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PULSE

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News from the Linnean Society of London – A living forum for biology

Virtual Linnaeus

Digitising the Linnaean Manuscripts

The Linnaean collections at the Linnean Society of London not only comprise specimens of plants, fish, shells and insects (acquired from the widow of Swedish naturalist Carl Linnaeus in 1784 by James Edward Smith), but also include Linnaeus's library of about 1,600 volumes and around 3,000 letters and manuscripts. This collection, with many annotated books and manuscripts, is an invaluable, if not currently accessible, source for how early modern naturalists and physicians developed new ways of thinking about the order of nature. They contain a wealth of material of interest to medical, economic and environmental historians, and also assist taxonomists in the formidable task of identifying the species Linnaeus described. Yet Linnaeus's manuscripts have been little studied so far, mainly because of the absence of a detailed item-level reference system, a proper catalogue (there only exists a list compiled by Swedish scholars in the 1950s), and modern editions and translations.

A collaboration between academics at the University of Exeter and the librarians of the Linnean Society means that by autumn 2013 a small proportion of Linnaean manuscripts will be available online—digitised, edited and searchable. The project, partly funded by the Wellcome Trust and supported by the Linnean Society, builds on research that is being conducted by Staffan Müller-Wille, Isabelle Charmantier, and Robert Leigh in the context of the Wellcome Trust funded project 'Rewriting the System of Natural: Carl Linnaeus's Use of Writing Technologies', hosted by the Centre for Medical History at the University of Exeter. This four-year project, which is now reaching its end, explores how Linnaeus dealt with what is sometimes called 'the first bio-information crisis'. For that purpose, the researchers on the project carried out detailed reconstructions of the ways in which Linnaeus assembled, filed and cross-referenced information about plants and their medicinal virtues on a daily basis. Linnaeus was one of the first to suggest that 'natural' plant genera and families share similar pharmaceutical virtues, and that herbal drugs and other useful plants might be sought out on that basis. The project has been able to establish that Linnaeus employed and developed a wide variety of paper technologies—including bound manuscripts, filing systems, book annotation and index cards. Yet, the central ordering device remained the genus, which also had a specific ontological status for Linnaeus. Linnaeus had a profoundly visual mind, exploring two-dimensional paper space for possibilities to depict taxonomic relations. In some cases, through folding and inserting paper in specific ways, even a third dimension opened up. In a conference that was organised at the Linnean Society (January 2012), Linnaeus's writing technologies were placed within the wider development of information management systems in the early modern period.

This collaborative digitisation endeavour will advance the project from a purely academic enterprise to a new platform in which the expertise of academics, archivists and digital humanities developers will be combined in order to make one of the most important manuscript collections in the history of natural history, medicine and the agricultural sciences accessible to researchers from a range of disciplines, as well as to the general public. The digital edition project is currently building an online database with high-resolution images of the source material (i.e. the manuscripts) that takes the peculiarities of Linnaeus's writing habits into account. The manuscript database will be embedded within the Society's existing Online Collections framework. There are numerous links

Continued on p.2

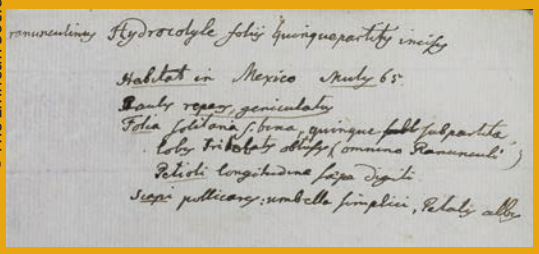
The LINNEAN SOCIETY of London

Continued from p.1

between Linnaeus's manuscripts, his specimens, his correspondence and his annotated library, which will be explored and enabled through this project. It will be a unique opportunity to start linking up the various online collections. Thirteen manuscripts are being incorporated into the online database, including: *Manuscripta Medica I* and *III* (1727–30/1730)); *Commonplace Book* (1726–27); *Spolia Botanica* (1729); *Hortus Upplandicus* (1730); *Fundamenta Botanica IV, VII* and *VIII* (1731/1731-33/1733); *Species Plantarum* (1746 and 1753); *Pharmacopæa Holmensis* (no date); *Linnes Anteckningar till Materia medica e regno vegetabili* (no date); *Paper Slips* (Late 1760s–70s).

The images will capture the material organisation of many of the manuscripts, and not just the content of what is written on the page. The metadata will reflect Linnaeus's own way of thinking—e.g. the centrality of the genus—but will also provide the possibility to connect it with present taxonomic categories. One of the manuscripts that have been chosen to be digitised consists of small paper slips which Linnaeus started to use towards the end of his career, in the late 1760s. These slips are surprisingly similar to index cards which only became a normal feature of libraries and administrations in the 19th century. Linnaeus started using these cards to prepare for the publication of *Mantissa plantarum altera* (1771) and continued using them until the end of his working life. Small, loose and of a standard format, they constitute a break in Linnaeus's working methods up until then. They can be linked to specimens Linnaeus received on a day-to-day basis from his world-wide correspondents, and that are still in the Linnaean collections. Hence for example, there exists a paper slip by Linnaeus on *Hydrocotyle ranunculinus*, which is related to a herbarium specimen Linnaeus received from the Spanish collector José Celestino Mútis from Nova Granada (present-day Columbia) on 6 June 1773 (LINN 332.15 in the Linnean collections).

***Hydrocotyle ranunculinus* LINN 332.15**



Linnaeus's accompanying note

© The Linnean Society of London

This digital edition of Linnaeus's manuscripts is being pursued as a joint venture of historians of science, archivists, and web developers, and should be available on the Linnean Society website in the autumn of 2013.

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S. Müller-Wille and I. Charmantier. 'Natural History and Information Overload: The Case of Linnaeus', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 43 (2012), 4–15.

S. Müller-Wille and I. Charmantier. 'Lists as Research Technologies', *Isis* 103:4 (2012), 743–752.

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Isabelle Charmantier, Elaine Charwat and Staffan Müller-Wille

Medals and Prizes 2014

The Linnean Society of London is proud to support and celebrate outstanding achievements in all areas of natural science. Now, with the 2013 Anniversary Meeting upon us, we'd like to ask Fellows to nominate candidates for our 2014 Medals and Prizes. Fellows are warmly encouraged to submit nominations for any of our Medals:

The Linnean Medal: awarded to a botanist or a zoologist for service to science

The Bicentenary Medal: awarded to a biologist under the age of 40 years in recognition of excellent work

The Darwin-Wallace Medal: awarded to persons who have made major advances in evolutionary biology

The HH Bloomer Award: awarded to an amateur naturalist for an important contribution to biological knowledge

The Irene Manton Prize: a prize of £1,000 to a PhD student for the best botany thesis in an academic year

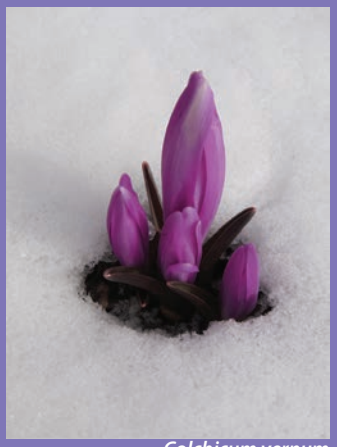
The Jill Smythies Award: a prize of £1,000 to a botanical artist for outstanding illustrations

The John C Marsden Medal: awarded for the best doctoral thesis in biology

In order to give our Council and Officers ample time to decide on the winning candidates, the deadline for all 2014 submissions has been brought forward to **30 November, 2013**. To nominate candidates, visit www.linnean.org/medals and download the appropriate form. We look forward to hearing from you!

Monocots: A virtual issue of the *Botanical Journal of the Linnean Society*

Monocots (ca. 25% of flowering plants) number some 60,000 species, of which >25,000 and >11,000 are orchids (Orchidaceae) and grasses (Poaceae), respectively, the latter group being of huge economic importance as the source of many of the major crops for human and animal food. Other well-known groups include sedges, rushes, palms and lilies, but, as discussed at previous Monocots Conferences, the monocots also encompass many taxa which were little known and difficult to place in classifications until the advent of analyses based on DNA sequence data. To mark the 5th International Conference on Comparative Biology of Monocotyledons (Monocots V) to be held in New York in July, a virtual issue of the journal has been compiled which includes ten significant papers from the 19th–early 21st centuries relating to monocots to give an impression of how the study of monocots has been represented in the Linnean Society journals and how it has changed over this period. These illustrate the use of different types of data (morphological, anatomical, biochemical and molecular) for clarifying patterns of relationships, dating lineages etc. in monocots. To read the virtual issue visit wileyonlinelibrary.com/journal/boj



Colchicum vernum © M. Christenhusz

The Dr Patrick Neill Memorial Medal 2013

The Linnean Society would like to congratulate Dr Mark Watson FLS after he was awarded the Royal Caledonian Horticultural Society's Dr Patrick Neill Medal 2013 for his contribution to botany.

Dr Watson leads the Major Flora team at the Royal Botanic Garden Edinburgh, is Editor-in-Chief of the and a specialist in both Himalayan botany and the Apiaceae. Most recently volume three of the *Flora of Nepal* was published, covering 21 families and 600 species.

The is the national horticultural society of Scotland, with strong historical links to the Royal Horticultural Society in London. The Dr Patrick Neill Memorial Medal is annually awarded to "a Scottish botanist or cultivator" for contributions to the subject; Patrick Neill (1776–1851), a naturalist and antiquarian, was one of the 17 founding members of the society in 1809.

Please join us in congratulating Mark, a Fellow of the Linnean Society since 1987, on his success.

Ground Roots:

Preserving the need to teach children to care for their environment

The Linnean Society of London is backing a campaign to oppose the British government's proposal to remove the requirement to teach children to care for nature from the National Curriculum. Currently, the curriculum outlines that in years one and two 'pupils should be taught to: care for the environment' and in years three to six 'pupils should be taught: about ways in which living things and the environment need protection'. Under the proposed changes, these points of study would disappear from the curriculum. The campaign, led by Elisabeth Whitebread (Director, Climate Rush) and Matt Williams (Co-Director, UK Youth Climate Coalition), has gained momentum and is being supported by people as varied as Sir David Attenborough HonFLS (Broadcaster and Naturalist), Jonathan Elphick (Natural History Author), Sara Oldfield (Secretary General, Botanic Gardens Conservation International), Robert Lucas (CEO, Field Studies Council), Dr Kirsten Pullen (CEO, British and Irish Association of Zoos and Aquariums) and Dame Vivienne Westwood (Designer). A letter from the signatories was published in *The Sunday Times* on 14 April:

Sir,

As the loss of wildlife and habitats continues apace, both in the UK and globally, and as evidence suggests growing numbers of children are missing out on the mental and physical health benefits of spending time in nature, the place of the natural environment in the national curriculum is more critical than ever.

Indeed, the British Government has committed to nurturing our children's love and respect for nature under two binding international agreements (the UN Convention on the Rights of the Child and the Convention on Biological Diversity Aichi targets).


Tony Juniper

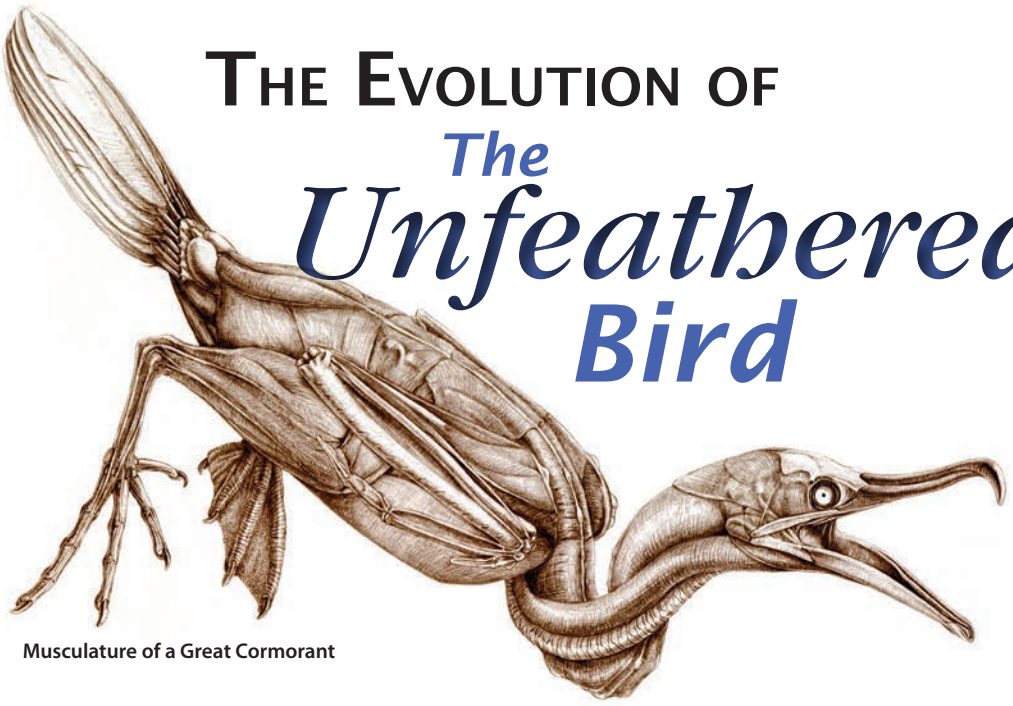
LETTER TO MICHAEL GOVE, THE SUNDAY TIMES, 14TH APRIL 2013.

However, under the Government's new draft national curriculum for England, education on the environment would start three years later than at present and all existing references to care and protection would be removed. This is both unfathomable and unacceptable.

Today's children are tomorrow's custodians of nature. Government has a duty to ensure that all pupils have the chance to learn about threats to the natural world, to be inspired to care for it and to explore ways to preserve and restore it. These proposals not only undermine our children's understanding and love of nature, but ultimately threaten nature itself, and through it the well-being of young people and all future generations.

The letter has since appeared on many blogs and been tweeted on Twitter by organisations such as WWF UK and the Marine Conservation Society. The issue was also picked up by The Guardian (www.guardian.co.uk/environment/2013/apr/14/plans-drop-climate-change-curriculum). A petition, to which anyone can add their support, has also been set up on change.org: www.change.org/en-GB/petitions/hey-gove-why-can-t-we-talk-about-the-environment.

The Evolution of *The Unfeathered Bird*



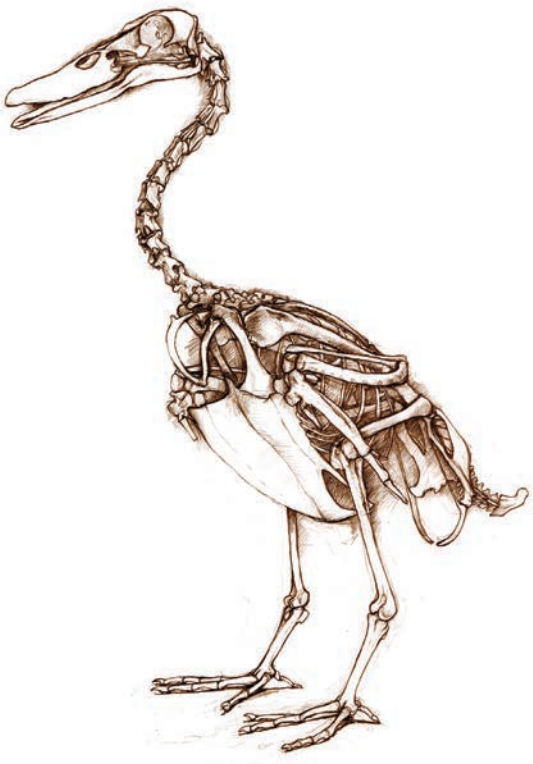
Musculature of a Great Cormorant

All images © Katrina van Grouw from The Unfeathered Bird, *Princeton University Press*

"Just who *is* Amy, anyway?"

It was a passive inquiry. My inquisitor simply imagined the mystery muse as a family member, old friend, or childhood mentor; someone who had inspired the idea for the book, perhaps, or nurtured it through the 25 year struggle from start to finish. My answer took him by surprise.

The Amy in question—the object of the dedication in the front of '*The Unfeathered Bird*'—was, in fact, a dead duck. She was never even a live duck. By that I mean that she was nameless until the day I picked up her fresh but lifeless corpse on the beach and decided she was a suitable subject for my next project.



Side-view of a mallard skeleton—Amy

I was an undergraduate Fine Art student of 22 with a passionate interest in natural history in general, and birds in particular. My college artwork was life-sized, Audubonesque, copper plate engravings of dramatic birds in similarly dramatic stances

I'd thrown myself with gusto into ornithology: trained to be a bird ringer; taught myself taxidermy and prepared bird skins as a volunteer at my local museum. All to kindle the flame of inspiration for my pictures of living birds.

What I was looking for that day, down on the beach, was a bird I could dismantle in stages, make drawings of, layer by layer, bone by bone; strip down and then re-assemble again as a skeleton. I wanted to 'do a Stubbs'.

If you're going to spend several months intimately involved with a dead duck, it's got to have a name. So I christened her Amy. The drawings of her and other early specimens were bound into a book with a professional-looking title embossed in gold on the cover: *The Anatomy of Birds*. Little did I realise what this humble collection would evolve into.

I would love to say that I spent the intervening years actively researching, writing and drawing the illustrations for the book that was to become *The Unfeathered Bird*, but reality is seldom so neat. It didn't take shape all at once and for a long while remained an ugly duckling before it finally developed into a swan. The first hurdle, I thought, was to convince a publisher that there would be a market for an anatomy book for bird artists. Yes, it began as a book for artists, and only much later did I realise that it might have wider appeal. Science publishers pointed me in the direction of arts publishers, and figuratively slammed the door; the arts publishers directed me back to the science set.

What I ultimately wanted to do was combine the beauty, the attention to detail and sheer artistry typified by the best historical illustrations—my old hero George Stubbs, Thomas Eyton in his wonderful *Osteologia Avium*, and the brilliant James Erxleben who illustrated Moa bones for Richard Owen—with up-to-date, jargon-free text that relates birds' structure with their lifestyle and evolution.

It was 2008 before the dream finally became a reality and work would begin in earnest.

Of course, there's no point in producing an anatomy book about bird behaviour if the drawings don't show birds engaged in that behaviour. Articulated skeletons in museums are usually shown in static or

Skeleton of a Salmon-crested Cockatoo

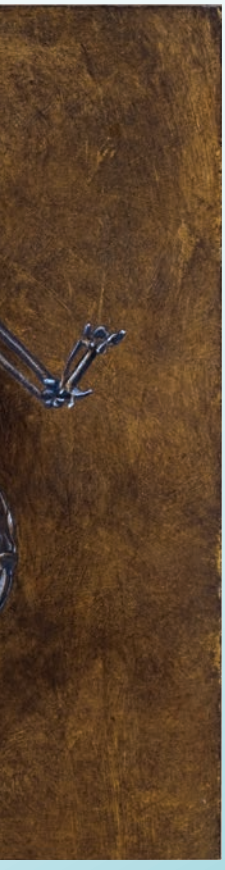
inaccurate positions, and are often slightly worse for wear.

No, wherever possible I needed freshly made skeletons made by someone, like me, familiar with the outside of birds as well as their internal workings. Someone who could assemble a skeleton in any position I chose, leaving me time to draw them and write the text. A search finally yielded just the right man for the job: the curator of birds and mammals at the Natural History Museum of The Netherlands—Hein van Grouw.

So I married him.

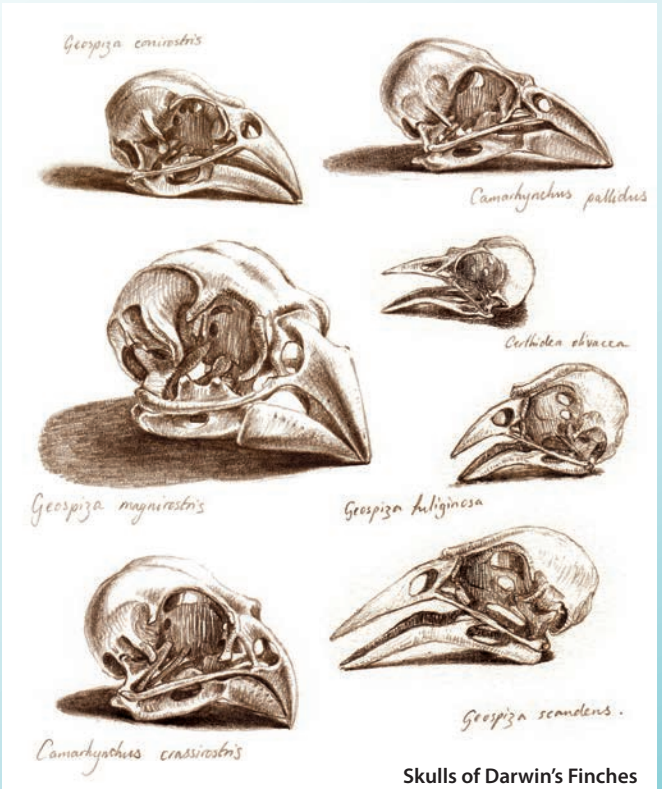
No birds were harmed during the making of the book. I relied exclusively on the goodwill of birds dying in places where they could be found, and the goodwill of people who were willing to pick them up for me. I had a freezer full of road kill and oiled seabirds; corpses were donated or loaned by biologists, taxidermists, aviculturists and conservation charities. The boiling began and the house was transformed. Evil smelling buckets whose contents were best left to the imagination, or denied altogether, appeared outside the back door and drying bones were lined up next to the crockery on the draining board.

While the bone factory chugged away downstairs, I'd be up in my study drawing the next subject on a seemingly never ending list; craning my neck over an enormous sheet of paper to see close-up details on an equally enormous skeleton on the other side. (I have a stubborn habit of working life-sized; a ridiculously impractical habit that causes only neck ache and storage problems.) Drawing the musculature of birds in lifelike positions meant rigging up some complicated device of wires, pins, thread and blocks of wood—the same technique that Audubon used, with a few modifications—to make a faintly grotesque artist's mannequin.



However, I'm not so much of a traditionalist that I'm against making some digital enhancements. One of these was to adjust the colour of the illustrations. Lead pencils may be my preferred medium to handle, but grey tones can look a bit dry and academic. And with a subject matter so steeped in preconceptions about college textbooks, that was something I wanted to avoid at all costs. I'd already decided that the book would follow the long-outdated taxonomy of Linnaeus, so a choice of warm, sepia lines against a background of pale cream paper seemed to fit the historical theme quite perfectly.

Yes, the choice of Linnaean taxonomy caused many a sleepless night. More than one ornithologist had asked, in a scholarly fashion, which order I intended to use, and it had soon become apparent that I wouldn't be able to please everyone. The problem is that many quite unrelated birds have come to resemble one another through occupying the same niche—a process called convergent evolution. I wanted to remain firmly on the fence in the hot debate. That's not what the book is all about.



Skulls of Darwin's Finches

What the book *is* about is adaptations. For example, to show how competitive pressure for survival has raised ostriches onto only two toes so that they can run faster, shaped penguin wings into blade-like paddles; how having an enormous breastbone has enabled sandgrouse to commute and how tinamous have risen above their disadvantaged background by sheer stealth tactics. So it made sense to arrange my birds solely according to external characteristics and habits, as Linnaeus had done—similar groups brazenly sharing the same chapter without the slightest concern for their actual evolutionary relationship. Of course, throughout the text I've taken pains to discuss birds' *actual* relationships; the latest theories thrown up by molecular studies, but the order of chapters remains firmly in the 18th century.

Skeleton of a Great Hornbill

In my living room, the skeleton of a Mallard looks down at me benevolently from its glass case. Amy is by no means the most elegant specimen in my possession, but she has a very special place in my affections. Who would have thought a dead duck could do so much?

Katrina van Grouw
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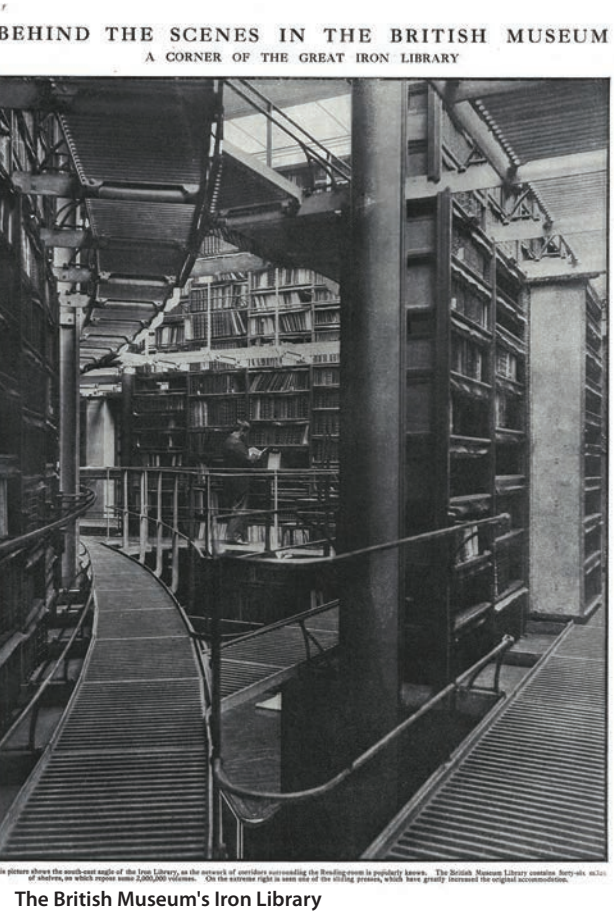
The Unfeathered Bird was published by Princeton University Press in late 2012
A review of the book will be available in an upcoming issue of *The Biological Journal of the Linnean Society*
To read more about the project visit www.facebook.com/TheUnfeatheredBird and www.unfeatheredbird.com

The vast stack rooms, neatly tucked around the central reading room in the British Museum, were built to carry the hefty weight of knowledge condensed in countless tomes.

This ingenious storage area was unusual in that a librarian actually drew up all the initial plans, and architects then realised it. Antonio Panizzi had been Keeper of Printed Books since 1837. His plan was approved by the museum's trustees in 1852.

Trust a librarian to usher in the most innovative book storage solutions: a cast-iron framework was installed, which supported three floors of double bookshelves arranged back-to-back. The great advantage was, of course, being able to store great numbers of books in a very tight space. But, crucially, by using cast iron frames instead of wood, air was allowed to circulate much more easily, allowing ventilation in enclosed storage areas, and actively preventing unpleasant surprises like mould or insect infestations. F.J. Burgoyne, in *Library construction: architecture, fittings and furniture* (London: George Allen, 1897) commends iron shelves for these properties, as well as for not further obstructing light in dark, crammed spaces. He concludes: "[Ventilation] is an important point, especially in the store rooms […], where long sets of books but little used are packed closely together, and are seldom removed from the shelves" (pp. 49–50).


BEHIND THE SCENES IN THE BRITISH MUSEUM
A CORNER OF THE GREAT IRON LIBRARY

The British Museum's Iron Library

It is worth noting in this context that it has always been an intrinsic part of a library's remit to retain material even if it is not often used. The definition of what is useful or worth preserving is highly subjective, and changes all the time with different agendas, just like knowledge itself. The goal is to take an objective and long-term view; it can pay to be cautious about getting rid of printed material. If material is not much used, has been digitised or causes a shortage of space the inclination may be to throw it out. Yet these documents can prove to be rare and valuable, on many levels, precisely because they are so ephemeral.

So innovation was (and still is) needed to store the body of ever-growing knowledge, but, at the time, it seemed slightly shocking to people that iron should be used instead of wood. The British Museum storage area came to be nicknamed, perhaps not altogether affectionately, as the "iron library".

But once the idea of tucked-away, tightly packed book storage had caught on, it was developed rapidly by Victorian inventors, engineers and manufacturers. These iron Victorian book stacks dramatically reduced the space required to store books. In spite of that, the British Museum's "iron library" was at maximum capacity 30 years after it was built.

Lack of space is a problem as old as the libraries themselves, and where we at the Society now have a new building with current state-of-the-art mobile compactor shelving, our predecessors in Victorian times did come up with very similar solutions. We also have an "iron library". What is more, it is a mobile iron library, effectively combining two Victorian innovations.

Enter the bowels of the Society's East Basement (underneath the Geological Society), and you will notice a very heavy iron door, which looks like a walk-in safe or a Gringott's bank vault. Behind the door is indeed a vault, and it holds a pristine example of Victorian cast-iron mobile shelving. It was a very sensible decision to use iron

Victorian Lambert compactor shelves at the Linnean Societ

shelving here—a darker, more enclosed and potentially more humid space than a basement vault is hard to imagine. Instead of running on rails anchored to the floor like modern mobile shelving, Victorian mobile shelves hang suspended, also on rails, from the ceiling. A quick check revealed that they are indeed the famous Lucy & Co. shelves, which were widely used in the 1890s and 1900s, for instance in the Patent Office in Chancery Lane, the India Office, the Royal Observatory Greenwich and St. Bride's Institute. Adverts for the shelving can be found in many contemporary magazines like *Library World*, praising it as "the only British invented and British manufactured Adjustable Shelving on the market" as well as citing the professionals for endorsement: "A well-known Librarian

Iron rary

T GEM OF ENGINEERING

y © *The Linnean Society of London*

They were manufactured in Oxford, based on the patent of Arthur Wrenn Lambert. The markings on our shelves either read "Lucy & Co Engineers, Oxford" or "Perfect Adjusting Shelving, Lamberts Patent, Manuf. by W. Lucy & Co. Ltd Engineers & Founders Oxford".

Their inventor, Arthur Wrenn Lambert, is a very interesting character. A native of Croydon, South London, he was well-known as a mechanical engineer-cum-inventor across the world, but never did business on a large scale, happy with a humble workshop and a handful of employees. He also invented innovative card trays, paperclips, a new variety of the sheaf catalogue, a newspaper rod and a directory holder. A major invention was a "wicket" gate for open access libraries in what can be called the Golden Age of public libraries. Apparently, Worcester Public Library was the first library fitted with his most famous invention—the movable steel shelves with perfect adjustment. One of the secrets of his success was that he read every book about libraries and librarianship that he could lay his hands on, and counted many librarians among his friends—he knew his libraries inside-out. When he died on the 1 October 1924, he was much lamented by the library community.

The Society's East Basement shelves were probably fitted by the government for the Chemistry Society (now the Royal Society of Chemistry, who occupied this space before the Linnean Society) in the 1890s or 1900s. Given the popularity of Lambert's shelving system, it is sad to think that the East Basement is one of the last places where his shelves seem to have remained *in situ*, virtually untouched, still fulfilling their original function admirably in our dark vaulted basement. Most such shelves in other places have been removed over time to make space for more modern versions of the same idea or as libraries are being closed down—unfortunately increasingly commonplace now.

The shelves are an example of beautiful workmanship, combining innovative, engineered high-tech functionality with an organic and visually pleasing design (especially note the decorative cast iron ends with an acanthus leaf variation in the style of William Morris's Arts-and-Craft). Not surprisingly, they have lately been sold for considerable sums at Christie's and Bonham's. Some shelves from the Patent Office ended up in a fancy reclaimed furniture shop. Their advert reads:

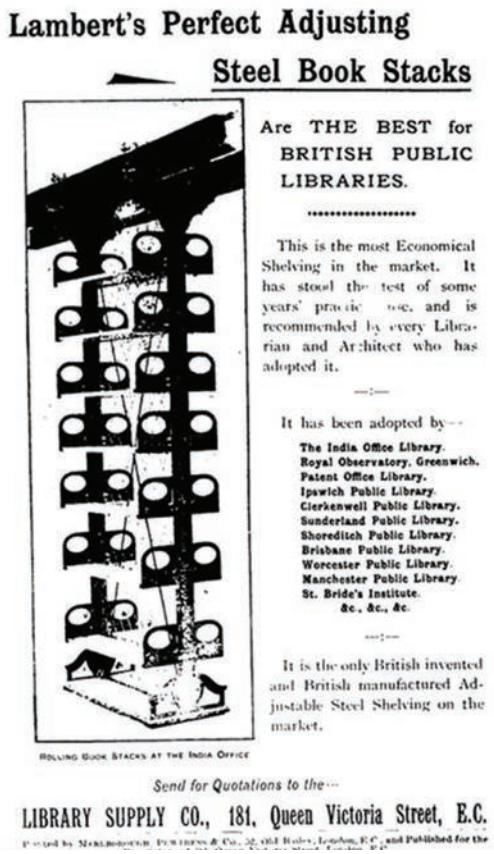
> *A few years ago we bought a vast amount of this shelving which had been removed from The Patent Office in Chancery Lane. 'Perfect Adjusting Shelving, Lambert Patent, Manufactured by W Lucy & Co Ltd Engineers & Founders, Oxford'. Price: about £3,000 + VAT as shown.*

Our basement vault and the Victorian shelves have been used for filming, and they really deserve to be appreciated and shown off more. They are not only a rare surviving bit of library and architectural history, but also, following the bright example of Panizzi and Lambert, a testament to the innovative thought of librarians when designing and planning book storage. They are also a reminder that libraries are not just about functionality—they are beautiful, inspiring places, and we are proud to continue this tradition.

A repurposed Lambert shelf

Image provided by and © Retrouvius.com

Elaine Charwat
Deputy Librarian
elainec@linnean.org



Lambert's Perfect Adjusting
Steel Book Stacks

Are THE BEST for BRITISH PUBLIC LIBRARIES.

This is the most Economical Shelving in the market. It has stood the test of some years' practice, and is recommended by every Librarian and Architect who has adopted it.

It has been adopted by—

The India Office Library.
Royal Observatory, Greenwich.
Patent Office Library.
Ipswich Public Library.
Clerkenwell Public Library.
Sunderland Public Library.
Shoreditch Public Library.
Brisbane Public Library.
Worcester Public Library.
Manchester Public Library.
St. Bride's Institute.
&c., &c., &c.

It is the only British invented and British manufactured Adjustable Steel Shelving on the market.

Rolling Book Stacks at the India Office

Send for Quotations to the—

LIBRARY SUPPLY CO., 181, Queen Victoria Street, E.C.

Ad for Lambert shelves in *Library World* 1901

A Hidden Treasure: The Bournemouth Natural Sciences Society museum

On 7 June the Linnean Society will hold a joint meeting with the Society for the History of Natural History (SHNH) in Bournemouth to celebrate the life of Alfred Russel Wallace. The line-up of events, in association with Bournemouth University's Festival of Learning, includes lectures about Wallace's life, collections and ground-breaking work in the field of natural history, and incorporates a visit to the great man's grave. This will be followed by an evening reception, very appropriately, at the Bournemouth Natural Sciences Society (BNSS); Alfred Russell Wallace was their first honorary member when he lived in Broadstone, Dorset. The president of the BNSS, Mark Spencer, will also be leading a short walk on Dunyeats Heath, backing onto the cemetery, after the visit to the grave.

The museum's butterflies

The BNSS museum (www.bnss.org.uk) is an extensive and fascinating collection of natural history objects, including classic cases of taxidermy, skeletons, fossils, Victorian butterfly displays and zoological curios. The collection, maintained by a keen group of volunteers, is kept in a large elegant mansion owned by the BNSS. The reception lasts from 6.00–7.30pm, but we have no doubt that Fellows will be sufficiently impressed to make further visits in the future. Don't miss it!

The BNSS building

For more information about this event and other associated events visit www.linnean.org/wallacebournemouth

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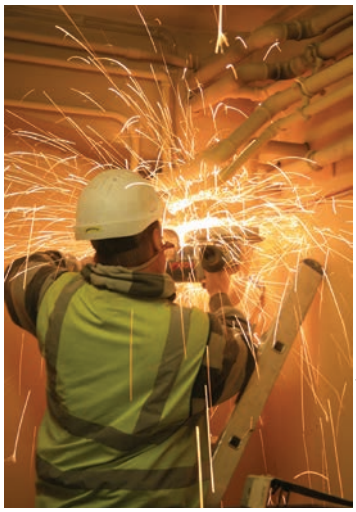
Update on Building Work

Work on the lift at Burlington House has been ongoing since December 2012. The lift itself has now been installed and is being tested, with the landings being put in place and construction of the new access stairs about to commence.

As we continue to assess the building work schedule, please check our website for the location of upcoming meetings or email events@linnean.org



© Victoria Smith

Congratulations to Ray Heaton FLS

Ray Heaton on the Society's Field Trip

© Elizabeth Rollinson

The Linnean Society would like to offer warm congratulations to Fellow Ray Heaton on his appointment as Vice President of the Zoological Society of London (ZSL). Ray has been a member of the ZSL council for more than ten years, having also served on the Zoo Advisory Committee. Additionally he was formerly a council member of NEZS Chester Zoo. Among his publications, Ray researched and co-wrote *The Good Zoo Guide* for HarperCollins.

With a particular interest in promoting work to help critically endangered species, Ray has travelled extensively to witness species within their natural habitat, alongside visiting many zoological organisations.

Ray's work has been driven by a belief that good zoological collections can make a major contribution towards species and habitat conservation; it is important to remember that much of the variety of biodiversity the public see first-hand is observed in zoological and botanical collections.

Fellows' Contributions 2013

Fellows are reminded that payment of contributions is due on 24 May 2013. Invoices were dispatched to those who requested it during the first week of May. Contributions will be collected on the 24 May from Fellows paying by direct debit.

Forthcoming Events 2013

24 May 2013 **16.00–18.30**	Anniversary Meeting AGM and annual Award giving at the Royal Astronomical Society. Registration required www.linnean.org/anniversarymeeting2013
7 June 2013 **Day Meeting** **10.30–17.00**	'Unremitting passion and beauty of the natural world' – Alfred Russel Wallace Centenary Joint meeting of the Linnean Society of London and the Society for the History of Natural History. University of Bournemouth. Registration required: www.linnean.org/wallacebournemouth
20 June **Evening Meeting** **18.00–19.00**	Life Without Light: The Natural History of Movile Cave. Speaker: Dr Rich Boden FLS www.linnean.org/lifewithoutlight
22 & 23 June **Field Trip**	Annual Field Trip 2013: North Wales Exploring the Flora and Fauna and dramatic coastline of North Wales. FULLY BOOKED www.linnean.org/fieldtrip2013
21 July 2013 **Day Meeting**	Conversazione: Hergest Croft Gardens Registration required: www.linnean.org/conversazione2013

All articles welcome! Please submit your articles in electronic format to the Editor at pulseeditor@linnean.org
Images are also welcome in high resolution format with appropriate permission and copyright.

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