As with the majority of other English public schools, specialist science masters were not appointed at Eton College—nor were laboratories built—until the latter half of the 19th century. By 1875, however, sufficient funds had been raised to form a natural history museum, which has been on its present site since 1895 and which remains to this day the only dedicated museum of its kind in Berkshire.

At the time of the museum’s formation the school already owned an extensive collection of natural history specimens of exceptional quality—especially birds, having in 1850 inherited from the Revd George Thackeray (an Old Etonian who subsequently became provost of King’s College, Cambridge in 1814) his collection of British birds which was said to be the finest of its kind in England in private hands.

Throughout the early 20th century the museum’s collection grew somewhat haphazardly, augmented from time to time by hunting trophies from around the world shot by Old Etonians: curatorial duties were the responsibility of the boys themselves, under the supervision of a master.

When I was a boy at the school in the latter years of the Second World War the museum was in a sorry state, and many of the displays had become very dilapidated. In the 1990s the museum was closed for radical refurbishment; some items, for which there was scant or no scientific or other data, were sold, and some (such as the molluscs) were donated to other museums. In 2000 a revitalised museum, now housing over 16,000 specimens, was reopened; all 70 of the displays were arranged from 2000. The reorganisation of the museum was based on educational needs, and it is now extensively used for teaching biology and geology both within Eton and also by many other schools and outside groups. The Eton College Natural History Museum is an accredited teaching location for Slough Children’s University and an outreach partner with Royal Holloway, University of London.

Birds are exceptionally well represented in the museum, and still include some of those bequeathed by Thackeray in 1850. The rarest birds in the collection all come from New Zealand and are largely nocturnal and flightless—the Kakapo Strigops habroptila (known to early ornithologists as the owl-parrot) and the Kea Nestor notabilis (both parrots) and the Kiwi Apteryx australis; only around 80 Kakapos survive in the wild, and weighing up to 4 kg the species is the largest of all the parrots.

The museum also possesses a magnificent herbarium, comprising around 3,800 dried and pressed plants; these date mostly from the 1830s and were collected by the Revd William Hincks, but with contributions from over 130 other botanists. Most of the specimens were collected in Yorkshire, and came to Eton via Philip H. Carpenter who taught science at the school from 1877–91. Hincks left his herbarium in England when he was appointed the first Professor of Natural History at the University of Toronto in 1854 (an appointment sometimes rather unkindly attributed to the fact that his brother was Premier of Canada at that time), beating none other than the great T. H. Huxley for the post. However, Canada’s loss was Charles Darwin’s and Eton’s gain, since Huxley became a staunch proponent of the former’s theory of evolution by natural selection (earning the nickname of ‘Darwin’s Bulldog’), and was in 1879 appointed a Fellow of Eton by the Royal Society with the objective of reforming the school’s scientific curriculum; the museum’s present location, to which it moved in 1895, is largely due to the reforms initiated by Huxley.

The museum also displays page 197 of the original MS folio of Darwin’s magnum opus On the Origin of Species (1859) in...
William Stearn Bibliophile

William T. Stearn (1911–2001) rose from unpromising beginnings to become, in the words of his Telegraph obituary, ‘the doyen of British botanists’. He was bookish from an early age, in spite of a paucity of books in his childhood home. On leaving school he worked in Bowes and Bowes, the Cambridge antiquarian booksellers, in order to help support his widowed mother and younger brothers who were in a dire financial position. In his lunch hours and evenings he studied plants, already an obsession, and was given informal access to the Cambridge Botany School which enabled him to publish 24 botanical papers during this period.

At the age of 22 he became Librarian to the Royal Horticultural Society, and later explained that this appointment at such a young age, with no formal qualifications, was a sad legacy of the Great War: ‘All those who should have had the job were dead.’ In 1953 he was appointed to the scientific staff of the Natural History Museum, London (NHM), working mainly on the Flora of Jamaica, and remained there until his retirement in 1976. He was President of the Linnean Society of London 1979–82, and received honorary doctorates from the Universities of Leiden, Cambridge and Uppsala.

An expert on Linnaeus, he was the author of some 499 publications, including Botanical Latin which on publication immediately became the standard work, a definitive monograph on the genus Epimedium, a biography of John Lindley, the official history of the NHM and a book on botanical illustration co-authored with Wilfred Blunt.

During his long life he became friends with many well-known plant enthusiasts, not least E.A. Bowles, which led to an enduring friendship and occasional botanical collaboration, and the botanist and bibliophile Norman Douglas Simpson. Simpson’s large and comprehensive botanical library was an inspiration to Stearn; in addition, Simpson gave him a number of beautiful books, knowing they would be both used and treasured.

Stearn’s personal library in his house at Kew was a source of great pleasure as well as factual information. Some of his books were given or bequeathed to him; others he bought when he was young with whatever money he could muster. He spent countless happy hours poring over his books, often examining their illustrations with a hand lens and marvelling at the artists’ accuracy.

Dr Margaret Stearn

With acknowledgements and thanks to the curator, George Fussey FLS. The museum is open to all without charge on Sundays, 2.30–5.00pm and at other times by arrangement with the curator—t: 01753 671288 or e: etonhm@etoncollege.org.uk

It may seem unfeeling to disperse a lifetime collection, but it is the fate of the great majority of personal libraries. And yet, such dispersals feed the libraries of the next generation. The sale will be held by Bonhams, Banbury Road, Shipton, Oxford, OX3 1LU on Tuesday 25 March 2014. The catalogue will be available on line some three weeks before the sale; printed copies will be available free to Fellows on application; email Carole.Park@Bonhams.com

© The Linnean Society of London

LEFT A student examines one of the Museum’s many fossils © Eton College

Below William Stearn © The Linnean Society of London

2 Pulse
The 7th International Conference on the Biology of Butterflies will be hosted by the Department of Biology, University of Turku, Finland, during 11–14 August 2014, with Niklas Wahlberg in collaboration with Marjo Saastamoinen (University of Helsinki) acting as the principal organisers. The conference will showcase presentations in all fields of biology with butterflies as the focal study organism. Morning sessions will cover four major topical issues, and two parallel afternoon sessions will accommodate contributed talks, with a field trip planned to visit the famous Melitaea cinxia metapopulation in the Åland archipelago.

These conferences have propelled many participants into the "butterfly biology limelight". Indeed, they have been a fertile ground for budding researchers to meet many famous biologists in fields as diverse as ecology, evolution, systematics and genetics, leading to new collaborations. Subsequently, these events have propelled our scientific understanding of these most charming, charismatic and endlessly fascinating insects—the butterflies. If you want to be part of that ongoing tradition, please register for Turku 2014: http://nymphalidae.utu.fi/icbb2014/

The conference was the perfect opportunity to launch some of our newly developed Primary resources, designed to reflect the National Curriculum from September 2014. These include the first posters in an historically-based series aimed at students aged 7–11, featuring Carl Linnaeus and Charles Darwin, with others to follow that will feature Mary Anning and Alfred Russel Wallace.

We also launched the first of our new Linnean Loan Kits, which can be tailored to fit specific Primary-level Key Stages. The four initial Linnean Loan Kits will cover classification, life cycles, plants and habitats. Containing a variety of practical apparatus including a digital microscope, acrylic coated biological specimens and a time-lapse camera, the kits aim to bridge the gap in practical Primary biology where some school budgets are unable to go. Each kit features a teacher pack offering a range of cross-curricular ideas for indoor and outdoor activities. The Society will post the kits out to UK schools, and the only cost to the teacher is the postage. We hope that the kits will inspire Primary teachers with and without a biology background to get creative and try more hands-on science lessons. Due to the rising level of interest in the kits, we’re currently looking into funding in order to expand both the number of kits and the topics covered.

Hazel Leeper and Leonie Berwick
education@linnean.org

Primary Focus
Launching new Primary resources in 2014

In early January the Education team manned ‘The Biology Stand’ at the Association for Science Education (ASE) Conference in Birmingham in conjunction with organisations like the Society of Biology, Biochemical Society and the British Ecological Society. We engaged with hundreds of teachers, technicians and students, explaining the work of the Linnean Society of London and offering our resources for their classrooms. Many teachers are unaware of the existence of the Society so making contact with educators is vital. As part of the ‘The Biology Stand’s’ annual Biology in the Real-World lectures, the Society sponsored a talk by Dr Rich Boden FLS, Lecturer in Environmental Microbiology and Biotechnology at Plymouth University. Dr Boden’s fantastic and well-received talk ‘Life without Light’ covered his work exploring Movile Cave, Romania, and the natural history of this fascinating and unique ecosystem.
In 2010 the Andrew W Mellon Foundation provided the Linnean Society of London with funding to conserve the 26 volumes of Sir James Edward Smith’s personal and scientific correspondence. With the three year project now complete, Project Conservator Helen Cowdy shares some of the highlights from working on this collection.

A brief re-cap
Now assessed, treated and back at the Wolfson Archive at Burlington House, the Smith Correspondence letters were originally housed in tightly bound volumes that were causing damage. After careful removal from the bindings, each letter was cleaned and repaired; once treated, the letters were set in guards and divided into handmade fascicules, offering support and greater access to each letter with minimal handling.

Archivist Tom Kennett ran a detailed cataloguing project alongside the conservation of the letters, and the imaging of the correspondence was undertaken by Digitisation Project Officer Andrea Deneau who created extensive metadata records for the entire collection. The images will be available via our Online Collections later in 2014.

The archive’s biological material
Though the conservation team focused closely on the paper, inks and seals, one of the more unusual aspects of the collection was the biological material that accompanied some of the letters. Many archives have incorporated the specimens into their main collections, so it was a real treat to find these objects almost exactly as they were originally sent. Most of the specimens within the Smith Correspondence are pressed and dried plants, however there are also lichens and fungi and a couple of unusual surprises. The specimens have been attached to the letters in variety of ways including direct adhesion, strapping, sewing and a selection of folded and adhered paper enclosures.

Why send specimens?
Many of Smith’s correspondents could be considered impassioned pioneers who brought back specimens new to science. They range from taxonomists and field botanists to some well-known plant hunters and scientists (including Joseph Banks), as well as many dedicated amateur naturalists. Interestingly, a common theme at the time was research into the practical applications of how plants could be used. Historical collections like this are a great resource, giving the locations and habitats of species at the time of collection.

Treating the specimens
Leaving specimens within an archival collection can carry certain concerns—staining from the specimen, damage caused by adhesive, damage to the specimen through flexing of the paper and even loss of specimens due to inadequate housing. The original bindings and weight of the volumes had caused the fragmentation of some specimens, however most were in surprisingly good condition and it was decided that keeping them in situ was the best solution for the collection. Removal of the packets and specimens could cause more harm than good, particularly to those directly adhered to the paper. The longevity and welfare of this collection was always a priority, particularly as it is a working collection; advice was sought from our Collections staff, curators, external conservators and collection managers as necessary. The main issue with the specimens in the Smith Correspondence is not whether to retain them with the letter, but how to retain them. Even with the best of intentions, removing items from a collection to be housed elsewhere (no matter how securely) is removing valuable information which may end up getting lost in the collection stores.

During most conservation treatments documentation and photographs are taken before, during and after treatment. The specimens were removed and retained separately if possible during treatment, so
the letter could be cleaned and repaired. Any loose fragments have been housed in custom envelopes made from 100% un-buffered cotton paper, chosen for its pH neutral qualities. Wherever possible the original packets were opened so the contents could be digitised and accessed by future researchers.

Each treatment differed according to how the biological material was attached to the letter. It was important to ascertain how best to house the specimen, and how the letter itself was affected by the specimen’s inclusion. The majority of the specimens needed very little treatment other than minor repairs to their packets, or the insertion of an extra envelope made from a very light-weight, calendared Japanese paper; other specimens were given extra support where necessary to prevent loss or breakage. In all cases we considered the condition of the letter; if the specimen had caused tears, holes or excessive staining it had to be decided if removal from its original position and placing it into a fragment envelope was the best solution.

**Those ‘unusual surprises’!**
Three particular specimens stood out as being decidedly unusual and charming. Two were sent by the same correspondent, Sir Thomas Frankland 6th Baronet (1750–1831), landowner, MP and botanist. Frankland’s first specimen was a blue paper packet which was adhered underneath a letter and labeled, ‘Beetles, Carabus striatus, Kirby Mss, near vulgaris’. Inside the packet were, unsurprisingly, two beetles (of the species *Pterostichus melanarius* (Illiger 1798)), widespread throughout the UK), one mainly intact and the other damaged. The packet had retained all the legs and pieces of fragmented carapace. The damage may have been caused by the weight of the volume, though it is more likely that it was damaged in the post. A new, lightweight envelope insert was created to house the beetles within it, providing easy removal for inspection and another layer of protection.

The second of Frankland’s specimens was part of a series of correspondence regarding Woodcocks, and the particular letter contained two woodcock feathers, one each from a male and female bird. The letter, poorly folded, could not be opened fully without further damage to the paper and the strips that secured the feathers were coming away where the adhesive had dried and become brittle. The letter was repaired and lighter weight Japanese tissue strips, adhered with wheat starch paste, were used to replace the feathers in their original positions, ensuring the fold could be easily opened and the feathers removed if necessary.

The final set of specimens was from George Don [1764–1814], a prolific plants-man who collected in Forfarshire, Scotland. He sent Smith many specimens, including three lichens adhered to rectangular cards, which on closer inspection were home-made playing cards with diamonds, spades and hearts stamped on the reverse. They were all inside a modern envelope (Linnean Society stationary) and had consequently suffered little damage with only a few small fragments present. There is strong evidence that the Don correspondence had undergone treatment at some point in an attempt to preserve the specimens, with more modern materials being used; unfortunately some of the original housing has been removed. In response, the cards were carefully cleaned and re-housed in custom fragment envelopes which were then adhered alongside their accompanying letter.

To conclude
All the treatments carried out are sympathetic to each letter and the collection as a whole. The Correspondence of Sir James Edward Smith contains so much historical and scientific value, it was all too easy to find ourselves engrossed in the letters with conservation tools poised! Our next major project is the conservation of the Linnaean manuscripts, so keep an eye on PuLSe for future articles from our conservation team.

Helen Cowdy
Project Conservator
helen@linnean.org

Many thanks to all those who made this project possible, particularly to Lucy Gosnay and Sam Taylor who were valued and hardworking members of our conservation team for this project. The condition of this collection is now greatly improved and once again available for continued research. To access this amazing resource please contact our Librarian, Lynda Brooks (lynda@linnean.org) to arrange a visit.
In the year 1735, Carl Linnaeus (1707–78) used a small printed almanac as a diary. This velvet-covered volume, entitled Almanach På Åhretefter Iesu Christi nåderika Födelse 1735, is kept in the Linnaean Manuscripts collection at the Linnean Society of London. On the blank interleaves and opposite the printed date of the almanac, Linnaeus recorded the day’s events.

This is one of the few genuine autobiographies we have from Linnaeus—all the other ones he carefully crafted and reworked with a view to publish them. The 1735 almanac, by contrast, is delightfully unaffected and candid.

With St Valentine’s Day in recent memory, we thought it would be diverting to share some rather romantic information about Linnaeus.

In the early days of the year, Linnaeus faithfully recorded the courting and wooing of his future wife, Sara Elisabeth (Sara Lisa) Moraea, the 18-year-old daughter of Falun’s town physician, Dr Johan Moraeus.

As described by Wilfrid Blunt from the diary, “On 2 January he waited on her, dressed to kill in his famous Lapland costume, and the following day he took advantage of the absence of her parents to call again. Other visits followed, besides meetings at the houses of mutual friends. On 16 January, he spent the whole day with her, proposed and was accepted.

Dr Moraeus, after his own experiences as a medical man, was not at first pleased with the idea of his daughter marrying a doctor; nor was her mother, who had probably hoped that the world would consider a better match. In the end, however, they capitulated, on the understanding that the marriage should not take place for three years and that Linnaeus should abide by his plan to go abroad. So rings were exchanged and the customary Vow of Fidelity was written by Linnaeus, after which a month was spent in visits to friends and future relations and in the preoccupations of young lovers.” (Blunt, 2001: 80).
In 1848, Dr Wallich published a translation of the almanac in the Proceedings of the Linnean Society. Here are Linnaeus’s entries concerning his courtship, efficiently conducted between 2 January and 19 February:

**January**

*O! Ense nitori miserere mei!*

2. called on Sara Lisa, in a Lapland dress.
3. the same, absentibus parintibus.
10. called on S. L. M. and had a little fun.
13. called on S. L. M., and at Kougagården,
and on me assessor Moreaus.
15. Christmas party at the provost’s at Fahlun with S. L. M.
16. dinner at secretary Neuman’s.
   N.B. a day of immortal commoration, of final settling with S. L. M.
19. Lars Peter dined at a party at engineer (Konstmäster) Trygg’s. Betteed two tankards of rhenish wine that there will be a christening (barnsöl) in 4 years.
20. wrote to J. Moreaus, S. S. about S. L. M.
   Explicitly solicited (her hand).
21. wrote to S. L. M.
22. calledon [S. L. M.], gave annulum.
23. reciprocation by mother-in-law
27. called on S. L. M. and had a little fun.
29. called on S. L. M. concluded Floram Dalekarlicam.

**February**

8. in the evening (with) S. L. M.
9. in the afternoon at a frolic at Morbygden.
10. in the evening (with) S. L. M.
11. with S. L. M. until X o’clock in the evening.
12. took leave of father-in-law.
13. took leave of S. L. M., who wrote the oath.

Linnaeus left Falun the following day, but before leaving he wrote a poem bidding farewell to his fiancée. “A Lover’s Farewell” expresses, in “seven very trite stanzas” (according to Blunt), the anguish of leaving her for such a long time.

Linnaeus journeyed south and spent a few weeks with his family, before taking leave of them on 15 April 1735. Days later he sailed for the Continent back to Sweden in June 1738, and became formally engaged to Sara Lisa. They were married a year later, in June 1739.

Isabelle Charmantier and Tom Kennett


Farewell to Samantha Murphy

The Society bids a fond farewell to Events and Communications Manager Samantha Murphy who has moved on to pastures new. Sam joined the Society early in 2012, and hit the ground running with the set up of our new website. She was instrumental in co-ordinating the build of the site and was always available to offer advice to staff members when setting up their own pages—she was our web guru! She also took on the responsibility of setting up our web-based Fellows’ Portal, launched in 2013—a great leap forward for the Society.

Many Fellows will have had the opportunity to meet or speak to Sam over the past two years. Always friendly, helpful and engaging, Sam was the efficient engine behind the set up of all of our events. Her passion for taking the Society forward was bookended by her professionalism and eye for detail. Taking control of the Society’s social media presence, Sam recognised the important role it plays in information sharing and modern scientific debate and managed to boost the Society’s online followers to 1,300 on Facebook and over 2,000 on Twitter. Sam’s (and the team’s) topical and informative updates and responses have been the key to this success.

Though she will be sorely missed by her colleagues and friends at the Society, please join us in wishing her all the best for her new role with the Royal Society of Chemistry.

Welcome to Tom Simpson

However, all is not lost! The brilliant Tom Simpson will be joining us from his role as ‘Nature Live’ host at the Natural History Museum, London, where he has developed, designed and hosted public events for visitors. Tom will take up the Events and Communications Manager mantle in early March, and we’ll reveal more about him in the next issue of PULSe, but until then please offer Tom a warm welcome. For events email events@linnean.org

Manuscripts Specialist Isabelle Charmantier

Isabelle Charmantier gained her PhD in history of science from the University of Sheffield in 2008, focusing on a 17th-century French manuscript of ornithology (1660). She then took up a post-doctoral position at the University of Exeter (2009–13), working with Dr Staffan Müller-Wille on a Wellcome Trust funded project entitled ‘Rewriting the System of Nature: Carl Linnaeus’s Use of Writing Technologies’. The aim of this four-year project was to reconstruct the ways in which Linnaeus assembled, filed and cross-referenced information about plants and their medicinal virtues, through the detailed study of Linnaeus’s manuscripts. She has taken part in a pilot project to edit and digitise a few of these manuscripts, which will go online in the next few weeks. On 1 December 2013, she joined the Linnean Society to catalogue Carl Linnaeus Pater and Filius’s manuscript collections, which were listed by Professor A. H. Uggla in the 1930s and 1940s but have never been properly catalogued.

FORTHCOMING EVENTS 2014

19 March
Evening Meeting
18.00–19.00
Biodiversity and Climate Change: Connecting the past to the future
Speaker: Prof Camille Parmesan
Plymouth Linnean Lecture @ the University of Plymouth
Visit www.linnean.org/events for more details

20 March
Evening Meeting
18.00–19.00
The State of Nature in the National Trust
Speaker: Dr David Bullock
No registration required

2–3 April
Two-day Meeting
Collections-based research in the genomic era
Joint meeting with the Centre for Ecology and Evolution
Registration essential www.linnean.org/events

17 April
Evening Meeting
18.00–19.00
The Darwin Initiative: Simple formula, amazing impact
Speaker: Prof Stephen Blackmore CBE FRSE FLS
No registration required

1 May
Evening Meeting
18.00–19.00
Type specimen of Asian elephant, lost and found
Speaker: Prof Adrian Lister and Prof Tom Gilbert
No registration required

23 May
16.00–19.00
Anniversary Meeting
Please check our website for other events not listed here