaeus' cure for gout

The Linnean Society's newly-configured Programmes Committee is embracing the innovative ideas of our new Events and Communications Manager, Tom Simpson. The website has been refreshed, with different types of events colour-coded, and Tom has introduced the LinnBlog (see our homepage), showcasing a number of informed commentaries on topics ranging from the early modern elephant to the threat to temperate slipper orchids, as well as strawberries—Linnaeus' cure for gout. The new Lunchtime Lecture series is taking shape, with Vice President Dr Anjali Goswami's erudite talk in July entitled *Price of the Pouch* providing an insight into the evolutionary biology of marsupials (accompanied by skulls on loan from the Grant Museum). An array of topics with a strong natural history component are to follow, including forensic entomology and Blaschka glass models. We also encourage you to suggest speakers/topics yourself—send your suggestions to events@linnean.org.

The Society has upgraded the audio-visual (AV) kit in the Meeting Room, now offering dual projection and enhanced audio and filming capability. This AV work complements the Society's overall IT review, led by Priya Nithianandan, which has resulted in a general upgrade of computers and servers.

Wiley, the Society's publishers, have launched a free app in line with the Society's three research journals. The app allows subscribers to access journal content via mobile Apple devices, and you will have seen in *PuLSe* that the Society's journals will be moving to electronic format only from mid-2015.

Mair Shepherd joined the education team in March and has been generating online resources for three post-16 modules initiated by the Charles Darwin Trust (CDT). The first, on pigeon genetics, was launched in late July, with others on barnacles and carnivorous plants to follow. Mair is also writing grant applications to support the Society's education programme. The inaugural meeting of our Education Committee was held in June, providing guidance for our Education Working Groups; the Committee particularly applauded Hazel's loan box scheme for Key Stage (KS) 1 and 2 students and these will now be adapted for KS3.



Images: Strawberry (Wikimedia Commons—FoeNyx; Frillback pigeon © John Ross (darwinspigeons.com); Sir David Attenborough © The Linnean Society of London


Honorary Member:
Sir David Attenborough

The Anniversary Meeting (see summary from p 48 onwards) saw the presentation of all the Society's medals, as well as recognition of outstanding service to biology of a number of individuals who were designated *honoris causa* or Foreign Member. Special mention goes to Sir David Attenborough who was elevated to Honorary Member, joining our illustrious Royal Fellows. We were also delighted to announce that the CDT has gifted their Darwin and Wallace Collection of books and manuscripts to the Society. Stephen Keynes (CDT Chairman and Darwin's great-grandson) addressed the meeting; it was inspiring to see him standing in front of Darwin's portrait, speaking about the man and his legacy. The CDT collection will be used primarily for education and outreach, though will also be available for research purposes. The Anniversary Meeting saw the election of five new Council members as well as the incoming President-Elect, Professor Paul Brakefield.

The Society continues to advocate and actively promote the science of taxonomy, as exemplified by the Plenary Session in September entitled *Who Needs Taxonomists?* which brought together the industrial and government 'users' of taxonomic data with those generating these data (environmental consultancies, volunteer recorders and taxonomists). You may also have seen the taxonomy articles in *PuLSe*, including one by Dr David Hone who gave a truly inspirational talk as part of the Society's student lecture programme. The value of applying modern molecular biology techniques to natural history collections was well illustrated by the highly successful (and oversubscribed) two-day genomics meeting in April. Other two-day scientific meetings are planned for this autumn, namely *New Perspectives on Climbing Plants* (22–23 Oct) and *Radiation and Extinction* (10–11 Nov), and don't miss the Rachel Carson Memorial Debate on *Land Sparing vs. Land Sharing: Tackling The Greatest Environmental Challenge of the 21st Century* which the Society is hosting in association with the London Evolutionary Research Network (LERN) on 20 November.

The Society is actively aiming to extend the reach of its events, and although videocasts help to achieve this, further regional lectures are planned, following the success of the Plymouth University lecture in March. On the initiative of the Society's President, Professor Dianne Edwards, to honour the memory of the Society's first woman President, Professor Irene Manton, there will be an annual lecture, alternating between Manchester and Leeds, with the first on 28 November. We are also seeking FLS 'ambassadors' in other regions and countries to organise local lectures which the Society will sponsor—plans are advancing at Harvard University in Boston, USA, for example. Please let us know if you are interested in organising a lecture in your area.

Elizabeth Rollinson, *Executive Secretary*
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As mentioned in Society News (pp. 2–3), the Charles Darwin Trust (CDT) has gifted a large collection of Darwin and Wallace material to the Society. The collection consists of more than 200 monographs and some fascinating manuscripts. Links can be made between many of these items and the Society's existing copies of Darwin and Wallace works. All the items are currently being checked against the inventory and sorted ready for cataloguing.

Tom Kennett at the London Metropolitan Archives

Members of staff have been in demand for various talks and presentations. In May, Tom Kennett (our Smith biographer) was invited by London Metropolitan Archives to give a presentation on the Society's founder, Sir James Edward Smith. The talk was excellent, very well-attended and there was a lively question and answer session afterwards. Isabelle Charmantier spoke about Linnaeus' medical manuscripts at a conference entitled *Illustration and identification in the history of herbal medicine* at Kew and Janet Ashdown gave a presentation on book conservation as part of a series of talks on *The future of the book* organised by the Royal College of Physicians.

The Deputy Librarian spent a week on placement at the Berlin Staatsbibliothek as part of her work towards her chartership and in mid-May she and Gina Douglas represented the Society at the European Botanical and Horticultural Libraries Group (EBHL) meeting in Dubrovnik.

Volunteers, Linnaeus Link and Digitising the Maps

The volunteers are also hard at work. Hazel Marsden has been updating some of the listings of correspondence collections following on from John Sellick's work on transcribing the letters and she is now working on manuscript listings. Pia Wilson continues her sterling work on a range of tasks, in particular accessioning new acquisitions and dealing with incoming journals. Alan Brafield has been sorting the recently acquired WT Stearn and Cloudsley-Thompson manuscript material. Sheila Meredith is working steadily through the Linnaean reference collection in the Annexe, enhancing the catalogue records and ensuring that they will be harvested for the Linnaeus Link Union Catalogue.

Linnaeus Link

Preparations are well under way for the 2014 Linnaeus Link Partners' Meeting. It will take place in mid-October in London and will be hosted jointly by the Linnean Society and the Royal Botanic Gardens, Kew.

For those Partners who are able to stay on after the two-day meeting, a tour of the Cambridge University Botanic Garden and the Cory Library has been arranged.

The maps of Nepal are in the process of being digitised and the prints of the Buchanan-Hamilton paintings, which were prepared and framed for the exhibition at the Nepalese Embassy, now hang in the stairwell between the Council Room and the Tower Room.

An Interesting Array of Visitors

The Treasures Tours continue to be very popular and feedback from the participants is being monitored. Recent group visits to the Library and Collections Store have included members of the Maths and Science Group of the Oxford and Cambridge Club, students on the University College London (UCL) Cultural Studies course, a group of Queen Mary College (QMC) and UCL post-grads, Friends of the British Library, Friends of the Museum of London, Cambridge University Library graduate trainees, Camberwell conservation students, a group of marine biologists from Heriot-Watt University and history of science students from Cambridge. There were US summer school visits from Harvard and the University of Maryland.

> "...visitors included a descendant of Linnaeus and the grandson of John Collier (who painted the famous Darwin portrait)..."

Individual visitors included a descendant of Linnaeus, a grandson of John Collier (who painted the Society's portrait of Darwin) and a descendant, and namesake, of one of the Society's Treasurers from the 1870s.

Marimo (moss ball)

The Media, Marimo and Jack the Ripper

The past six months or so has seen a spate of requests by the media for use of the Library Reading Room and the collections. BBC Radio 4 recorded an episode on Linnaeus for the recent series on the history of botany. A Japanese crew making a documentary on Marimo (*Aegagropila linnaei*), also known as 'moss balls' or 'seaweed balls', came in to film in the Collections Store and our Botanical Curator, Dr Mark Spencer, very kindly advised on the content and was interviewed for the piece. The Reading Room has also hosted "talking heads" segments for TV programmes on the discovery of the remains of Richard III and on a new suspect in the continuing hunt for Jack the Ripper.

Lynda Brooks, *Librarian*
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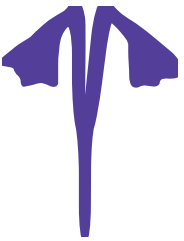
Donations

The following people have made book donations to the Library of the Linnean Society of London. These books will now be in the process of being added to the Society's online catalogue, accompanied by the appropriate donor information.



THANK YOU TO ALL THOSE WHO HAVE DONATED TO THE SOCIETY:

Stuart Baldwin

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Merelene Davis

Martyn Denney

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Professor Dianne Edwards

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Diane Tough

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† Posthumous donation

The full list of donations is also accessible as a PDF with the online version of this issue of *The Linnean* at **www.linnean.org/thelinnean**.

A printed copy of the list can be sent upon request—please contact the Library staff at **library@linnean.org**.

Gender-bending in the Devonian of Rhynie and afterwards

> *It is about time somebody put an end to the neo-classical shandygaff which is passed off as botanical Latin.*
>
> **Editor, New Scientist (1957)**

The English language is somewhat notorious for its irregularities of spelling, pronunciation and emphasis, but at least its learners have little to memorise when it comes to the gender of English nouns; neuter forms outnumber both the masculine and feminine enormously. The use of Linnean binomials (binomens or binary combinations), however, is regulated internationally by codes of nomenclature in which the importance of all three genders still holds sway in the latinised language used. Professor WT Stearn PPLS (1983) explained how all names of genera of plants must follow Latin in being notionally masculine, feminine or neuter; this requirement has been enshrined in the rules of the International Code of Nomenclature for algae, fungi and plants (Melbourne Code; ICN) for more than a century (previously termed the International Code of Botanical Nomenclature). Furthermore, McNeill *et al* (2012) repeat that where the second half or epithet of a botanical binomial is adjectival in form, then its spelling has to agree in gender with that of the preceding genus name (Article 23.5). Moreover, where an author chooses to move a species name from one genus to another and has to make a new combination name, then Article 41 requires that adjectival epithets have to agree grammatically also with the newly chosen genus name. In some instances, such new combinations may need adjustments to the spelling of the epithet where the two generic names concerned are of different genders, if not by that author then by later ones (but with no change in authority; Articles 46–50). Those authors who have had the benefits of a classical education (increasingly rare in the third millennium) should be familiar with these grammatical niceties, but an effect of human error is that some epithets will have been coined that have broken this part of the ICN.

The Linnean Society Palaeobotany Specialist Group meeting at Burlington House on 30 October 2013 was in part held to mark the centenary of the first public report of the discovery of a richly fossiliferous chert at Rhynie near Huntly in Aberdeenshire, Scotland (Mackie 1914). This internationally famous *Lagerstaette* gives us an amazing window onto the microbes, flora and fauna of Lower Devonian age that inhabited this part of the Old Red Sandstone continent around 400 million years ago. (Further

events are planned to take place in Scotland in 2017 to commemorate the centenary of the first published descriptions of the Rhynie flora by Dr Robert Kidston FLS and Professor William Lang PPLS; Kidston & Lang [1917].) Our President, Professor Dianne Edwards, was joined by five other speakers in giving illustrated accounts of the anatomy, life histories, palaeoecology and mode of preservation of many of the plants (including vascular, algal, *sporae dispersae* and *incertae sedis* taxa), fungi and invertebrate animals found silicified at Rhynie. Mention was also made of the Windyhill Chert discovered recently not far from the sediments Mackie found in 1912. I was particularly struck by the progress made in elucidating the alternation between the sexual (gametophytic) and spore-bearing (sporophytic) generations of certain Rhynie plants. It has been possible to link what were certain separately described and named genera into particular integrated life cycles (Taylor *et al* 2005). Likewise, certain *sporae dispersae* have been linked with the contents of sporangia for some of the Rhynie plants. Inevitably, taxonomic revisions have followed on from some of the advances in our knowledge of the Rhynie flora and these have had a few nomenclatural consequences. This is where I noticed the gender bending. Kidston and Lang's original genus *Rhynia* contained two species: the type species *R. gwynne-vaughnii* and the taller *R. major.* When David S Edwards (1986) demonstrated some significant differences between these two species (*eg* only *R. gwynne-vaughnii* has xylem*)*, he chose to split off *R. major* into a newly-named genus *Aglaophyton* under the newly combined binomial *A. major* (K. & L.) D.S. Edwards. In order to comply with Article 41 of the ICN (McNeill *et al* 2012), the corrected name for this species should be *A. majus* (K.& L.) D.S. Edwards, since *Rhynia* is a feminine name but *Aglaophyton* is grammatically neuter. Further, one of the genera of gametophytes from Rhynie was named *Lyonophyton rhyniensis* by Remy and Remy (1980). The generic name *Lyonophyton* is also neuter, so this binomial should be *L. rhyniense* Remy & Remy to abide by Article 23.5. (Note that the authority details do not change where a spelling has to be adjusted.)

Transverse section of *Rhynia* stem—the original genus contained two species

These nomenclatural niceties might reasonably be regarded as nit-picking or trivial, with shouts of 'pedant' in my direction. However, such nomenclatural concerns are

Images: Rhynia (Wikimedia Commons/Plantsurfer); Liriodendron (Wikimedia Commons/KENPEI)

not just limited to certain Rhynie taxa but arise also in other fossil and recent floras. So, for example, in order for the epithets to agree in gender, the Carboniferous *Heterangium kentuckyensis* Pigg *et al* should be *H. kentuckyense* Pigg *et al;* the Jurassic conifer wood *Protocupressinoxylon purbeckensis* Francis should be *P. purbeckense* Francis*;* the Cretaceous monocotyledon stem *Palmoxylon cliffwoodensis* Berry should be *P. cliffwoodense* Berry. Similarly, amongst extant bryophytes, the moss *Ptilium crista-castrensis* (Hedw.) De Not. should be written *P. crista-castrense* (Hedw.) De Not. in order to be neuter in form.

Dr Sandra Knapp FLS commented in a recent BBC Radio 4 broadcast, *The Life Scientific,* that an author had disregarded her gender by having mistakenly named a living plant with the masculine genitive epithet "*knappii",* instead of the feminine genitive "*knappiae".* Professor TM Harris PPLS made the same error in naming the Jurassic plants *Caytonia kendalli* and *Nilssonia kendalli* for his student Miss Mabel Kendall (Harris 1964). To acknowledge her feminine status, these two binomials should be *C. kendalliae* Harris and *N. kendalliae* Harris, respectively.

Some living trees have been more carefully dealt with than others regarding this agreement in gender between epithet and genus. When Buchholz revised the taxonomy of the two recent American redwood species, he chose to recombine *Sequoia gigantea* Lindl. as *Sequoiadendron giganteum* (Lindl.) Buchholz accordingly. For the two living species of tulip tree, *Liriodendron* L., however, it seems to me that something of a nomenclatural muddle exists. In naming the American tulip tree *L. tulipifera*, Linnaeus seems to have followed the traditional mode in treating tree names as feminine even where their spelling suggests another gender, as in *Pinus, Alnus, Populus, Cedrus, Prunus, Fagus, etc.* The binomial for the Chinese tulip tree, *L. chinense* (Hemsl.) Sarg., abides by the ICN (Articles 23.1 and 62.2) in using the neuter form for the epithet to agree with the neuter ending *-dendron* (*cf. Rhododendron ponticum* L., *Lepidodendron aculeatum* Sternberg).

Liriodendron: chinense **or** *chinensis***?**

Surely, there is a contradiction here; a generic name can have just one accepted gender (ICN; *cf.* Articles 62.1 & 62.2). So are we to follow Linnaeus in treating *Liriodendron* as feminine, so that the Chinese species becomes *L. chinensis* (Hemsl.) Sarg. or do we follow the neuter ending pattern and write the American species as *L. tulipiferum* L.? Which is greater—tradition or grammatical agreement?

It would be surprising if comparable nomenclatural inconsistencies could not be found amongst the binomials of certain other plants, animals and microbes, both fossil and recent, governed similarly by their respective codes. Does it remain the duty of authors, referees and editors that they retain a familiarity with the genders of latinised biological names in the 21st century? Should Fellows of the Linnean Society be setting the example here?

Hugh L Pearson FLS
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Acknowledgements
I am grateful to Dr Christine Strullu-Derrien of the Dept of Earth Sciences, the Natural History Museum, London, for her help with details of the discovery of the Rhynie Chert and of the gametophytes fossilised in it. My thanks go also to Professor WG Chaloner PPLS for his critical reading of this article and to our Librarian, Lynda Brooks FLS, for help in accessing the Melbourne Code.

The weekend of 14–15 June 2014 saw the latest of the annual Linnean Society field trips. This year the destination was Dorset in the south of England and the county looked particularly splendid, bathed in early summer sunshine.

The group gathered on Saturday morning on the Isle of Portland, greeted by a fantastic view of Chesil and the Fleet. Some explored the flora and fauna of the raised Pleistocene beaches of the southern tip of the isle, while the rest explored Portland's incredible geology. After visiting the fossil forest at the former quarry (now Nature Reserve) King Barrow, the group moved to the active quarry across the road, in order to witness the mining of the world famous Portland stone.

After lunch we worked our way back to the mainland via the causeway, where fossils were collected from the Kimmeridge clay. Exploration of Chesil Beach itself revealed its post-winter storm morphology and the salt marsh plants that live there, including the delicious and increasingly fashionable marsh samphire.

On Sunday the group moved to the Isle of Purbeck where we had an introduction to The Cyril Diver Project on Studland before a guided walk which included a visit to the ancient Studland Wood and Ballard Down. The geologists amongst the assembled crew explored the cliffs, while the rest slurped their way through Spur Bog for a look at the incredible carnivorous plants that live there.

The Linnean Society would like to thank everyone who took part in the trip and made it such an enjoyable weekend, specifically John Newbould, Robin Walls and Alan Holiday for leading the weekend, and Brian Rosen for his part in organising the event.

Extras

Upcoming Lecture

In the footsteps of Manton: Spores and early land plant evolution

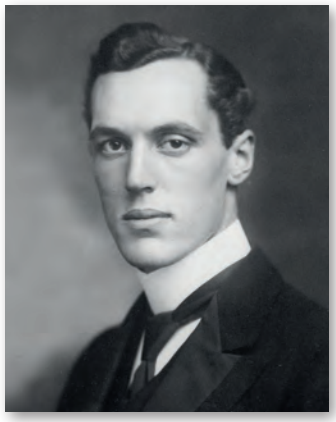
28 Nov 2014, 17.30–18.30
Michael Smith Building, The University of Manchester

Speaker: *Prof Dianne Edwards PLS*

Professor Irene Manton, the first woman President of the Linnean Society, was a superlative scientist who pioneered studies on the ultrastructure of pollen, spores and microalgae. In this inaugural **Irene Manton Lecture** the current President of the Linnean Society, Professor Dianne Edwards CBE FRS, will present 'In the footsteps of Manton: Spores and early land plant evolution'.

From the ultrastructure and external ornament of the spore walls, much can be learned about the affinities of the parents, of hidden diversity in pioneering plants with very simple architecture, of reproductive biology and interactions with animals. In this talk, examples of spores viewed by light, transmission and scanning electron microscopy will be presented to illustrate their pivotal role in elucidating one of the most important events in Earth history—the colonisation of the land by plants. Don't miss this inaugral lecture!

New Medal at the Linnean Society: John Spedan Lewis FLS



John Spedan Lewis FLS, the founder of the John Lewis Partnership, was a skilled business man, but he considered himself first and foremost a naturalist.

The John Spedan Lewis Foundation now supports projects related to Lewis' interest in natural history. To mark its 50th anniversary, the Foundation has commissioned a medal which will be awarded annually at the Linnean Society's Anniversary Meeting to an individual making a significant contribution to conservation in the UK, particularly in ornithology, entomology or horticulture. To nominate for this or other medals, visit **www.linnean.org/medals** and submit your nominations by **30 November 2014**.

Outstanding Annual Contributions

Fellows are reminded that Annual Contributions were due earlier this year on 24 May. Outstanding payments can be made online by logging into the Fellows' Area (www.linnean.org/fellows) or, alternatively, contact Priya Nithianandan (priya@linnean.org or +44 (0) 20 7434 4479 ext. 20).

Darwin in London

Professor Joe Cain FLS

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During research concerning Charles and Emma Darwin's life at number 12 Upper Gower Street, Bloomsbury, London, I identified several errors and vagaries in biographical material found in standard reference works. This note communicates corrections and clarifications.

Commemorative Plaques

Confusion exists regarding the commemorative plaque for Charles on the site. There have been two plaques, and they are different in one key feature (Figs 1 and 2). In 1904, London County Council (LCC) agreed to erect a plaque on 110 Gower Street.[1] This was unveiled on 26 February 1906. It is visible but not legible in Huxley and Kettlewell (1965: 58) and Chancellor (1973: 102–3). It is barely legible in Barlow (1945). The plaque is discussed in detail by LCC (1907 1: 96–99) but it was not saved when the property was demolished following collapse of the building in 1941 and clearing of the site.

Fig 1 Drawing of London County Council commemorative plaque for Charles Darwin on the site of the house he rented at number 12 Upper Gower Street. This was unveiled in February 1906 and placed on the James Shoolbred Company's lodging house at 106–112 Gower Street. Source: LCC (1907).

In July 1959, during construction of the University College London's (UCL) Biological Sciences Building, the university's Secretary proposed a replacement plaque to the LCC. This was approved, and the second plaque was unveiled on 11 January 1961.[2] UCL renamed the building 'Darwin Building' in 1982. The plaque is still visible today.

Should the date on which the Darwins arrived be 1838 or 1839? Neither seems satisfactory knowing what we know today from correspondence between Charles

Fig 2 Second commemorative plaque for Charles Darwin on the site of the house he rented. This plaque was unveiled in January 1961 and placed on the Biological Sciences Building (now UCL Darwin Building) on Gower Street.

and Emma, and related materials. Charles signed the lease, paid a deposit and collected the keys to the property on 29 December 1838.[3] On 31 December 1838, Charles and his assistant, Syms Covington, began moving possessions from his flat at 36 Great Marlborough Street. That night was his first spent in the house.[4] Emma arrived on the couple's wedding day, 29 January 1839, accompanied by Charles. (After the ceremony in Maer, they took a fast coach to Birmingham, then train to Euston Grove Station.) Importantly, none of the important intellectual work Darwin undertook in 1838 occurred in the house on Upper Gower Street. Moreover, Charles created symbolic meaning for 1839 in his first letter to Emma from the house, writing '!!12 Upper Gower Stt!! | Monday January 1st 1839 | And the first of Our Marriage'.[5]

During the approval process for the second commemorative plaque, the Clerk of the Council to the Town Planning Subcommittee (Architectural and Historical Buildings, etc) reported Darwin's residence began on 31 December 1838. However, other reports reviewed by the Clerk suggested (wrongly) that while Darwin had taken possession in December 1838, he only moved into the house on his marriage to Emma later in January.[6] Freeman (1982: 10–11) complained 1838 was an error of judgment, preferring 1839. His argument was that Charles' first full day of residence was 1 January 1839.

Building Photographs

Confusion also exists over photographs of the property. The house occupied by Charles and Emma was built by Alexander Hendy in 1785–87 as a five-floor terraced house, with its own front entrance and back garden.[7] No photographs of that building are known. The first recorded occupant dates from 1791.[8] George Scharf's 1834–35 sketches are the best known depictions of the street.[9] Today, the least modified buildings along the street are 80, 87–89, and 93 Gower Street. The doorframe sketched for Freeman (1982) is a fantasy, modelled after doorframes at 123–129 Gower Street, which came later and do not match any of the surviving intact doorframes closer to the intersection with Torrington Place.

Huxley and Kettlewell (1965: 58) and Chancellor (1973: 102–3) depict buildings that were not the property in which the Darwins lived.[10] The property photographed is on the same site, but it is a substantially modified building. The transformation

Image: Darwin blue plaque image courtesy Joe Cain

occurred after 1881 and incorporated four houses formerly on the original plot, including numbers 106–112 Gower Street. This was undertaken by the Tottenham Court Road furnishings company, James Shoolbred and Co. The property operated as lodgings for male employees in the company. An iron sign above the entrance at 112 Gower Street read 'James Shoolbred & Compy'. The Company eventually took possession of properties 106–118 Gower Street and 98–102 Upper Gower Street, and built significant warehouse and stabling facilities in Gower Mews (National Central Library 1933). Numbers 98–102 operated as lodgings for female employees.[11] Census data shows the radical transformation (Table 1).

Gower Street in the late 19th century is described as 'dull and monotonous' (Walford 1873–78: 567) and 'one of the dullest, gloomiest thoroughfares in town…'(Olsen 1976: 133). Emma Darwin described the garden as 'smoky' (Litchfield 1904 1:445). Shoolbreds left the property on Gower Street at some point after 1911. Muirhead (1927) reports no. 106–112 served as the Indian Students' Union and Hostel, which opened in 1923. Later occupants have not been traced.

The building incorporating number 110 was not destroyed by explosion; rather, it collapsed following fire begun in adjoining properties, notably the National Central Library, now UCL Science Library, overnight 16–17 April 1941 (collapsed Shoolbred building shown in Barlow 1945: 279). Bloomsbury suffered particularly intense air raids that night (Filon 1977; Saunders 2005). Incendiary bombs caused damage to properties across 45 streets near Gower Street. According to London Fire Brigade reports, at 02:32 hours, incendiary bombs caused damage to Malet Place and the National Central Library. Damage and other particulars were reported as: 'A building of 2, 3, and 5 floors and basement, covering an area of 250x120[ft], used as Library, Studios, Offices, and Stores about ¾ [75%] and contents severely damaged by fire and roof off. Rest of building Heat, smoke and water.' At 03:15 hours, further incendiary bombs caused damage north on Gower Street near University Street, including a range of buildings of 2 and 3 floors and basement covering and an area of about 5 acres, adjoining and communicating. These were used as lecture halls, laboratories, library, offices and stores. The South Cloisters area of UCL's Wilkins Building was severely damaged, and the roof collapsed.[12] The site was cleared and remained vacant until construction began on the Biological Sciences Building in 1959.

Baptism records

For the children of Charles and Emma, some baptism information either has been published in error, or it is missing from standard biographical dictionaries. For example, Keynes's (2005a) *Oxford Dictionary of National Biography* (ODNB) entry for their first son begins:

> Darwin, William Erasmus (1839–1914), subject of a study in child psychology, was born on 27 December 1839 at 12 Upper Gower Street, London, and baptized at St Pancras's Church, Bloomsbury.

This baptism information is an error, most likely caused by a conflation of the England and Wales Birth Index (1837–1915) and a registration of baptism. The Birth Index is a registry of birth. It plainly records St Pancras as the Registrar's District on entries for William Erasmus Darwin and Anne Elizabeth Darwin. However, these are civil districts, not church parishes and not records of baptism. Randall Keynes (2005b) ODNB entry for Anne Elizabeth Darwin also has an error in the detail about baptism. She was baptised on 4 June 1841 in St Peter's Parish Church in Maer, not 2 June 1842 (Keynes 2005b). ODNB entries for other Darwin children do not provide baptism information, eg Kushner's (2004) entry for George Howard Darwin.

> "Born sickly at Down House, Mary Eleanor's baptism took place, uncharacteristically, in haste. She was too weak for travel and the risk of death without baptism was a risk the Darwins were unwilling to take."

Baptism registrations for the Darwin children based on church archives are presented in Table 2.[13] The pattern of baptisms suggests a fascinating interpretation. St Peter's Church is 200m from Maer Hall, where Emma was born and lived until marriage. St Peter's is the church where Emma, herself, was baptized.[14] Emma's cousin Reverend John Allen Wedgwood (1796–1882) served as Perpetual Curate (1825–63), and the Wedgewood family used the church for many family services. For instance, on 4 June 1841, not only did Charles and Emma baptize their daughter Anne Elizabeth, but Emma's brother and his wife also baptized their own daughter, Anne Jane Wedgwood.[15] The interval of time between birth and baptism for Charles and Emma's children is notable.

It's difficult to escape the conclusion that Emma wanted her children baptised in the family seat, and while she resided on Upper Gower Street, Emma's notion of 'home' remained focused on Maer. The baptism of Mary Eleanor Darwin at St Mary's Church in Down is an exception to this pattern. Born sickly at Down House, her baptism took place, uncharacteristically, in haste. She was too weak for travel and the risk of death without baptism was a risk the Darwins were unwilling to take. Mary Eleanor died 16 October 1842.

Over time, the link between home and Maer faded for Emma. Down House came to possess that meaning for her after the death of her father (1843) and mother (1846). In 1845, Maer Hall passed into the ownership of William Davenport, pottery manufacturer.

The Darwins did not identify godparents for their children. Most likely, they did not have any. Charles told William Darwin Fox:

> …we have not had Godfathers or Godmothers to our children,—not from any objection to their having such—but as we should in that case have been obliged to have stood proxies & we both disliked the statement of believing anything for another.[16]

The starting point for synoptic accounts of the Darwins in this period remains Browne (1995). Ashton (2012) is excellent for the broader frame of Bloomsbury.

Tables

Table 1: Other known occupants of number 12 Upper Gower Street/number 110 Gower Street. Occupant numbers are derived from decadal census records and include those in service, visitors, etc. Sources: SL=Survey of London (LCC 1949 21: 83); information for 1841, 1951, through 1911 are drawn from England Census records.

Date	Occupants	Head of Household
1801–04		Captain Allen Cooper [SL]
1829–31		Leonard Horner [SL]
1841	2	At the time of the 1841 census, the Darwins were visiting Emma's parents, see census records for Parish of Maer, page 3, Maer Hall. Two female servants are listed as present in 12 Upper Gower Street: Charlotte Lisney (age 20) and Elizabeth Hughes (age 25), see: 1841 England Census, Middlesex, St Pancras, Tottenham, District 11, page 3. House numbers are not provided on the census, but number 12 can be inferred. Chitty lived at number 6, Hare lived at number 13, and Harley lived at number 14 [SL].
1848–59	9 (in 1851)	Christopher Temple, Q.C. [SL]
1861	11	William Tingey (warehouseman)
1871–78	4 (in 1871)	Rev Emeric Podolski (Roman Catholic priest) [SL]
1881	4	Alexander Ferriani (physician)
1891	361	James Shoolbred and Company (1891 census counted in one entry for 106–118 Gower Street inclusive)
1901	318	James Shoolbred and Company (1901 census counted in one entry for 106–118 Gower Street inclusive)
1911	283	James Shoolbred and Company (1911 census counted in one entry for 106–118 Gower Street inclusive)

Table 2: Records of baptisms for children of Charles Robert Darwin and Emma Darwin (née Wedgwood). Abbreviations: SRO: Staffordshire Record Office (Stafford), microfiche F3635/1/4 Maer Baptisms 1813–75; BLSLA: Bromley Local Studies Library and Archives (Bromley), St Mary the Virgin Parish registers Baptism Register 1813–83 P/123/1/10. Thanks to Rita Dockery for assistance.

Name	Date of Birth	Date of Baptism	Clergyman
William Erasmus	27 December 1839 *12 Upper Gower Street, Bloomsbury*	23 June 1840[17] St Peter's Church, Maer	John Allen Wedgwood[18]
Anne Elizabeth	2 March 1841 *12 Upper Gower Street, Bloomsbury*	4 June 1841[19] St Peter's Church, Maer	John Allen Wedgwood
Mary Eleanor	23 September 1842 *Down House*	2 October 1842[20] St Mary the Virgin, Down[21]	John Willott[22] Perpetual Curate
Henrietta Emma	25 September 1843 *Down House*	11 May 1844[23] St Peter's Church, Maer	John Allen Wedgwood
George Howard	9 July 1845 *Down House*	23 October 1845[24] St Peter's Church, Maer	John Allen Wedgwood
Elizabeth	8 July 1847 *Down House*	10 October 1847[25] St Mary the Virgin, Down	John Brodie Innes[26] Perpetual Curate
Francis	16 August 1848 *Down House*	not located[27]	
Leonard	15 January 1850 *Down House*	5 October 1850[28] St Mary the Virgin, Down	Joseph Oldham[29] Curate
Horace	13 May 1851 *Down House*	28 September 1851[30] St Mary the Virgin, Down	Edwin [Day][31] Officiating Minister
Charles Waring	6 December 1856 *Down House*	21 May 1857[32] St Mary the Virgin, Down	John Brodie Innes Perpetual Curate

Notes

1. Number 12 Upper Gower Street was renumbered to 110 Gower Street by London County Council in 1864 during a reordering of the street. A map showing the newly renumbered street is available in UCL Digital Collections as 'Block plan of University College London' 1930s (PID=18845). This is reproduced in Cain (2011).

2. For the 1961 plaque, personal correspondence, Elizabeth Wardle (Blue Plaques Administrator, English Heritage) to Joe Cain, 2 January 2008.

3. Darwin, Charles Robert to Wedgwood, Emma, 29 December 1838. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-463 accessed on Fri 22 Mar 2013.

4. Darwin, Charles Robert to Wedgwood, Emma, 31 December 1838 to 1 January 1839. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-466 accessed on Fri Mar 22 2013.

5. Darwin, Charles Robert to Wedgwood, Emma, 31 December 1838 to 1 January 1839. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-466 accessed on Fri Mar 22 2013.

6. Details on the approval process provided by Elizabeth Wardle.

7. Upper Gower Street was part of an expansion north along Gower Street by the Bedford Estates. Source: Bedford Estates records, file: LE-BC-133. Thanks to Ann Mitchell, Archivist.

8. D. Sun Insurance policy (number 589987) for 12 Upper Gower Street taken out on 12 October 1791 by John Hedderburn. Located in London Metropolitan Archives file: CLC/B/192/F/001/MS11936/381/589987.

9. George Scharf made two sketches of Upper Gower Street. 'Top of Gower Street…' (August 1835) is located in British Museum (registration number 1862,0614.746) and is available online via British Museum Collection Database. 'Drawing by George Scharf of the Hospital soon after its completion' (circa 1834) is located in UCL Special Collections: College Archives Photographs (PID=33447) and is reproduced in Cain (2011) and Harte and North (1991: 55), as well as online via UCL Library Digital Collections.

10. Huxley and Kettlewell (1965: 58) labels the photograph as '12 Upper Gower Street, London: the Darwins' first home' and credits his image to Whiffin Collection, London County Council Photo Library. This is misleading as the building in the frame is the entrance to 112 Gower Street (the Shoolbred sign is missing, suggesting this is after the company left the property after 1911) and the 1906 commemorative plaque is in view. Chancellor (1973: 102–103) credits his image to Hulton Picture Library, dates it to 1909, but wrongly attributes in the picture as 'Maroon Cottage'. The Darwins called their home 'Macaw Cottage' in 1838–39 owing to decoration by a previous tenant: yellow curtains, blue walls, and red sofa.

11. Census records list the Shoolbreds men's lodging as 106–118 Gower Street, sometimes called a 'Drapery Est. Boarding House'. The records also list 98–102 Gower Street as lodging for female employees, none in 1891, 35 females in 1901, and 24 females in 1911. The census lists 104 Gower Street as a private residence.

12. Reports of Air Raid Occurrences by the London Fire Brigade. London Metropolitan Archives file: 'Original Fire Reports', LCC/FB/War/02/044.

13. In 2011, I submitted the Maer information to ODNB, and corrections to their online edition have been made.

14. Emma Wedgwood (born 2 May 1808) was baptized at St Peter's Church, Maer on 22 May 1808.

15. Anne Jane Wedgwood (1841–1877) was the daughter of Henry Allen Wedgwood (1799–1885) and Jessie Wedgwood (1804–1872). Henry Allen was Emma's brother.

16. Charles Robert Darwin to William Darwin Fox, 23 August 1841. Darwin Correspondence Database, http://www.darwinproject.ac.uk/entry-606 accessed on Sat 23 Mar 2013.

17. Staffordshire Record Office (Stafford), microfiche F3635/1/4 Maer Baptisms 1813–75 (here, SRO), page 52. no. 413

18. Rev John Allen Wedgwood (c1796–1882) served as Perpetual Curate at St Peter's Church, Maer, during 1825–63. He stopped performing baptisms at Saint Peter's in July 1849.

19. SRO page 54. no. 425.

20. Local Studies Library and Archives in Bromley Central Library (LSL) St Mary the Virgin Parish registers. Baptism Register 1813–83 P/123/1/10.

21. Here, I prefer 'Down' to 'Downe'. The former is in use until approximately 1870, compare 1867 *Post Office Directory* and 1874 *Kelley's Directory*.

22. Reverend John Willott (c1814–1846) was Principal Curate at St Mary the Virgin, Downe 1841–46, according to *ACAD, A Cambridge Alumni Database, 1200–1900*.

23. SRO page 59. no. 467.

24. SRO page 61. no. 486.

25. LSL St Mary the Virgin Parish registers. Baptism Register 1813–83 P/123/1/10.

26. Reverend John Brodie Innes (1817–94) served as Principal Curate until approximately 1874.

27. Francis Darwin's baptism record has not been located. It is not included in SRO or LSL. His birth is registered in Bromley, the civil registration district for Down. There is no mention in the Darwin Correspondence Database.

28. LSL St Mary the Virgin Parish registers. Baptism Register 1813–83 P/123/1/10.

29. Reverend Joseph Oldham (c1821–96) served as Curate at Down 1848–51, according to *ACAD, A Cambridge Alumni Database, 1200–1900*.

30. LSL St Mary the Virgin Parish registers. Baptism Register 1813–83 P/123/1/10.

31. The spelling is hard to decipher. Day could equally be Way or Dey or Wey. His role appears an anomaly. This name does not recur from 1840 to 1860.

32. LSL St Mary the Virgin Parish registers. Baptism Register 1813–83 P/123/1/10.

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Homing In: Alfred Russel Wallace's Homes in Britain (1852 to 1913)

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Alfred Russel Wallace (1823–1913) lived a life filled with innovative, inspiring and idiosyncratic intellectual endeavour. Having independently co-discovered the theory of natural selection in 1858 with Charles Darwin, he also pioneered the study of animal distribution as the 'father of biogeography' as well as innumerable other achievements within the scientific and socio-political realms.

Despite Wallace's fame, some of the details of his life remain infuriatingly fuzzy. This is particularly the case regarding his homes. Local historians have occasionally studied Wallace's homes in more detail (Chase 1979; Sowan & Byatt 1974; George 2001). However, the most comprehensive research into his residences was undertaken by George Beccaloni (2008). Now, with greater access to Wallace's correspondence, we can piece together a more accurate picture of his residences.

This paper supplements Beccaloni's work, clarifying where Wallace lived from the period of his return from South America in 1852 to his death in 1913, focusing exclusively upon Wallace's British residences.

Much work has already been undertaken to study the influence of Wallace's environment on his thinking prior to his work on natural selection. Yet, no such equivalent has been produced for his later life. To understand the power of place on Wallace's later intellectual development we need to first fix where he was. It is to this important preliminary task this paper turns.

1: LONDON

1.1: Upper Albany Street, Regent's Park—October 1852 to 26 January 1854

Wallace arrived from South America on 1 October 1852. Here he lived with his sister, Fanny Sims (1812–93)—who had recently married the photographer Thomas Sims (1826–1910)—and his mother, Mary Ann Wallace (1788–1868). He took 44 Upper Albany Street but 'while it was getting ready I took lodgings next door' at number 43.

Wallace was familiar with Upper Albany Street prior to his departure for South America in 1848. Before leaving for Pará, Brazil (via Liverpool) with Henry Walter Bates in April 1848, they had lived at 50 Upper Albany Street.[1] The location was perfect. Close to the Zoological Society of London (ZSL) and his agent Samuel Stevens' house, it was an ideal base from which to undertake his natural history work (Wallace 1905:1:313).

1.1a: 43 Upper Albany Street—early October to Christmas 1852

Wallace addresses a letter to *The Zoologist*—recalling his tumultuous return journey from South America to Britain—from number 43 on 19 October 1852.[2] This confirms that he moved here sometime between 1–19 October.

1.1b: 44 Upper Albany Street—Christmas 1852 to 26 January 1854

No correspondence currently clarifies the date he moved into number 44. However, in *My Life* Wallace claims it was at Christmas 1852 (Wallace 1905:1:313). Correspondence does confirm that his longer residence on Upper Albany Street was at number 44.[3] Beccaloni suggests Wallace left this address when he leaves for the Malay Archipelago in March 1854. However, by late January Wallace had already left for Portsmouth, explaining on 8 February 1854 that 'I have left the [HMS] "Frolic" this afternoon after being fourteen days on board'.[4]

1.2: 5 Westbourne Grove Terrace—early April 1862 to March 1865

Wallace arrived back in England in late March (with live Birds of Paradise).[5] Within days he was settled at his brother-in-law's house at 5 Westbourne Grove Terrace and was sorting through his vast collections (Wallace 1905:1:385).[6] Beccaloni suggests Wallace leaves Westbourne Grove in April 1865. However, in February Wallace explained he was 'preparing for moving, as I leave here in March & do not yet know where I am going'.[7] No current correspondence confirms this March date.[8]

1.3: 9 St Mark's Crescent, Regent's Park—March 1865 to 22 March 1870

Wallace rented St Mark's Crescent for five years. However, during the middle year he lived in the house of his father-in-law, William Mitten (1819–1906), to aid writing *The Malay Archipelago* (March 1869) before returning to St Mark's (Wallace 1905:1:414).

1.3a: First Residence: 9 St Mark's Crescent—March 1865 to 6/20 July 1867

Wallace lived here with his mother and was again close to the ZSL library in Hanover Square, where he went 'very often to consult books of reference'. Whilst living here Wallace admitted he saw the 'most of my few scientific friends' (Wallace 1905:1:411).

On 5 April 1866 the 42-year-old Wallace married 20-year-old Annie Mitten (Slotten 2004:522). On 22 June 1867 they also had their first child, Herbert Spencer Wallace.[9]

Wallace explains in *My Life* that they moved to Hurstpierpoint from 'Midsummer 1867' (ie between 21–25 June 1867) during which time he sublet St Mark's (Wallace 1905:1:414). Nonetheless he was still addressing a letter from St Mark's on 6 July.[10] However, Wallace receives a letter at Hurstpierpoint on 20 July, meaning he moved to Hurstpierpoint sometime between 6 and 20 July.

1.3b: Interim Residence: Treeps, Hurstpierpoint, Sussex—6/20 July 1867 to early July 1868

Wallace retained a presence in London during this interim period. Wallace wrote to Darwin in October 1868: 'I am now staying chiefly in the country at Hurstpierpoint but come up to town once a month at least.'[11] His address during these visits was 76½ Westbourne Grove.[12] Nonetheless, Wallace had not entirely moved out of St Mark's. In November he wrote that 'My Collection is still at 9. St. Mark's Crescent, but I stay here when in town and get my letters quicker here in Westbourne Grove'.[13]

1.3b 'Treeps', Hurstpierpoint, Sussex. This was the house of William Mitten, Wallace's father-in-law. Copyright AR Wallace Memorial Fund and George Beccaloni (2011). Reproduced with kind permission.

Wallace addressed a letter to philosopher George Henry Lewes (1817–78) from Hurstpierpoint on 26 May 1868, but a 9 July letter to Lewes was sent from St Mark's.[14] Consequently, Wallace returned to London permanently between 26 May and 9 July 1868. A move in early July is likely because Wallace's 26 May letter states 'I write now because I shall be out of England after the 28th [May] till July'.[15] He most likely moved between his return to England and 9 July.[16]

1.3c: Second Residence: 9 St Mark's Crescent—early July 1868 to 22 March 1870

On 25 January 1869 his daughter, Violet Isabel Wallace, was born.[17] Beccaloni has Wallace at St Mark's until 25 March 1870. However, in mid-March Wallace twice clarifies that he is to move on 22 March 1870.[18]

2: ESSEX

2.1: Holly House, Tanner Street, Barking—22 March 1870 to 25 March 1872

Wallace applied to become the Bethnal Green Museum's inaugural director in 1869. Believing his chances to be good, he moved to Barking (Wallace 1905:1:415–6). However, when the Museum opened in 1872, no director was appointed (Fichman 2004:60). Wallace saw Holly House (which he once mistakenly calls 'Holly Lodge') as 'a kind of halfway house' and described it an 'old cottage' (Wallace 1905:2:90). Wallace's third and final child, William Greenell, was born at Holly House on 30 December 1871.[19]

Here Wallace remained until 25 March 1872, as earlier in March he had stated that 'I am now very busy trying to make my house [The Dell] habitable by Lady Day [25

March] when I must be in it'.[20] Presumably, Wallace's emphasis on 'must' meant his Holly House tenancy ended that day.

2.2: 'The Dell', Grays—25 March 1872 to 25 June/23 July 1876

The Dell was the first and only surviving house built by Wallace himself. It is also one of the earliest existing shuttered concrete houses. Ironically, it is now Grade II listed for its architectural, rather than historical, merit (Beccaloni 2008:7–8). Whilst at The Dell, Wallace's eldest son, Herbert, died on 24 April 1874 at Hurstpierpoint.

Wallace suggests he left The Dell in August 1878 (Wallace 1905:2:258), but the correspondence corroborates Beccaloni's July date showing that Wallace had moved to Dorking by 23 July 1876.[21] We know The Dell went up for auction on 15 June 1876 and that 'possession [by the new owner] will be given on Completion of the Purchase'.[22] We do not know when the purchase was completed. Wallace mentions to Darwin on 23 July that 'I should have replied sooner [to letters Darwin sent on 17 and 25 June]…but *they* reached me in the midst of my packing *previous* to my removal here'.[23] Wallace's reference to both letters arriving *before* he'd moved to Dorking places his Dorking move between 25 June and 23 July 1876.

2.2 'The Dell', Greys, Essex. Wallace built this from shuttered concrete. Reproduced from Alfred Russel Wallace, *My Life*, 2 vols (London: Cassell & Company, 1905), vol 2, p 92 (facing).

3: SURREY

3.1: Rose Hill, Dorking—25 June/23 July 1876 to March 1878

Wallace claimed to leave Dorking after an American Spiritualist medium suggested that the family should go 'to a more bracing place' in order to improve the health

of his ailing son, William (Wallace 1905:2:397). Elsewhere Wallace offers a more mundane reason: it was 'chiefly' to send his children to school (Wallace 1905:2:98).

Both Wallace and Beccaloni suggest the family moved from Dorking in March 1878 (Wallace 1905:2:397; Beccaloni 2008:33). There is limited correspondence for this period to confirm the March moving date.[24] However, we know Wallace was in Croydon by 8 April.[25]

3.2: Croydon—March 1878 to 5 May 1881

Wallace spent three years at Croydon living in two rented houses: Waldron Edge and Pen-y-Bryn. Only Pen-y-Bryn still exists (now 44 St Peter's Road). In Croydon, Wallace worked on his next great biogeographical work: *Island Life* (October 1880).

3.2a: Waldron Edge, Duppas Hill Lane—March 1878 to March/June 1880

Both Beccaloni (2008:34) and Sowan & Byatt (1974:87) suggest Wallace moved from Waldron Edge to Pen-y-Bryn between 9 January and 11 October 1880. Little correspondence exists but we know he moved between March and June 1880 as he addresses a 27 March letter from Waldron Edge and by 24 June he is addressing one from Pen-y-Bryn.[26]

3.2b: Pen-y-Bryn, St Peter's Road—March/June 1880 to 5 May 1881

Wallace spent only a year at Pen-y-Bryn before moving into the second house he built for his family: Nutwood Cottage, Godalming. In April 1881 Wallace explained that 'after May 5th' he would be in Godalming.[27] Wallace confirms this in a short note post-marked 5 May explaining 'we are just in & are in great confusion'.[28]

3.3: Godalming—5 May 1881 to 24 June 1889

Wallace's residence at Godalming is more complex than originally thought. He had two residences in the town: Nutwood Cottage and a temporary rented house he took on letting Nutwood—not sold until late-1901 (Wallace 1905:2:227)—but before moving to Dorset.

3.3a: Nutwood Cottage, Frith Hill—5 May 1881 to 16 March 1889

The Godalming period was comfortable for Wallace. Financially, from January 1881 the Civil List pension offered him some respite from money concerns and socially he appeared content, surrounded by masters at Charterhouse school of whom many Wallace befriended. He also developed his garden and greenhouse and 'cultivated at one time or another more than a thousand species of plants' (Wallace 1905:2:103).

3.3a 'Nutwood Cottage', Godalming, Surrey. Reproduced from Alfred Russel Wallace, *My Life*, 2 vols (London: Cassell & Company, 1905), vol 2, p 103 (facing).

Wallace's writing—which developed a significant socio-political bent[29]—kept him increasingly busy. His time

at Godalming neatly bookends his early involvement in the newly-formed Land Nationalisation Society (March 1881) and his final conversion to socialism.[30] At Godalming he wrote *Land Nationalisation* (May 1882), *Bad Times* (November 1885) and his popular *Darwinism* (May 1889) which developed alongside the American Lecture tour he undertook between October 1886 and August 1887.

3.3b: Temporary House—16 March 1889 to 24 June 1889

Wallace vacated Nutwood a few months before moving to Dorset. *My Life* suggests he let Nutwood from Lady Day (25 March) 1889 (Wallace 1905:2:203). However, on 22 February he noted that he was letting his house from 16 March.[31] Furthermore, on 7 April 1889 Wallace explains they were 'in a temporary house till we fix on a permanent one'.[32] All his correspondence between April and 24 June 1889 is addressed simply 'Godalming' rather than his usual 'Frith Hill, Godalming'.

The search for a new home was a long-protracted process. However, on 14 May they had—'after thoroughly exploring Ryde, Ventnor, and Parkstone'—taken a house in Parkstone and were moving in from Midsummer.[33] They couldn't move in straight away, however. Wallace explains to William on 9 June that:

> Last Tuesday I went to Parkstone to meet the landlord & see the alterations in the house. He is doing it very nicely & I think it will be a very snug little place with enough garden for us & very pretty country near. It is not only a tiled roof but it is one of the prettiest & best built little houses I ever saw. I do not think there is one in Godalming so pretty.[34]

By 17 June Wallace was giving his address 'after June 24th' as Corfe View.[35] By 24 June the family had vacated the house, but Wallace remained until 26 June to arrange moving his plants.[36]

4: DORSET

4.1: 'Corfe View', Parkstone, Dorset—24 June 1889 to 18/20 September 1902

> It is small, very pretty, and uncommon house, with lovely views, very sheltered, backed up by a hill & fine wood, with beautiful country all round, a small but pretty garden that we can manage ourselves—flowers only—orchises growing on the lawn, and not a hundred yards from Parkstone station whence Bournemouth is reached in 5 minutes… I think Ma is quite pleased with it though there are no cupboards, & a bedroom where the cellars usually are, but that makes it all the more uncommon.[37]

4.1 'Corfe View', Parkstone, Dorset. Painted by Annie Wallace. Copyright AR Wallace Memorial Fund and George Beccaloni (2010). Reproduced with kind permission.

Wallace originally rented Corfe View before purchasing it in 1890, adding a new kitchen, bedroom and enlarged drawing room. Wallace believed—again—he was 'settled for life at Parkstone' and began to attempt to grow orchids: a passion harboured since childhood.

> "...Ma is quite pleased with it though there are no cupboards, & a bedroom where the cellars usually are, but that makes it all the more uncommon."

Wallace remained busy, appearing as a witness for the Royal Commission on Vaccination in 1890 and publishing *Vaccination a Delusion* (February 1898) and *The Wonderful Century* (June 1898).

From mid-1900 Wallace was again house-hunting in places like Sussex. As he explained to Raphael Meldola: 'we think of leaving here as we are getting entirely built round, & the place does not agree with any of us.'[38] However, it was not until two years later that he'd agreed to 'be out of here [Corfe View] by Sept[ember]. 20th. to let the paperers & painters put the house in order, have a new kitchen put in etc'.[39] By 2 September he was informing people they would be 'moving about the 18th'.[40] Certainly, by 22 September he was in 'diggings' in Broadstone.[41]

4.2: Broadstone—18/20 September 1902 to 7 November 1913

Wallace was 79 years old when he moved to Broadstone. Despite his age, Wallace threw himself into the building work. Wallace anticipated Old Orchard cost him nearly £1,500 and left him in debt to about £100 but added that it would be 'well worth it'.[42]

4.2a: 57 York Road—18/20 September 1902 to mid-November 1902

Wallace explains on 13 September 1902 that he would be 'at "diggings" on the way to the "Old Orchard"' by 22 September. These diggings were Jane Clark's house who was the 'mother of our engineer', Charles Gilbert Clark.[43]

4.2b: 'Old Orchard'—mid-November 1902 to 7 November 1913

Wallace's *My Life* suggests they were in Old Orchard by Christmas 1902. However, his children recollected that 'We moved into the new house at Broadstone at the end of November, 1902, before it was quite finished' (Marchant 1916:2:120). His children appear to be correct; although not occupying the whole house, the Wallaces were already living in Old Orchard from November. Indeed, Wallace wrote on 26 October about moving in during November.[44] On 15 November—having hot water and lavatories—he declared the study 'habitable'. However, he appears to be still in their 'diggings' as his letter opens with 'having got home early this evening' and is addressed from 'Broadstone, Wimborne'—his convention whilst in his 'diggings'.[45] Once settled in Old Orchard he addressed letters from 'Broadstone, Dorset'.[46] Wallace confirms that they had moved into the house—or rather a small part of it—soon after

4.2b 'Old Orchard', Broadstone, Dorset. Wallace built this house and lived in it from 1902 until his death in 1913. He is buried nearby. Copyright A. R. Wallace Memorial Fund and George Beccaloni (2010). Reproduced with kind permission.

the study had become 'habitable' in mid-November explaining on 19 December that: 'The Study wh[ich]. we have now lived in for a month, is a very comfortable looking room.'[47]

Wallace continued producing prodigious amounts of work. He completed *Man's Place in the Universe* (October 1903), *My Life* (October 1905), *Is Mars Habitable?* (December 1907), *The World of Life* (December 1910), *Social Environment and Moral Progress* (March 1913) and, finally, *The Revolt of Democracy* (October 1913).

Wallace died aged 90 at Old Orchard on 7 November 1913 and was buried in Broadstone cemetery on 10 November 1913. Thus ended one of the most interesting, innovative and—as this study has helped to show—itinerant lives of the 19th and early-20th centuries.

CONCLUSION

Clearly gaps still exist and it is unlikely we will ever be able to fully confim Wallace's residences as we can with Darwin (especially regarding the early and middle periods of his life). However, as Wallace's body of correspondence continues to be collected and catalogued, we will learn more about his homes. Hopefully this will help to provide a better understanding of the role of Wallace's diverse residences and environments on his later and equally fascinating intellectual evolution.

Main Archives

All letters include a 'WCP' number. This can be easily searched for on the Wallace Letters Online page (http://www.nhm.ac.uk/research-curation/scientific-resources/collections/library-collections/wallace-letters-online/index.html).

BL: British Library (Wallace Papers)

CUL: Cambridge University Library (Darwin, Newton, and Croll Papers)

NHM: Natural History Museum (Wallace Collection)

OUMNH: Hope Entomological Library, Oxford University Museum of Natural History

RBG: Royal Botanic Gardens, Kew (DC English Letters)

RGS: Royal Geographical Society (Correspondence Block (CB4))

ZSL: Zoological Society of London (Letters to the Secretary)

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Notes

1. ARW and HW Bates to WJ Hooker, 30 March 1848. RBG (1848, vol.26.) [WCP3802].
2. *The Zoologist*, vol 10, no 119 (November 1852), 3641–3643.
3. For example, ARW to H Norton Shaw, 19 November 1853. RGS [WCP3560].
4. ARW to WA Bailie-Hamilton, 8 February 1854. RGS [WCP4306]. A copy of this letter was included with the letter sent by Wallace to Norton Shaw on 8 February 1854.
5. Wallace informed Sclater of the 'prosperous termination of my journey & the safe arrival in England' in this letter addressed from the Pavilion Hotel, Folkestone: ARW to PL Sclater, 31 March 1862. ZSL [WCP1723].
6. ARW to Sclater, 4 April 1862. ZSL. [WCP1724]; to Sclater, 7 April 1862. ZSL. [WCP1719]; to Darwin, 7 April 1862. CUL (MSS.DAR.106:B1) [WCP1847].
7. ARW to Alfred Newton, 19 February 1865. CUL (Add.9839/1W/70) [WCP4006].
8. WCP suggest (on 18 April 2014) a letter from Wallace to Charles Lyell, addressed as 9 St Mark's Crescent, was sent on 19 March 1865 (WCP4871). However, the year is not

included on the original and reference to Andrew Murray's *Geographical Distribution of Mammals* (1866) suggests a later year (most likely 1867 as Lyell and Wallace were then corresponding on the distribution of mammals).

9. The Wallace family prayerbook—still held by the family—reads: 'Herbert S[pencer] Wallace | Born June 22nd. 1867.'

10. ARW to Lyell, 6 July 1867. Darwin-Lyell Collection, American Philosophical Society, Philadelphia [WCP4873].

11. ARW to Darwin, 1 October 1867. CUL (MSS.DAR.106:B43–44) [WCP1882].

12. ARW to Darwin, 22 October 1867. CUL (MSS.DAR.106:B46–47) [WCP1884].

13. ARW to Newton, 22 November 1867. CUL (Add.9839/1/W/85) [WCP4021].

14. ARW to GH Lewes, 9 July 1868. BL (Add.46439,ff45–46) [WCP3003].

15. ARW to Lewes, 26 May 1868. BL (Add.46439,f.44) [WCP3002].

16. WCP suggests (on 18 April 2014) Wallace received a letter at Hurstpierpoint on 2 June 1868. However, the letter contains no evidence that it was addressed to Wallace at Hurstpierpoint: SEB Bouverie-Pusey to ARW, 2 June 1868. BL (Add.46441,ff19–20) [WCP3083].

17. The family prayerbook reads: 'Violet Isabel Wallace | Born Jan[uar]^{y}. 25th. 1869.'

18. ARW to HT Stainton, 13 March 1870. NHM (Catkey-418320) [WCP669] and to James Croll, 14 March 1870. BL (Add.41077,ff46–47) [WCP3353].

19. The family prayerbook reads: 'William Greenell Wallace | Born Dec[embe]^{r}. 30th. 1871.'

20. ARW to Darwin, 3 March 1872. BL (Add.46434,f.236) [WCP1951].

21. ARW to Darwin, 23 July 1876. BL (Add.46434,ff271–272) [WCP1970]; to Newton, 23 July 1876. CUL (Add.9839/1W/117) [WCP4054].

22. 'The Particulars and Conditions of Sale of the Detached Residence Known as "The Dell," Grays, Essex' (London, 1876). Local Studies, f.205. Grays Library, Thurrock Public Libraries.

23. Darwin to ARW, 25 June 1876. BL (Add.46434,ff268–270) [WCP1969]; Darwin to ARW, 17 June 1876. BL (Add.46434,ff264–7) [WCP1968]; ARW to Darwin, 23 July 1876. BL (Add.46434,ff271–272) [WCP1970].

24. WCP suggests that a 19 March letter was sent to Wallace at Waldron Edge by FJ Bell suggesting Wallace was already living there. However, the letter contains no evidence confirming it was addressed to Waldron Edge: Bell to ARW, 19 March 1878. BL (Add.46435,ff383–384) [WCP2357].

25. ARW to Assistant Secretary of the BAAS, 8 April 1878. George Griffiths Letters Collection, Greater Manchester County Record Office [WCP1758]. Additionally Wallace's preface to *Tropical Nature* (London: Macmillan & Co, 1878) reads 'Croydon, April 1878'.

26. ARW to Robert McLachlan, 24 June 1880. OUMNH (ARW227) [WCP4576]. WCP suggest Wallace received a letter from Arthur Hobhouse at Pen-y-Bryn on 8 May 1880. However, the letter does not provide any evidence to support that: Hobhouse to ARW, 8 May 1880. BL (Add.46441,ff54–55) [WCP3107].

27. ARW to CM Ingleby, 17 April 1881. C.a.26(37). Folger Shakespeare Library [WCP4346].

28. ARW to Raphael Meldola, 5 May 1881. OUMNH (ARW263) [WCP4605].

29. In a letter to FWH Myers, Wallace notes 'I am now devoting my attention more especially to politics—the Land Question especially': ARW to Myers, 30 January 1881. NHM (WP2/6/3/3/2) [WCP1567].

30. The earliest reference to Wallace's Socialist conversion is a letter to Grant Allen. In this, Wallace notes his move from Godalming adding: 'I have just read "Looking Backward" and it has convinced me of the practicability and desirability of Socialism. It is a work of true genius.' See: ARW to Allen, 22 July 1889. Robert M. Stecher Collection (Correspondence—1850–1900), Cleveland Health Sciences Library, Case Western Reserve University [WCP4652].

31. ARW to EB Poulton, 22 February 1889. OUMNH (ARW17) [WCP4364].

32. ARW to ED Girdlestone, 7 April 1889. Private Collection [WCP3607].

33. ARW to Violet Wallace [VIW], 16 May 1889. NHM (WP1/2/1) [WCP202].

34. ARW to William Greenell Wallace [WGW], 9 June 1889. NHM (WP1/1/1) [WCP1].

35. ARW to George Nicholson, 17 June 1889. RBG (1857–1900, vol.104) [WCP3826].

36. ARW to VIW, 30 June 1889. NHM (WP1/2/2) [WCP203].

37. ARW to VIW, 16 May 1889. NHM (WP1/2/1) [WCP202].

38. ARW to Meldola, 15 July 1900. OUMNH (ARW196) [WCP4544].

39. ARW to WGW, 23 August 1902. NHM (WP1/1/61) [WCP61].

40. ARW to CEC Wilson, 2 September 1902. Private Collection (JG Wilson) [WCP4800].

41. ARW to WGW, 13 September 1902. NHM (WP1/1/63) [WCP63].

42. ARW to WGW, 15 November 1902. NHM (WP1/1/66) [WCP66].

43. ARW to WGW, 13 September 1902. NHM (WP1/1/63) [WCP63]. Other details from 1891 and 1901 Censuses.

44. ARW to WGW, 26 October 1902. NHM (WP1/1/64) [WCP64].

45. ARW to WGW, 15 November 1902. NHM (WP1/1/66) [WCP66].

46. The earliest use of 'Broadstone, Dorset' currently available is ARWs letter to WGW, 30 November 1902. NHM (WP1/1/67). Consequently we can be fairly confident he was in Old Orchard by the end of November.

47. ARW to WGW, 19 December 1902. NHM (WP1/1/68) [WCP68].

Giant eggs—a weak link? Or 'Life at the eggstreme'

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It has long been known that a giant bird once lived in Madagascar. Early travellers were shown bits of its huge eggs and these gave rise to the legend of the 'Roc', an enormous bird big enough to carry off a man in its talons. In fact, the elephant bird *(Aepyornis maximus)* was a flightless, thickset relative of the ostrich. Its ancestors arrived there about 85 million years ago, but it became extinct before the ancient mariners arrived and so none of them ever saw one alive.

Weighing nearly 500kg, *Aepyornis* is the largest known bird, and it also laid the largest known eggs. These were the size of a household bucket, 25 times bigger than an ostrich egg and equivalent to 160 hen's eggs (Fig 1). It is said that an *Aepyornis* egg would make an omelette the size of a dustbin lid, and that may have been related to the bird's demise. The eggs must have been easy for the first human colonisers to find and collect, and much easier than trying to kill the parent birds although these would have been unaccustomed to exploitation as Madagascar lacks large predators. Predation by humans could account for the vast quantities of eggshell fragments that can still be found in sandy deposits on the island.

It was one of these giant eggs, reconstructed from fragments, that aroused my interest in the elephant bird. For many years it was in the crowded showroom of Edward Gerrard & Sons, a famous London taxidermy company. The egg is clearly visible in old press photographs of the showroom in the days before the firm was wound up in the 1950s. It seems likely that they bought it at one of the many auctions of such items held in pre-war London, although the date is uncertain. A marked-up auction catalogue shows that one such egg, 'the largest ever', was sold to 'Gerrard' at Stevens Auction Rooms on 5 June 1902 for £39 18/-, a very high price for that date and compared to others sold later. This egg may be that one or a later specimen.

Whole eggs have been discovered occasionally in Madagascan sand dunes, suggesting that the elephant birds might once have nested in this type of habitat. However, dunes are very mobile and could have been formed by wind blown sand that engulfed the eggs and fragments that had originally been laid in different surroundings. It's curious that so many shell fragments remained long enough to become buried as their calcium

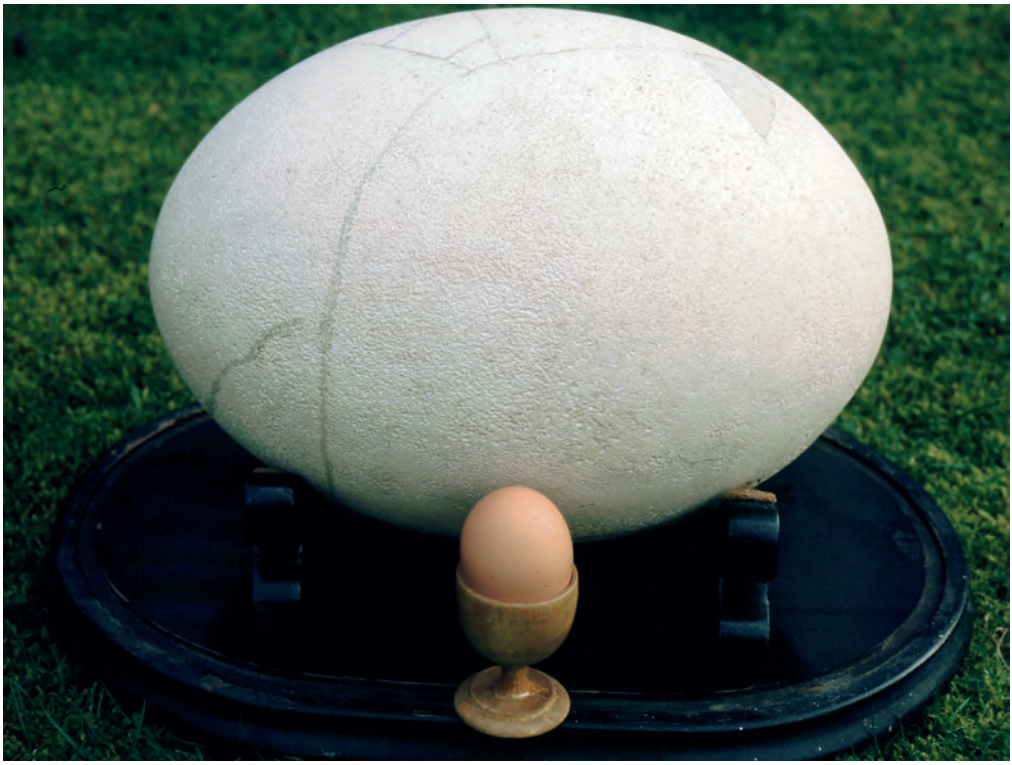

Fig 1 This hen's egg reveals the huge (and possibly unsustainable) size of the *Aepyornis* egg behind it

content would have been a welcome dietary supplement for other animals, but this is only one of the mysteries associated with these eggs. Even more surprising is the fact that two intact *Aepyornis* eggs have been found on the western coast of Australia, one in 1930 and the other in 1992, having apparently floated several thousand kilometres across the Indian Ocean without breaking. An (African) ostrich egg and an African glass float have also been recorded making a similar journey. The 1992 egg is thought to be about 2000 years old, but may have arrived in Australia relatively recently (Long *et al*, 1998). However, it is also possible that the *Aepyornis* eggs were carried east on board a trading ship, and ended up in the sea after a shipwreck. Certainly, the large eggs and their fragments have long been collected and traded as curios. One was offered to John Hancock at the Museum in Newcastle in 1884 by a correspondent in France. The intact specimen was to have cost 600 francs. In 2013 an entire egg was sold at auction in London for $101,813 (£66,675). Reconstructed composites are more common and sell for much less.

Extensive aggregations of giant egg shell fragments can be found among ancient Madagascan sand dunes (Fig 2), with radiocarbon dates suggesting they are between 850 and 7,500 years old. Masses of eggshell pieces were filmed by Sir David Attenborough on his visit to Madagascar 50 years ago, and also shown in a recent television programme in which he revisited the island (and subjects) of half a century earlier (*Attenborough and the Giant Egg*, BBC 1). The programme discussed why the

elephant bird had become extinct, concluding that there had been significant climate change and also massive impact caused by human expansion. I wonder if there is perhaps another important issue; that of the giant egg itself. An egg has to be as fully adapted to its own special way of life as the parent bird that laid it. In fact the ecology of eggs is as interesting and complicated as that of the parent birds, and just as vital for its survival. Maybe *Aepyornis* was an evolutionary experiment, and its egg was a crucial weakness that would have led to its extinction even without human intervention.

These huge eggs were probably at, or near, the largest size possible for one that is laid on land, teetering on the very edge of viability, trapped by the laws of physics. The shell had to be extra thick, or the egg would burst under the pressure of the fluid mass within it. But the thicker the shell, the harder it would be for the chick to escape when hatching, so a compromise was needed which probably made the eggs liable to breakage (hence all the fragments found today perhaps).

Also, as the egg was incubated, the size of the chick increased, and so did its need for oxygen. But the availability of air to breathe is constrained by surface area to volume ratios. As an object's volume increases, its relative surface area becomes less, an important principle that governs the life of most animals. So, oxygen demand would increase with the size of the developing chick, but its availability would be limited by the amount of egg surface in contact with the air through which the egg could breathe. A fully-developed *Aepyornis* embryo, the size of a bantam, would need a lot of oxygen in the days prior to hatching—even more when it struggled to escape from its eggshell prison.

Fig 2 Many giant egg shell fragments are found in the sand dunes of Madagascar, with radiocarbon dating placing them between 850–7,500 years old

But the giant egg had trouble breathing because of its necessarily thick shell. Bird eggs breathe through small respiratory pores in the shell, but as egg size increases, and with it demand for more oxygen, the egg cannot have too many more holes in the shell without losing its structural integrity and breaking apart. With bigger eggs

there is proportionately less shell surface to accommodate extra breathing holes. Furthermore, the thicker the shell, the longer will be the 'breathing tube' through which the oxygen has to pass. The rate at which oxygen would diffuse into the egg is related to both the distance it needs to travel and the narrowness of the tube through which it passes. The breathing pores cannot be increased in diameter to overcome this, nor could the thickness of the shell be reduced, as both would make the eggshell dangerously weak. Either way, enabling the necessary increase in oxygen uptake by the egg risks losing more water vapour through the breathing holes. It is for this reason that eggs lose weight as the chick grows larger inside, contrary to what one might expect. So, maybe the giant eggs were only just able to function, trapped between these physical limitations.

Archaeological remains suggest that the birds lived in forests that were steadily eliminated by human activity. Forest clearance, or even just thinning, would result in a humid microclimate being progressively lost. The eggs would then be exposed to a drier atmosphere, with the result that they would lose more water by evaporation. If they were already poised on the edge of possibility, then this additional challenge could easily have been one that the eggs could not overcome. Extinction would follow, not because the bird couldn't cope with environmental change, but because its immobile egg was unable to do so.

"...the elephant bird helps to highlight the issues that all eggs have to face during their brief period of existence. Perhaps we should think more often about the ecology of these potential weak links in the life of birds."

That still leaves the question of why, if this was a forest bird, so many shell fragments turn up in sand dunes. The eggs were probably not buried in hot sand to help incubate them as this would exacerbate the respiratory difficulties outlined above, although it might have helped with the water loss problem. Maybe burying them would have helped to hide the eggs and also provide some all-round physical support. Even being half-buried in sand would ease the problem of eggshell thickness and strength. The egg would no longer rest on just one small area of its lower surface, but be supported against the effects of gravity by lying in a cup of sand that distributed the weight of the egg over a larger part of its surface.

We will never know, but the elephant bird helps to highlight the issues that all eggs have to face during their brief period of existence. Perhaps we should think more often about the ecology of these potential weak links in the life of birds.

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An annotated catalogue of the botanical paintings of Thomas Alan Stephenson FLS (1898–1961)

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Of the many eminent scientists elected as Fellows of the Linnean Society of London since its inception, Professor Thomas Alan Stephenson (1898–1961) stood out (Fig 1), even among those distinguished individuals, possessed as he was of a remarkably wide range of talents. His more specialized knowledge embraced coral-reef growth and ecology, sea-anemone systematics, and taxonomy and ecology of native British orchids. On a wider scale, he originated a monumental plan to survey the seashores of the world in order to elucidate the universal features of algal and invertebrate zonation between tidemarks. He was also, moreover, a gifted artist, who could depict flowering plants and marine animals with almost photographic accuracy. The Linnean Society possesses three of his orchid paintings. Biographical details of Stephenson are provided by Yonge (1962, 2004), Pantin (1963) and Williams & Moore (2011). His marine biological paintings have already been catalogued (Williams & Moore 2011; Williams 2012, 2014) and a complementary account of his botanical paintings is provided herein.

Fig 1 Thomas Alan Stephenson, aged about 25 years. Photographer unknown, reproduced with permission of trustees of the late Anne Stephenson's estate.

Stephenson was greatly influenced in his youth by the physician and flower-painter Dr Harry Drinkwater (1855–1925), serving him well for his collaborative publications on orchids with his father, the amateur botanist Revd Dr Thomas Stephenson DD (1865–1948) between 1918 and 1925 (bibliography in Simpson 1960). Just as Stephenson's depictions of sea-anemones were so accurately and beautifully rendered (Williams & Moore 2011), his wild-flower paintings are equally accomplished (Figs 2 & 3). His 'capacity of capturing the complexity of the orchid is not only spot-on, but he manages to portray the "jizz" and feel of the plant, a feature not achieved by many latter day text-book illustrators' (Barry Phillips, Royal Horticultural Society, pers. comm., 30 November 2012). This lively quality is also evident in depictions of plants other than orchids, for example the sea campion in Fig 3. Cultivated, rather than wild, flowers were the basis for some of Stephenson's experiments in design, although their living features are just as closely observed (Fig 4).

Fig 2 *Orchis simia* (catalogue no. B27). Photo by the late Professor GE Fogg, reproduced with his permission.

Only three exhibitions of Stephenson's botanical artwork are documented. In 1919, at a meeting of the Linnean Society, 19 orchid paintings were displayed (Salmon 1919); in 1922, a single unidentified painting, most probably botanical, was shown in Birmingham (Johnson & Greutzner 1988); and in 1964, a posthumous exhibition arranged by his widow, Anne Stephenson (1899–1977), demonstrating the whole gamut of his watercolour and oil techniques for disparate subjects, visited various venues around the UK

Fig 3 *Silene maritima* (catalogue no. B28). Photo by the late Professor GE Fogg, reproduced with his permission.

(Williams & Moore 2011). Two catalogues for this memorial exhibition exist: the first (Anon 1964a) includes flower paintings numbered F1–15, and the second (Anon 1964b) extends the original list to F24 (F16–24 may comprise some or all of those noted thus in the first catalogue: 'Mounted but unframed flower paintings may be seen on the screens provided'). Paintings in the present catalogue are numbered with prefix 'B' to distinguish them from those in the marine biological catalogue (Williams & Moore 2011). For completeness, two paintings of algae (nos 9 and 43) from that previous catalogue are also included herein. Where appropriate, the present numbering is correlated with the 1964 catalogue numbers (series F, M and O), or other identifiers. Information on provenance and relevant inscriptions are also recorded. Paintings from the memorial exhibition may be identified by the four standard labels on the back of each original frame (see Williams & Moore 2011).

Fig 4 An arrangement of tulip flowers (catalogue no. B2). Photo by RB Williams, reproduced with permission of trustees of the late Anne Stephenson's estate.

Stephenson's artistic talent was extremely precocious; some of his paintings, both of sea-anemones and of flowers, were made when he was between 16 and 18 years old (eg combined catalogue nos 20, 30, 33, B27, B56, B57, B59, B62). His botanical paintings are much less well-known than his marine art, and this is the first time an attempt has been made to identify them and record their whereabouts. Whilst many of his marine biological paintings were used to illustrate books and papers, it seems that none of his botanical art has been published. Sixty-nine paintings of algae or

flowering plants are recorded herein, but the whereabouts of only 32 (46%) of them are currently known (Table 1), rather less than the 60% of known marine biological paintings that have been traced so far. It is particularly desirable to identify the paintings shown at the Linnean Society in 1919.

The untraced flower paintings may well include depictions of some of the species, varieties and hybrids of orchids formally described by the Stephensons (see Simpson 1960; Stace 2010), though at present it is impossible to know whether any might represent type-specimens. Although I know of several other botanical works in private hands, information about them was too vague for their inclusion in this catalogue. Since Stephenson was such a prolific artist, many more works probably remain to be located. However, those paintings in institutions that are accessible to scholars comprise quite enough material for scientific or artistic study (Table 1).

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Table 1. *An annotated catalogue of TA Stephenson's botanical paintings*

ABBREVIATIONS:

AUW, Aberystwyth University, Wales
NHM, Natural History Museum, London
RSL, Royal Society of London
LSL, Linnean Society of London
RHS, Royal Horticultural Society, London
IPH, in private hands

No.	Other identifiers	1964 exhibition, or other, titles	Notes	Present locations
9	M9; Z 88 f STE	Iridescent sea weeds, North Rock, Bermuda	Watercolour and gouache. Presented by Anne Stephenson, 3 September 1965	**NHM**
43	M43	*Lithothamnion*, encrusting calcareous sea weed		***Unknown***
B1	F1	Irises		***Unknown***
B2	F2	An arrangement of tulip flowers	Graphite and gouache on off-white paper, signed 'TAS'. Retained by Anne Stephenson and left to her family	**IPH**
B3	F3	A plant from South Africa		***Unknown***
B4	F4	House leek		***Unknown***
B5	F5	*Habenaria intacta*		***Unknown***
B6	F6	Early purple orchid, *O. purpurella*	Watercolour and gouache. Bought by Prof. PF Wareing in 1964, now with Aberystwyth University	**AUW**
B7	F7	Orchid (lady's slipper)	Sold at 1964 exhibition and withdrawn from tour	***Unknown***
B8	F8	Orchid (*Epipactis palustris*)	Sold at 1964 exhibition and withdrawn from tour	***Unknown***
B9	F9	*Omphalodes verna* and *Stropharia aeruginosa*	Lot 2085 (Gorringes Auction Galleries, Lewes; 11 September 2003): 'Two watercolours, Omphalodes Verna and Strophania [*sic*] Aeruginosa, 5.75 x 3.5 ins. and 5.75 x 4.75 ins. Framed as one'. Was not sold	**IPH**
B10	F10	The fungi *Chanterelle*		***Unknown***
B11	F11	Summer snowflake		***Unknown***

No.	Other identifiers	1964 exhibition, or other, titles	Notes	Present locations
B12	F12	Arum lily		***Unknown***
B13	F13	*Orchis purpurea*		***Unknown***
B14	F14	Butterfly orchid [mislabelled by Art Exhibitions Bureau]	Relabelled 'F14 Lizard orchid (*Himantoglossum hircinum*)'. Watercolour and gouache on grey paper. Bought by Peter V Oldak in 1964 and withdrawn from tour; sold privately in 2012	**IPH**
B15	F15	*Cephelanthera grandiflora*	Also labelled 'White helleborine'. Watercolour and gouache on grey paper. Bought by Mrs Violet Oldak (mother of Peter V Oldak) in 1964 and withdrawn from tour; sold privately in 2012	**IPH**
B16	F16	*Epipactis purpurata*		***Unknown***
B17	F17	Pasque flower—*Pulsatilla vulgaris*		***Unknown***
B18	F18	Autumn ladies' tresses—*Spiranthes spiralis*	Watercolour and gouache on greenish-grey board. Presented by Anne Stephenson on 14 August 1965	**LSL**
B19	F19	*Arabis turrata*		***Unknown***
B20	F20	Lizard orchid—*Himantoglossum hircinum*	Different from **B14** (= F14). Watercolour and gouache on grey paper. Retained by Anne Stephenson and left to her family	**IPH**
B21	F21	Spurred coral-root—*Epigonium aphyllum*		***Unknown***
B22	F22	Wild daffodil—*Narcissus pseudo-narcissus*		***Unknown***
B23	F23	Bird's nest orchid—*Neottia nidus-avis*	Watercolour and gouache on greenish-grey board. Presented by Anne Stephenson on 14 August 1965	**LSL**
B24	F24	Lesser butterfly orchid—*Platanthera bifolia*	Watercolour and gouache on greenish-grey board. Presented by Anne Stephenson on 14 August 1965	**LSL**

B25	O21	Pattern derived from sprigs of apple blossom		***Unknown***
B26	O22	Design of Larkspur flowers, *Atriplex* leaves and flowering rush		***Unknown***
B27	A/0232	*Orchis simia*	Watercolour and gouache on grey paper, framed. In black ink, 'Orchis Simia from n^{r} Paris 3.VI.15 by T. A. Stephenson'. Originally left in University College, London, retrieved by Prof. GE Fogg from bomb-damaged Botany Department in 1945, and bequeathed in 2005	**RSL**
B28	A/0233	*Silene maritima*	Watercolour and gouache on grey paper, framed. In white paint, 'T. A. Stephenson 16.5.17'. Provenance as for no. **B27**	**RSL**
B29	Not known	*Malaxis paludosa* Sw.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B30	Not known	*Corallorrhiza innata* R. Br.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B31	Not known	*Epipactis atrorubens* Roehl.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B32	Not known	*Epipactis latifolia* All.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B33	Not known	*Epipactis viridiflora* Reichb. and *E. viridiflora* var. *dunensis* Weld. & Trav. and *E. viridiflora* var. *vectensis* Stevens	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B34	Not known	*Orchis purpurea* Huds.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***

No.	Other identifiers	1964 exhibition, or other, titles	Notes	Present locations
B35	Not known	*Orchis incarnata* Linn. and *O. incarnata* var. *dunensis* Druce	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B36	Not known	*Orchis praetermissa* Druce	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B37	Not known	*Orchis latifolia* Linn.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B38	Not known	*Orchis Fuchsii* Druce	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B39	Not known	*Orchis maculata* Linn.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B40	Not known	*O. maculata* var. *insignis* Steph.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B41	Not known	*Orchis O'Kellyi* Druce	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B42	Not known	*O. Fuchsii* x *Habenaria conopsea* R. Br. and *O. maculata* x *O. Evansii* Druce	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B43	Not known	*Ophrys apifera* var. *Trollii* Heg.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B44	Not known	*Habenaria chlorantha* Bab.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B45	Not known	*Habenaria viridis* R. Br.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B46	Not known	*Habenaria viridis* x *conopsea* Benth.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***

B47	Not known	*Habenaria intacta* Benth.	Watercolour, according to Salmon (1919), but probably also includes gouache	***Unknown***
B48	None	Early purple orchid *Orchis mascula*	Watercolour and gouache on pale grey paper, mounted. Title on back	**AUW**
B49	None	*O. maculata* var. *insignis*	Watercolour and gouache on pale grey paper, mounted. On front, '*O. maculata* var. *insignis*. Fls. 1, *insignis*. 2, "Freak" form growing with *insignis*: 2 young fls'	**AUW**
B50	19	Common spotted orchid *Orchis fuchsii*	Watercolour and gouache on greenish-grey paper, mounted. Title on back. Numbered 19 on front—may be from same original series as nos **B56** and **B57** in the **RHS**	**AUW**
B51	16	*Spiranthes romanzoffiana* Irish ladies' tresses	Watercolour and gouache on dark grey paper, mounted. Number 16 and title on back – may be from same original series as nos **B56** and **B57** in the **RHS**	**AUW**
B52	RHS1	*O*[*rchis*]. *pyramidalis*	Watercolour and gouache on cream paper. 'Ballyvaughan 1915: Garden 1916. 17-19, 7.16'. Bought for 15*s*. Reginald Cory Bequest 1936	**RHS**
B53	RHS2	*Cypripedium calceolus*	Watercolour and gouache on grey paper, framed. Reginald Cory Bequest 1936	**RHS**
B54	RHS3	*Dactylorhiza majalis* ssp. *praetermissa*	Watercolour and gouache on cream paper. Signed 'TS'; 'the peculiar "*insignis*" from Tregaroa. 7.7.16'; 'form growing with *O. maculata* var. *insignis*'; 'Determinavit G. C. Druce'. Bought for 20*s*. Reginald Cory Bequest 1936	**RHS**
B55	RHS4	*Dactylorhiza majalis* ssp. *purpurella*	Watercolour and gouache on cream paper. 'Orchid field 15.7.16'; 'Wesley Manse, Ely Cambs, England'; 'purple dwarf x *O. latifolia*'; 'Aquarell von Stephenson, son'. Bought for 20*s*. Reginald Cory Bequest 1936	**RHS**

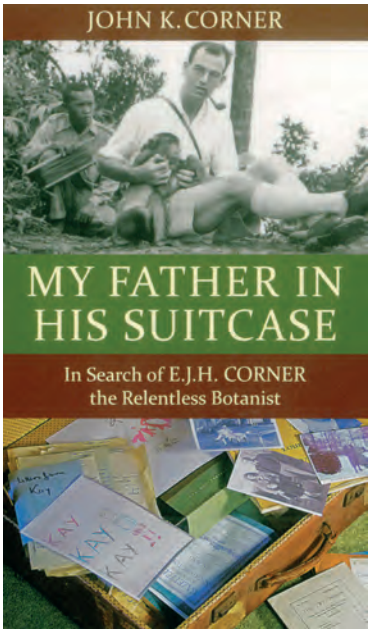
No.	Other identifiers	1964 exhibition, or other, titles	Notes	Present locations
B56	RHS5; 14	*Epipactis latifolia*	Watercolour and gouache on cream paper. 'Llanybyther, August 1915 TAS'. Numbered 14—may be from same series as nos **B50** and **B51** in **AUW**. Bought for 20*s*. Reginald Cory Bequest 1936	**RHS**
B57	RHS6; 15	*Epipactis media*	Watercolour and gouache on cream paper. 'Llanybyther. Aug. 15 1915 Reg. day'. Numbered 15 – may be from same series as nos **B50** and **B51** in **AUW**. Reginald Cory Bequest 1936	**RHS**
B58	RHS7	*Ophrys apifera*	Watercolour and gouache on grey paper, framed. Reginald Cory Bequest 1936	**RHS**
B59	RHS8	*Ophrys fuciflora*	Watercolour and gouache on cream paper. '19.6.15'. Reginald Cory Bequest 1936	**RHS**
B60	RHS9	*Ophrys lutea*	Watercolour and gouache on cream paper. '4.5.17'. Reginald Cory Bequest 1936	**RHS**
B61	RHS10	*Orchis mascula*	Watercolour and gouache on cream paper. Reginald Cory Bequest 1936	**RHS**
B62	RHS11	*Habenaria bifolia*	Watercolour and gouache on cream paper. '17 June 1915'. Reginald Cory Bequest 1936	**RHS**
B63	RHS12	*Trientalis europaea*	Watercolour and gouache on cream paper. Bought for 10*s*. Reginald Cory Bequest 1936	**RHS**
B64	Not known	[Cowslip]	Untitled, mounted; medium and provenance not known	**IPH**
B65	Not known	[Daffodil]	Untitled, mounted; medium not known; a gift from Anne Stephenson	**IPH**
B66	Not known	[Teasel]	Untitled, mounted; medium and provenance not known	**IPH**
B67	Not known	[Orchid]	Untitled, mounted; medium and provenance not known	**IPH**

My Father in His Suitcase: In Search of E.J.H. Corner, the Relentless Botanist

By John K Corner

431 pp., illustrated (some colour), Singapore, Landmark Books, 2013, paperback.

ISBN 978-981-4189-47-7



This 3cm thick tightly bound tome is neither easy to hold, nor to read, but does give a unique perspective on the life and career of EJH Corner from the viewpoint of his estranged son, John K Corner. A bequeathed suitcase of documents was left to gather dust for decades, but upon opening it Corner has followed up every lead in investigating the truth behind his father's activities and achievements. The role he played in Singapore under the Japanese occupation is still a sensitive subject for many remaining survivors, and this publication gives a full and unbiased account of those years.

Corner's many associates and students come into the picture, as well as his work as both an explorer of tropical montane forests in Indonesia and his eccentric 'Durian' theory of plant evolution. Corner's arrogance and single-mindedness crops up again and again, but credit is given to his work as a teacher and conservationist, with the designation of Mount Kinabalu in Borneo as a National Park serving as his lasting legacy. Inevitably, his son's life also comes into the story from time to time, as does something of an obsession with probing the opinions and memories of all who had contact with his father. Having met EJH Corner, and also many of the other people mentioned in this book, I did come away with a far greater understanding of both the man himself and the network within which he worked.

Gina Douglas, *Editor*
gina@linnean.org

If you know of a book that is suitable for review in* The Linnean *please contact Gina Douglas via gina@linnean.org for further details.

226th Anniversary Meeting of the Linnean Society

held at Burlington House, Piccadilly, London W1J 0BF

4.00 pm, Friday 23 May 2014

1. **The President** took the Chair and welcomed 92 Fellows and their 25 guests to the meeting.
2. **Apologies** had been received from 26 Fellows
3. **Admission of Fellows**: Terry ALLEN, Sara BURTON, Jonathon CLARK, Stephen J COOTE, Christopher DAVIS, Timothy DRAYCOTT, Rosalyn FRANKLIN Joanna LAMBERT, Geoffrey MUNN Stephen MONTGOMERY, Marsha Kay NORMAND, 'Katie' NORTHRUP, Ramon TAITZ, Pip WILLIS, Peter VERDON and Lizzie WEBBER signed the Obligation and were admitted.
4. The **Minutes of the Meeting held on 1 May 2014** were accepted and signed.
5. **Third Reading of Certificates of Recommendation for:**

a. Honorary Member: Sir David Attenborough

The Executive Secretary explained that this is the Society's highest level of Fellowship.

b. Foreign Members

To honour eminent biologists not residing in the UK:

Pieter Baas: is Emeritus Professor of Systematic Botany at Leiden University and was until 2005 the Director of the National Herbarium of the Netherlands and of the National Research School Biodiversity. Throughout his career he has emphasised the need to support research on tropical biodiversity and training taxonomists from developing countries. Pieter has received many honours, including the Linnean Medal and Knight in the Order of the Dutch Lion. Pieter has been a Fellow of the Linnean Society for over 45 years and is currently on the Steering Group of *The Linnean*.

Sherwin Carlquist: Professor Sherwin Carlquist is a distinguished American botanist whose career as a teacher and researcher has spanned almost 60 years, publishing some 320 papers and half a dozen books—his focus being the evolutionary, ecological and physiological significance of wood anatomy. He's been a Fellow of the Linnean Society for almost 40 years and has received numerous honours, his outstanding ability being recognised by the Botanical Society of America, the American Society of Plant Taxonomists, the California

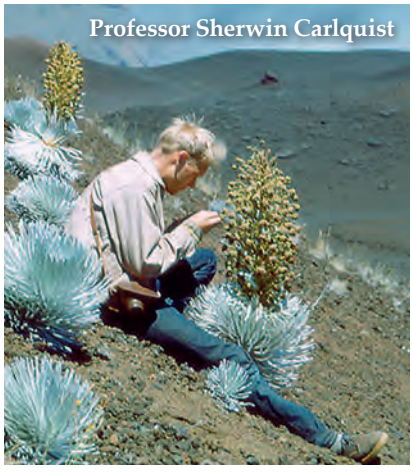


Image: Sherwin Carlquist image © Sherwin Carlquist

Academy of Sciences and the Smithsonian Institution, as well as the Linnean Society, among others.

c. Honoris causa

To honour eminent biologists residing in the UK and those who have made significant contributions to the Society:

William Lawrence Banks: Lawrence Banks CBE has been a Fellow of the Linnean Society for almost 20 years. Although a banker by profession, he has, together with his wife Elizabeth, managed Hergest Croft Gardens since 1988, continuing the tradition of adding newly introduced plants, which have been a feature of the garden since 1900, which now contains more than 5000 rare trees and shrubs, with over 85 Champion Trees. Lawrence is the former Treasurer of the Royal Horticultural Society and RHS Vice-President. He has been a keen supporter of the Society throughout his 20 years, particularly during the Fellows' fund raising campaign. The Society would like to recognise this support through election to Fellow *honoris causa.*

***John Roundell Palmer, 4th Earl of Selborne*:** Lord Selborne GBE FRS has been a Fellow of the Linnean Society for almost 20 years. He is a past chairman of the House of Lords Select Committee on Science and Technology, and chairs the Foundation for Science and Technology. In recognition of his support for the Society's broad strategic aims in the fields of taxonomy and systematics, biodiversity and conservation, Lord Selborne is most worthy of election to Fellow *honoris causa.*

David P Taylor Pescod: has been a Fellow of the Linnean Society for almost 50 years, coming to the Society through his broad interests in natural history and from a background in teaching and writing. He has made unstinting personal contributions to the Society, serving on the Library Committee for 20 years, and as Chairman for ten. David also served as Membership Officer over 12 years, and was House Keeper for the Society for three years, as well as photographer. David has had significant input into the Society's publications, checking copyright matters for the *Synopses*, overseeing the new *List* of Fellows in 2005, facilitating digitisation of the Society's 'Heritage Collection' and using his outstanding proof reading skills. He continues to volunteer at the Society, supporting meetings and membership, and ensuring that the Charter and ByeLaws are updated. It is entirely appropriate that the Society should recognise David's dedication and service by conferring the title Fellow *honoris causa*.

***Lisbet Rausing*:** Professor Lisbet Rausing has impeccable academic credentials: a BA from the University of California Berkeley and PhD from Harvard, where she was also an assistant professor, holding honorary doctorates from Uppsala University, Imperial College and the School of Oriental and African Studies. She has written a thematic biography of Linnaeus as well as numerous scholarly

papers. Together with Professor Peter Baldwin, she founded Arcadia, a UK charity that protects endangered culture and nature, awarding $234m to date. It was Lisbet's generous grant that initiated the project to digitising all the Society's Linnaean and Smithian collections. Lisbet's past and generous continuing support for the Linnean Society merit special recognition and accordingly her nomination for Fellow *honoris causa.*

6. **Appointment of Scrutineers.** The following were appointed as scrutineers; Dr Janet Cubey, Dr Mike Fay and Professor Mark Seaward.

7. **Ballots.** Fellows voted in the ballots for Members of Council (6), the Officers (6), the President-Elect, Honorary Member, Foreign Members (2), *honoris causa* (4) and for Fellows (27) and 1 Associate.

8. **Citations and Presentations of Medals and Awards:**
(Note: the full citations for all awards are available online at linnean.org/thelinnean)

a. The President presented the **2014 Linnean Medal in the field of Botany** to ***Professor H Walter Lack***. The citation was read by ***Scientific Secretary, Professor Simon Hiscock***:

"Professor H Walter Lack received his PhD from Vienna University in 1973. He joined the Botanic Garden and Botanical Museum Berlin-Dahlem in 1975. In 1997 he became Professor Extraordinary at the Freie Universitat Berlin and since 1994 he has held and holds many Visiting Professorships at other Universities. The Republic of Austria has recognised Walter's outstanding research and publishing record by awarding him a series of honours culminating in the Order of Merit, First Class, in 2007. His current interests and research focus on the activities of the Bauer Brothers and their botanical paintings, and the Flora Brasiliensis Story. He is undoubtedly a most worthy candidate for the Linnean Medal in the field of botany."

b. The President presented the **2014 Linnean Medal in the field of Zoology** to **Professor Niels Christensen**. The citation was read by ***Scientific Secretary, Dr Malcolm Scoble:***

"Until his retirement in March last year, Niels Kristensen was Professor of Systematic Entomology at the Natural History Museum of Denmark. Apart from long-term research visits abroad, he has spent his entire career at this august organisation and he continues an active research programme there as Professor Emeritus. Niels Kristensen has made outstanding contributions to two areas of research in systematic entomology. The first of these is his innovative work on Lepidoptera anatomy and systematics. His second area of interest is on the phylogeny of higher insect taxa. He has succeeded also in training a future generation of students in deep morphology, skills which if lost would have been to the great detriment of systematic zoology. Professor Kristensen has made a considerable contribution to the scientific community in numerous advisory and editorial roles, and he has received many

The 2014 Medal, Award and Prize Winners: *(from left to right)* Dr Sylvia Pressel (Trail Crisp Medal); Dr Simon Renny-Byfield (Irene Manton Prize); Professor Dolph Schluter (Darwin-Wallace Medal); Dr Orly Razgour (John C Marsden Medal); Dr Bonnie Webster (Bicentenary Medal); Esmée Somers Winkel (Jill Smythies Award); Professor Dianne Edwards PLS; Sir Christopher Lever (HH Bloomer Award); Professor Niels Christensen (Linnean Medal—Zoology) and Professor H Walter Lack (Linnean Medal—Botany)

academic honours, including 'Foreign member' of the Linnean Society. He is thus highly deserving of the Linnean Medal in the field of zoology for 2014."

c. The President presented the **2014 Darwin-Wallace Medal** to **Professor Dolph Schluter**. The citation was read by ***Professor Mark Chase, the Editorial Secretary***:

"Professor Dolph Schluter has made outstanding contributions to the study of speciation and adaptive radiation, clarifying the role of environmental factors causing divergence that prevents newly formed species from breeding with each other and enables them to coexist. He has done this by developing a rigorous and testable theory of ecological speciation, establishing the three-spine stickleback as a model system for experimental investigation. Dolph also has many editorial responsibilities and is currently President of the American Society of Naturalists. Dolph's extraordinarily productive research has led to a stream of important and influential papers from his group on morphological evolution, reproductive isolation, hybridisation, and ecological speciation. Together with David Kingsley, they have exploited the stickleback model for genetic mapping and for evolutionary and developmental biology (evodevo), thus carrying the Darwin-Wallace program of scientific natural history research into a modern arena, spanning field observation and quantitative description, theory, field experiments and molecular genetics. For these major advances in evolutionary biology, Professor Dolph Schluter is richly deserving of the Darwin-Wallace Medal."

d. The President presented the **2014 Bicentenary Medal** to **Dr Bonnie Webster**. The citation was read by ***The President, Professor Dianne Edwards:***

"Dr Bonnie Webster has an excellent academic record and has had a close and successful association with the NHM, having conducted her PhD under the supervision of Dr Vaughan Southgate in collaboration with University College London. Bonnie is currently working on the population genetics of schistosome parasites subjected to different control regimes in different parts of Africa. Dr Webster has made significant contributions to the understanding of genetic diversity within both free-living and parasitic genera and has a strong string of publications (over 40) primarily relating to the use of mitochondrial genomes to determine relationships between taxa. Dr Webster has already made a significant contribution to the scientific community, actively supervising and teaching MSc and PhD students. Her expertise is sought by many scientific journals for review purposes. She thus is well deserving of the Bicentenary Medal in recognition of her excellent work as a biologist under the age of 40 years."

e. The President presented the **2014 Trail Crisp Medal** to **Dr Silvia Pressel**. The citation was read by ***Professor David Cutler, Past-President***:

"Since receiving the Irene Manton Prize in 2007, followed by a Leverhulme Early Career Fellowship and, from 2010, employed as a Researcher in Biodiversity (Bryophytes) at the Natural History Museum, Dr Silvia Pressel has now become a world authority on imaging of bryophytes. Her work combines light and electron microscopy and embraces mosses, liverworts and hornworts. Perhaps most remarkable of all, her discovery that intercellular spaces in bryophytes differ in origin from those in tracheophytes adds new fuel to current debates on the origin and primeval function of stomata. She has editorial duties and is responsible for imaging in externally funded projects with Cambridge, Sheffield, Kew, Munich, Illinois and Ascension Island. She is also collaborating with the Palaeontology Dept at the NHM on the reinterpretation of Devonian fossils. Silvia thus richly deserves the Trail-Crisp Award for contributions to microscopy."

f. The President presented the **2014 Irene Manton Prize** to **Dr Simon Renny-Byfield**. The citation was read by ***Professor Simon Hiscock, Scientific Secretary:***

"Dr Simon Renny-Byfield graduated with First Class Honours in Genetics from Queen Mary University of London in 2008, continuing there to do his PhD with Professor Andrew Leitch, his thesis being entitled "Evolution of repetitive DNA in angiosperms: examples from *Nicotiana* allopolyploids". He is currently a post-doc researcher in the lab of Professor Jonathan Wendel, in the Department of Ecology, Evolution

Dr Simon Renny-Byfield

Image: Dr Simon Renny-Byfield image © The Linnean Society of London

and Organismal Biology, at Iowa State University, USA. Simon's PhD studies focused on the evolution of repetitive DNA in plant genomes, a fundamental process in plant evolution, using *Nicotiana* and fluorescence *in situ* hybridization techniques to understand the chromosomal organisation of repetitive DNA, later moving on to advanced next-generation 454 and Illumina DNA sequencing technologies. This has allowed the development of novel computational techniques for analysing repetitive DNA. Simon's PhD examiners (of which I was one) were impressed with his knowledge and critical evaluation of his data, especially his insightfully written conclusions. Simon is thus a most worthy recipient of the 2014 Irene Manton Prize."

g. The President presented the **2014 John C Marsden Medal** to **Dr Orly Razgour**. The citation was read by ***The President, Professor Dianne Edwards:***

"Dr Orly Razgour did her PhD in the School of Biological Sciences at Bristol University, her thesis was entitled 'From genes to landscapes: conservation biology of the grey long-eared bat, *Plecotus austriacus*, across spatio-temporal scales. Orly has made substantial contributions to understanding the ecological requirements of one of Britain's least known mammals, the grey long-eared bat, and has shown how to implement this new research for conservation action via a handbook that can be assimilated by a general audience and which can be downloaded with open access. Orly is an exceptional all-round biologist with broad skills ranging from molecular ecology, fieldwork, statistics, and ecological modelling, always applying exceptional intellectual rigour to her applied conservation studies. Orly's findings have broad applications and have more than demonstrated that she merits the award of the John C Marsden Medal for 2014."

h. The President presented the **2014 Jill Smythies Award** to **Esmée Somers Winkel**. The citation was read by ***Professor Gren Lucas, the Treasurer:***

"Working in the newly-established Naturalis Biodiversity Center in Leiden, Esmée Somers Winkel is a young and very talented Dutch botanical artist, who combines technical skills and artistic qualities with a very keen eye for botanical observation—three ingredients for excellence in botanical illustration. She only completed her Masters in Scientific Illustration at Maastricht University and the Academy of Fine Arts and Design in 2013, but has already produced an impressive portfolio of published and "in press" scientific drawings in international journals and Flora. All scientists working with Esmée and the Jill Smythies Prize judges are extremely impressed by the quality of her work. Esmée Somers Winkel is undoubtedly a most worthy winner of the Jill Smythies Prize for published botanical art."

i. The President presented the **2014 HH Bloomer Award** to **Sir Christopher Lever**. The citation was read by ***Dr John David, the Collections Secretary:***

"Since his first book on the subject, *The Naturalised Animals of Britain and Ireland* in 1977, Sir Christopher Lever has become recognised as the leading authority on the

history, introduction, establishment, ecology and the economic and ecological impact of naturalised vertebrate species worldwide In 2011, at the age of 79, Christopher was awarded a PhD (not honorary) by the University of Cambridge, 54 years after graduating as a BA, in recognition of his work on naturalised species, his collected works being accepted in lieu of a thesis. His PhD examiners, Christopher Perrins FRS from Oxford University and William J Sutherland from Cambridge commented in particular on Sir Christopher's considerable contribution to scholarship. The breadth and depth of Sir Christopher's contribution to natural history makes him a most worthy winner of the HH Bloomer award for an amateur naturalist."

Sir Christopher Lever and Professor Dianne Edwards PLS

9. Treasurer's Report

The Treasurer presented the **Accounts for 2013**, drawing attention to the Society's assets on the balance sheet, which had exceeded £3m for the first time—but he hastened to add that this did not mean that the Society was rich but rather that its assets were tied up. The Treasurer went on to thank the quiet team that Fellows never see, firstly to Professor Brian Gardiner having retired in 2013 after 30 years as Editor of *The Linnean,* and also his Production Editor Dr Mary Morris. Gina Douglas has taken over as Editor, with Leonie Berwick (Editor of *PuLSe*). The Treasurer summarised other events during 2013, namely installation of the lift, refurbishment of the library annexe, completion of cataloguing/conservation/digitisation projects (Mellon 3), receipt of a further grant from the Andrew J Mellon Foundation for the miscellaneous Linnaean manuscripts, increase in the number of Linnaeus Link partners, the growing Education team, Professor David Cutler's oversight of the Strategic Plan, the growing lecture programme, with new Lunchtime Lectures and regional initiatives. He informed Fellows that paper editions of the Society's 3 academic journals would no longer be routinely printed from May 2015, although a 'print-on-demand' option would be available at a cost. Fellows may subscribe to the on-line editions (£20/annum for all 3 journals). The Treasurer then reviewed the Annual Accounts. He concluded by again thanking the Society's staff, curators and other volunteers, as well as the Journal Editors and Publishers, emphasising that the Society would not exist without this, large and largely unseen, team for their total commitment to the Society.

10. Motion to Accept Accounts for 2013

Dr Nicholas Hind, a member of the **Audit Review Committee** read the following statement. "In accordance with Bye-Law 12.6, the Annual Statement

of Accounts for 2013, and the report of the professional auditors, were carefully examined by the Audit Review Committee of Fellows on 10 March 2014. On behalf of the Committee, of which I was a member, I am pleased to report to the Anniversary Meeting that we concluded that the Accounts give a true and fair view of the Society's finances as at 31 December 2013. I therefore move that they be accepted". This was carried unanimously.

11. Appointment of Auditors for 2014 and banking Arrangements

a. **The Treasurer** moved that the firm of **Knox Cropper, of 16 New Bridge Street, EC4V 6AX**, be appointed as **auditors** in accordance with Bye-Law 12.5, which was accepted unanimously.

b. **The Treasurer** moved that **Barclays PLC, PO Box 13555 Acorn House, 36–38 Park Royal Road, London NW10 7WJ** be reappointed as the Society's **bankers** and this was accepted unanimously.

12. The Presidential Address: Creating a 21st-century botanic garden in Wales

The President commenced her address by flagging the issue of the lack of a coherent funding approach (between government departments such as DEFRA, DCMS, BIS, RCUK, etc) for 'multipurpose' institutions such as RBG Kew, which was currently facing swingeing cuts. She said that science was falling through the net while, ironically, the government was being self-congratulatory about how it is ring-fencing science.

The President then outlined the difficult nascence of the National Botanic Garden of Wales, which opened in May 2000, with a vision based on two elements, the scientific and the aesthetic, highlighting the frequent conflicts between these aspects. The Garden is dedicated to conserving threatened plant species, particularly those native to Wales, Britain and the western seaboard of Europe, and seeks to demonstrate the relationship and interdependence of plants and society and to promote the sustainable use of plants. The Double Walled Garden provides the nucleus for a tour of the flowering plants, showing their evolutionary progression, radiating out from the Nymphaeales, the water-lilies. Horticultural challenges were numerous, from dealing with the cool temperate climate to accommodating the wide range of growth habits, from herbs to trees. The design group was led by Elizabeth Banks, who created the hard landscaping. The great glasshouse, designed by Norman Foster and Partners, has a spectacular dome, the largest single span glasshouse in the world. The planting here is zoned to reflect six areas of the world with a Mediterranean climate, namely California, Australia, the Canary Islands, Chile, South Africa, and the Mediterranean Basin. Two restored lakes in the garden have regular pond-dipping sessions for schoolchildren and families. The Rock of Ages is a unique display of Welsh geology spanning almost 700 million years of history, while the Waun Las National Nature Reserve lies adjacent to the north and east side of the formal Garden area, with a wide range of habitats including rhôs pasture, wet woodland and lowland meadows. The Garden is thus a great place to come and learn.

The President drew attention to a recent publication: *Flowering Plant Families at the National Botanic Garden of Wales, based on the Classification System of the Angiosperm Phylogeny Group,* Eds Dianne Edwards, Priscilla Spears & Alan Channing, ISBN 978-0-9546409-3-4, 270pp.

13. On behalf of the Fellows, Professor Simon Hiscock thanked the President for her interesting and highly informative talk. The President's comments regarding funding cuts at Kew, and the wider implications for the national capability in taxonomy and systematics were also pertinent.

14. Results of the Ballots

(74 papers returned for Council, etc; 75 for Fellows and Associates)

a. The following were elected to Council: Dr Francis Brearley (tropical ecologist, with focus on plant-soil-fungal interactions, forest regeneration), Laura D'Arcy (conservation biologist, with focus on Indonesia, deforestation, Sumatran tiger), Professor Jeffrey Duckett (bryologist, with focus on land plant evolution), Debbie Wright (recently retired Publishing Manager, with general interest in natural history), Professor Max Telford (zoologist, with focus on molecular systematics in arthropods and flatworms).

b. Professor Paul M Brakefield (evolutionary biologist, focus Lepidoptera) was also elected to Council and confirmed as President-Elect.

   Details of these new Council members can be found in *The Linnean Society of London Anniversary Meeting 2014 Council Agenda and Council Nominations*, circulated with *The Linnean* in April 2014, as well as at www.linnean.org/thelinnean. The President thanked outgoing Council members: Dr Sandra Knapp (who retired as Scientific Secretary in October 2013), Professor David Rollinson, Dr William Baker and Dr Joanne Porter, for their services to the Society.

c. The Officers elected were: President, Professor Dianne Edwards CBE FRS; Treasurer, Professor Gren Lucas OBE; Collections Secretary, Dr John David; Editorial Secretary, Dr Mark Chase FRS; Scientific Secretary, Professor Simon Hiscock; and Scientific Secretary, Dr Malcolm Scoble.

d. Sir David Attenborough was elected as Honorary Member.

e. Professors Pieter Baas and Sherwin Carlquist were elected as Foreign Members.

f. The following Fellows were elected *honoris causa:*

- William Lawrence Banks CBE
- John Roundell Palmer (Lord Selbourne GBE)
- David P Taylor Pescod
- Professor Lisbet Rausing

David Pescod thanked the Fellows most sincerely for the honour bestowed upon him.

g. The Fellows were elected as on the 23 May 2014 ballot list (27 Fellows and 1 Associate).

15. Names of Vice-Presidents

The President, Professor Dianne Edwards, named her Vice Presidents for the coming year as **Dr John David, Dr Anjali Goswami, Professor Mark Chase** and **Professor Paul Brakefield**.

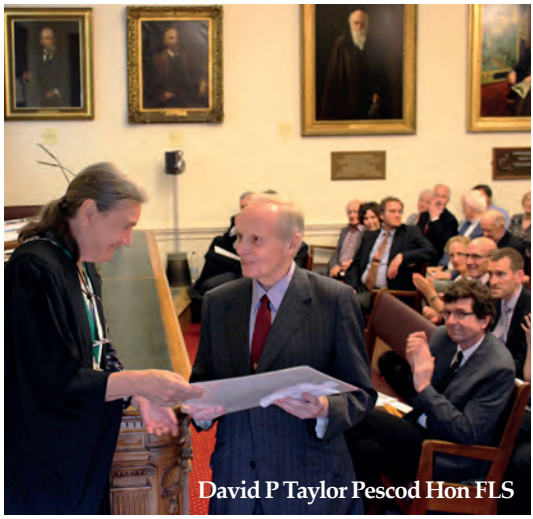
16. Any Other Valid Business

The President noted the dates of forthcoming meetings.

The next Anniversary Meeting will be on **Friday 22 May 2015 at 4pm**.

The Anniversary dinner was held at the Royal Society of Chemistry.

There being no other valid business, the President declared the meeting closed.



David P Taylor Pescod Hon FLS

The Linnean Society of London : Programme of Events

Nov 2014–March 2015

5 Nov
12.30–13.00

Forensic Entomology
Dr Martin Hall, *Natural History Museum, London*

10-11 Nov ⋆⋆
Two-day meeting

Radiation and Extinction: Investigating Clade Dynamics in Deep Time
☂ Dr Anjali Goswami, *University College London* and Phil Mannion
Taking place at the Linnean Society and Imperial College, London
Registration essential: www.linnean.org/radex

20 Nov A
17.30

Land Sparing vs. Land Sharing: Tackling the Greatest Environmental Challenge of the 21st Century
The Rachel Carson Memorial Debate in association with LERN
CHAIR: Professor Georgina Mace, *Director of the Centre for Biodiversity and Environmental Research*

28 Nov ⋆
18.00

In the Footsteps of Manton: Spores and Early Land Plant Evolution
Prof Dianne Edwards PLS
INAUGURAL REGIONAL ***IRENE MANTON LECTURE***
Taking place at the Michael Smith Building, University of Manchester

2 Dec A
18.00

Founder's Day Lecture 2014: Models and Metaphors, Orchids and Primroses: When, Why and How is a Person like a Plant?
Dr Jim Endersby, *University of Sussex*

3 Dec
12.30–13.00

Blaschka: Glass Creatures of the Ocean
Miranda Lowe, *Natural History Museum, London*
Stephen Ramsey, *Imperial College, London*

15 Jan A
18.00

On The Unfeathered Bird
Katrina van Grouw, *Natural History Museum, Tring*

29 Jan ⋆⋆
9.30–17.00
Day meeting

Systematics and Botanical Illustration
Joint day meeting with the Systematics Association
☂ Dr Mike Fay, *Royal Botanic Gardens, Kew* and Dr Robert Scotland, *Plant Sciences, University of Oxford*

19 Feb A
18.00

On The Natural History of Coffee
Dr Aaron Davis, *Royal Botanic Gardens, Kew*

19 March A
18.00

On Arthropod Evolution
Dr Greg Edgecombe, *Natural History Museum, London*

☂ Organiser(s) • ⋆ Registration required • * Payment required • A Admission of Fellows

All meetings are held in the Society's Rooms unless otherwise stated.
A tea reception precedes evening meetings at 17.30.
Evening meetings begin at 18.00 and are followed by a wine reception in the Library.

For more details visit **www.linnean.org/events**