The LINNEAN SOCIETY of London

# The Linnean

NEWSLETTER AND PROCEEDINGS OF THE LINNEAN SOCIETY OF LONDON

Volume 32 Number 1 April 2016

**Joseph Sidebotham:** From calico printing to Lepidoptera

**In Correspondence:** Alexander von Humboldt

**George Anderson:** Botanist and early FLS

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.

Cover image: White prominent *Leucodonta bicoloria*, taken by Joseph Chappell



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# The Linnean

*Newsletter and Proceedings of the Linnean Society of London*

Contents



## Editorial



This issue comes with a reminder that content for *The Linnean* comes largely from you, the Fellowship. Although we do have sections updating you on the various activities within the Society, the 'feature articles' fundamentally come from our Fellows. We welcome contributions offering historical information on the Society, its past activities and its members, narrative accounts of participation in expeditions and similar activities and more general articles on what you think other Fellows may be interested in, arising from your own experience and expertise in the field of natural science. Correspondence is another way to share your opinions on content, our programme of meetings, publications or other activities. I am happy to respond informally to anyone who may want to check on whether their planned submission is likely to be accepted. Don't hold back!

Working at a desk above the Library Reading room prompts me to remind Fellows that it helps the Library staff if you can let them know beforehand of any planned visit. There are occasional days when one of the Library staff may be working offsite and this, together with staff holidays and sick leave, may impact on staff availability in the Reading Room. An email or phone call beforehand will help to avoid any disappointment, and the material you need will be ready and waiting.

Lastly, I am happy to do my 'annual report' to confirm that the former Editor, Professor Brian Gardiner, is enjoying his retirement: we keep in touch and I hope he may be submitting something for a future issue.

**Gina Douglas**, *Editor*
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Society News

After a somewhat frustrating autumn—following the sudden news of the demise of our website provider—it is wonderful to be launching the new and much more functional website during spring 2016, thanks to the intensive efforts of our new Events and Communications Manager, Alicia Fernandez. Our events page is now back up and running, so please do register your interest. The ongoing BioMedia Meltdown (BMM) project, funded by John Lyon's Charity and run by Ross Ziegelmeier, has completed its first competition on the topic of evolution and is now moving onto ecosystems. A brilliant celebration evening for the BMM Evolution Competition winners was held in early March, and we look forward to the Ecosystems Competition awards evening in September.


December saw the launch of the Society's AdoptLINN initiative, led by Deputy Librarian Elaine Charwat and Conservator Janet Ashdown—find out more in Library News overleaf.

The Society itself of course provides grants for scientific research, especially in the field of taxonomy and systematics, and has made two awards from the Anne Sleep fund (one for a comparative study on Japanese and European fossil amphibians, and the other to investigate tri-trophic interactions between *Ficus*, fig wasps and their parasitoids in Oman), plus an Appleyard fund award to investigate Antarctic Tardigrades.

## Events

The latter part of 2015 showed record audiences at events, including the lively debate, chaired by Paul Jepson and organised in collaboration with LERN (London Evolutionary Research Network), on how far evolutionary history should inform species conservation, the hugely entertaining Christmas Lecture on myth and magic in jewellery by Geoffrey Munn OBE FLS and the

**A packed house waits for Tom Kennett's Founder's Day lecture on Sir James Edward Smith**

fascinating Founder's Day lecture by James Edward Smith's biographer, Tom Kennett, speaking on the man himself, with nearly 140 audience members.

Cameraman John Aitchinson

2016 got off to a great start with Zerina Johanson's erudite lecture on how her studies on fossil fishes have informed the evolution of vertebrate reproduction, while the regional lecture in Cardiff by Adrian Lister reviewed new radiocarbon evidence and megafaunal extinctions. The lunchtime lectures on 19th-century pioneers of Nepalese biodiversity, by Mark Watson, on hedgehogs by Pat Morris, and on the challenges of wildlife filming in the Maasai Mara and Antarctica by cameraman John Aitchison, drew large audiences, as did Aljos Farjon's evocation of ancient oaks in the English Landscape. The Society's collaboration with Plymouth University continues, with Nick Davies delivering an illuminating lecture there, entitled *Cuckoo: Cheating by Nature*, in which he showed how escalating host defences have selected for remarkable cuckoo trickery. The Society was delighted to host the London Regional Final of *Debating Matters,* which is organised by the Institute of Ideas and supported by the Wellcome Trust.

Following the considerable success of the Courtyard Societies collaborative tours around the Royal Academy's Cornell exhibition, a further initiative, celebrating International Women's Day, focusing on inspirational women of the various Societies, was held on 8 March. Together with our oversubscribed open Treasures Tours, this clearly demonstrates the public appetite for exploring natural history and the Society.

Please keep an eye out for forthcoming events—the Anniversary Meeting in May will host the launch *The Lord Treasurer of Botany*, the definitive biography of Sir James Edward Smith—be sure to purchase your copy. Come and engage with a wide community for the BioBlitz in London's Brompton Cemetery at the end of May, when naturalists and volunteers will be surveying all the accessible parts of this historic and ecologically interesting site with a view to identifying as many living species as possible within a 24-hour period—how many species do you think will be found? And don't miss the upcoming lunchtime lecture on dinosaurs in Crystal Palace and the evening meeting on when Antarctica was green, both in June, or the Conversazione and two-day scientific meeting on grasses in July.

**Elizabeth Rollinson**, *Executive Secretary*
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Two generous donations enabled the Society to acquire two fine portraits of Lady Pleasance Smith, wife of the Society's founder James Edward Smith. The sleuthing of Tom Kennett, who is currently putting the finishing touches to his definitive new biography of James Edward Smith, led to the discovery of the whereabouts of these much talked-about portraits. Painted by John Opie (1761–1807), they depict Pleasance Smith (née Reeve) as a gypsy and a match girl respectively. The gypsy portrait was originally owned by George Coventry, 6th Earl of Coventry (1722–1809).

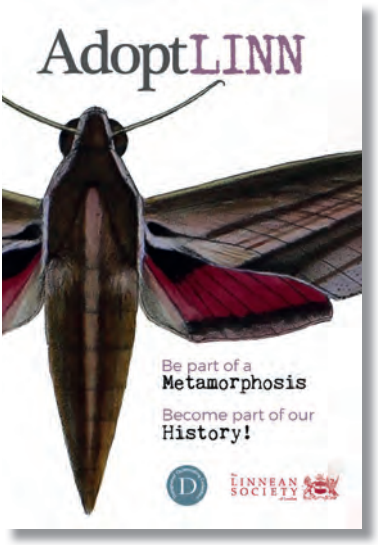
John Opie's 'Gypsy' portrait of Pleasance Smith

The gypsy portrait was unveiled on Founder's Day during Thomas Kennett's talk on his forthcoming Smith biography, *The Lord Treasurer of Botany*. It was felt that the Society was the natural home for these portraits, which capture a very personal aspect of Smith's life. A suitable space for hanging these special portraits is currently being considered, and they will definitely help to redress some of the gender imbalance prevalent in the Society's portrait collection!

Coincidentally, the Society was generously offered another artwork with a close connection to its history. The sculptor Jane Robbins donated a characterful bust of Alfred Russel Wallace.

## AdoptLINN

In December 2015 the Society launched its adoption scheme, AdoptLINN. As well as promoting the Society's collections, the scheme will allow us to fundraise for vital conservation work, and, most importantly, it will invite Fellows and the general public to have a more personal connection with the collections.




The Society's specimens, books, manuscripts, artworks and artefacts are of huge historical and scientific importance, having achieved 'Designated Status' in 2014, as awarded by Arts Council England. Our AdoptLINN initiative aims to support the preservation and use of these outstanding collections in research and outreach.

The initiative is a great opportunity to be part of a metamorphosis—and to become part of the Society's history. For more information, visit www.linnean.org or contact the Library (library@linnean.org).

## Digital Projects

The Linnaean Manuscript Project, funded by the Andrew W Mellon Foundation was completed at the end of 2015 and has joined the Society's other collections online. The entire collection has been conserved and re-housed, with digital images produced by Digitisation Officer Andrea Deneau and accompanying metadata and research produced by Manuscript Specialist Dr Isabelle Charmantier.

The Society is thrilled to be part of the READ (Recognition and Enrichment of Archival Documents) project, a cutting-edge EU-funded project to enable researchers world-wide to access and work with a huge number of complex archival documents. The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 674943 [https://ec.europa.eu/programmes/horizon2020/en/what-horizon-2020]. It will run from January 2016 to June 2019. The Society will play a supporting but important role in working towards a shared goal—unlocking complex handwritten material in archival collections, automatically indexing digital images of text, and teaching computers how to assist in the transcription of handwritten text using Handwritten Text Recognition (HTR) software.

The ultimate goal of the READ project is to invite curators, archivists, researchers and the public in general to be part of a technological (r)evolution, and help to unveil materials that may have hitherto remained untouched.

## Visitors and Exhibitions

We were delighted to welcome a descendant of physician and botanist Francis Boott (1792–1863), whose portrait hangs in the Executive Secretary's office. Lucy Hardcastle, Boott's mother-in-law, wrote and illustrated what is said to be the first accessible or 'popular' book on Linnaean botany in Britain. The Library also welcomed the Cambridge Society of Bibliophiles. A group of rare book enthusiasts, they said they felt like "kids in a sweetshop". It's heartening to know that the Society's collections can impress even seasoned connoisseurs.

> "The Cambridge Society of Bibliophiles said they felt like 'kids in a sweetshop'."

The Library team also contributed (in the form of expertise and images) to an exhibition in Jakarta in August called *125,660 Specimens of Natural History*, a curatorial project about colonial collections and the environmental transformations they produced, creatively enlightening the work and journeys of Alfred Russel Wallace.

**Lynda Brooks**, *Librarian*
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**Elaine Charwat**, *Deputy Librarian*
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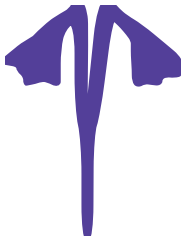
# Donations

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:*

Kathryn Aalto
Glenn Benson
Professor RJ Berry
British Ornithologists' Union
Lynda Brooks
John Burton
Dr Tomás Camacho
Clive Chatters
Lord Cranbrook
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Dr John van Wyhe
Dr Vaughan Southgate
Swedish Collegium for Advanced Study
John Tennent
Dr Carsten Weerth
Andrea Wulf

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**.

## Not Latin, but Latinate

If I may add a belated footnote to Professor Per Jørgensen's postscript (On the Gender of Tree Names, *The Linnean* 31(2) April 2015), we should indeed stop referring to Linnaean nomenclature as Latin, since strictly speaking it is not; but equally 'scientific names' would surely be too vague. Let us be correct, cut out the lazy shorthand of 'Latin' and call the nomenclature what it is: Latinate.

And Linnaeus may have failed his Greek at Växjö (not Växsjö), but it seems a little too harsh to dismiss him as not a great linguist. As well as writing and publishing in Latin, he is described by his biographer Wilfrid Blunt as "fluent in spoken Latin if never very sound on the syntax".

**Tom Geddes FLS**
London

## Correction

### Did Captain Scott's *Terra Nova* Expedition discover fossil *Nothofagus* in Antarctica?

**Professor Bill Chaloner FLS[1] and Dr Paul Kenrick FLS[2]**

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We apologise for an error in our paper 'Did Captain Scott's *Terra Nova* Expedition Discover Fossil *Nothofagus* in Antarctica?' carried in the last number of this journal. We learnt, after it had gone to press, that we were in error in believing that the suggested record of *Nothofagus* by Scott's party was an Antarctic 'first' for that genus. The first major discoveries of fossil plants prior to this had been made a decade earlier by The Swedish Antarctic Expedition (1901–04) on the Antarctic Peninsula. Here, they recorded fossils attributable to Southern Beech in sediments of Paleocene age on Seymour Island, which lies just outside the Antarctic Circle (64°S) (Dusén, 1908; Tosolini *et al*, 2013). Edward Adrian Wilson's observations on the *Terra Nova* Expedition were made at an altitude of over 1.5 km in the Transantarctic Mountains on his descent from the Polar Plateau—very much closer to the continental interior and to the South Pole (85°S).

Our analysis shows that in the case of the Scott fossils physical evidence—or lack thereof—seems to have outweighed the documentary evidence of the notebooks, which were judged to be inaccurate in respect of the leaf fossils. This episode underlines the importance of critical evaluation of written accounts as supplementary evidence to physical collections made during voyages of discovery. Had these fossils

Seymour Island, Antarctica, with James Ross Island in the distance

returned or the Polar Party made it back alive or Wilson's short note been given the credence it deserved, this discovery could have ignited a debate about the nature of the continental interior of Antarctica and the extent of glaciation in the recent geological past.

Today, fossil leaves, wood and pollen from the Neogene sediments of the Sirius Group are recognised as among the most significant of palaeobotanical discoveries from Antarctica (Cantrill and Poole, 2012). They provide a basis for palaeoclimatic interpretations that are informing debate about the relative stability of the Antarctic ice sheets.

Cantrill DJ & Poole I. 2012. *The vegetation of Antarctica through geological time*. Cambridge University Press, Cambridge, 480 pp.

Dusén P. 1908. Über die Tertiäre Flora der Seymour-Insel. *Wissenschaftliche Ergebnisse der Schwedischen Südpolar-Expedition, 1901–1903*, 3(3): 1–27.

Tosolini A -MP, Cantrill DJ & Francis JE. 2013. Paleocene flora from Seymour Island, Antarctica: revision of Dusén's angiosperm taxa. *Alcheringa: An Australasian Journal of Palaeontology*, 37(3): 366–391.

# Joseph Sidebotham's Lepidoptera

**Laurence M Cook Hon FLS[1] and Dmitri V Logunov FLS[2]**

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Early in the 20th century the Manchester Museum received collections of Lepidoptera, Coleoptera and herbarium sheets from the heirs of Joseph Sidebotham (Logunov 2010, 2012). Sidebotham was born in 1824 and died in 1885. In many ways he epitomised the successful Manchester businessman, made rich by the cotton industry but also public spirited and having broad interests and apparently boundless energy. His father had owned and managed a cotton mill but died when Joseph was very young. He followed the same profession, becoming, after short attachment to another firm, a senior partner in a calico printing business which developed the use of synthetic alizarin red dyes to replace the traditional madder. He was married with six children, a supporter of the church, for some time justice of the peace and latterly owner of a substantial mansion outside the city. He was also an accomplished artist. Legacies from two cousins made it easy for him retire and follow a range of pursuits that included astronomy, photography, microscopy and natural history. He was an active member of the Manchester Literary and Philosophical Society, chairing meetings and presenting papers. His contributions in astronomy and photography have been noted by contemporaries and later commentators (anon. 1886; Hallett 1989) and especially in a memoir by a lifelong friend, the botanist and writer Leo Grindon (Grindon 1886). Sidebotham's interest in natural history led him to become a Fellow of the Linnean Society. As received by the Museum in 1919 his Lepidoptera collection was housed in a 40 and a 32-drawer cabinet containing over 1,900 species almost entirely British in origin and over 60% of the currently known total. It is interesting to consider what led a man of such diverse interests to acquire it.

In most respects the collection is conventional. Specimens are beautifully mounted but only a minority have labels. Most are set with the wings depressed so as to touch the bottom of drawers. This style of mounting existed in the UK until the 1860s, when grooved setting-boards arrived from the continent (Allen 1994). Whether it means that all or most of Sidebotham species were acquired before that date we do not know. The arrangement starts with butterflies and includes series of like individuals in a number of species that were rare in Britain at the time and were almost certainly

depleted by over collecting. These include 12 specimens of the Black veined white *Aporia crataegi*, three Bath white *Pieris daplidice*, 20 Large blue *Maculinea arion*, 25 Large copper *Lycaena dispar* and 12 Large tortoiseshell *Nymphalis polychloros*, victims of the Victorian urge for acquisition. Most being unlabelled we do not know where they came from. Some species do, however, tell a story. Sidebotham had ten Glanville fritillaries *Melitaea cinxia* which came from the Rev. JF Dawson, from their only British locality in the Isle of Wight where, even in 1824 when they were first discovered, they were uncommon (Salmon 2000). Most of the eight Queen of Spain fritillaries *Argynnis lathonia* and one of the Bath whites are labelled as taken by 'G. Parry' near Canterbury and three of the continental fritillary *Argynnis niobe* are labelled 'W. Wigan'. Both these names were associated with the practice of rearing continental insects and selling them as British (Salmon 2000). On this evidence, Sidebotham probably bought many specimens without much discrimination. He certainly obtained some material from auctions and other sources; the single spurge hawk moth *Hyles euphorbiae* cost him £2, which, in relation to average earnings, would be the equivalent of over £1,000 now[1]. The hawk moths interested him, perhaps because there had been 'good years' for immigration from the continent of species such as the Spurge, the Silver striped *Hippotion celerio* and the Bedstraw *Hyles galii,* which may occasionally have bred in Britain for a few generations (South 1909).

Further examination reveals two other aspects that are of more interest, one of them innovative and one somewhat contentious. It is evident both from his writing and from the collection that Sidebotham was interested in variation within species in relation to specific distinction. In the second half of the century, there was a heightened interest in species limits and variation on the part of both supporters and opponents of the idea of evolution. Sidebotham (1869) recognised that the questions where species end and what constitutes a variety were both difficult to answer and topical. He conducted an extensive breeding programme using the Magpie moth *Abraxas grossulariata* to investigate how much variation could be generated and showed that, although extreme forms were obtainable, none approach the appearance of its nearest British congenor *A. sylvata* (anon. 1870; Sidebotham 1870a). This is a somewhat biased example to

**Fig 1** One of the drawers from Sidebotham's cabinet showing variation in wing patterns in the Magpie moth *Abraxas grossulariata*

Images: Supplied by Cook and Logunov, photos taken by Logunov and Rispin

choose; the magpie moth was well known to be variable in wing pattern and there are species that approach it more closely in other parts of the range. However, the exercise illustrates a problem in which he took an interest, and the collection contains a representative range of varieties (Fig 1). His remarks on the results show that he recognised that the variation was largely inherited, and that broods with extreme parents tended to revert towards the mean for the species (Sidebotham 1870a).

Breeding and exchange of these variant forms in the 19th century led to their playing a part in the origins of evolutionary genetics. Most are determined by single segregating genes, usually recessive in expression. Doncaster and Raynor (1906) discovered sex-linkage studying one of them. Variation in pigmentation within and between phenotypes of a yellow mutant was investigated quantitatively by Onslow (1919; Robinson 1971), showing the expression of a major gene to be influenced by modifiers at other loci. This led to the recognition by EB Ford that gene expression was therefore selectable. Surveying all the available information and making some informed guesses GE Hutchinson (1969) concluded that one of the rare dominant forms was present at a frequency of about one in a million, presumably the mutation rate, while the dozen or so identified recessive phenotypes have frequencies between one in ten thousand and a few per cent. This level of polymorphism in a recessive could be maintained by mutation if selection against it was slight. The typical pattern is aposematic and variation probably has relatively little effect on fitness.

The effect of environment was under investigation when Sidebotham took several thousand Garden tiger moth larvae (*Arctia caja*) and raised them in separate lots on different food plants (Sidebotham 1870b). There was no effect of diet on colour over two generations, but he did note that hind wing colour differed between stocks collected at different locations. Specimens in his collection illustrate variation from almost white forewings to almost black, and some differences in hind wing colour (Fig 2). The inheritance of wing patterns has still not been properly investigated (Robinson 1971); more recent work has been on other aspects of genetics (Anderson *et al* 2008).

**Fig 2** Variation in the Garden tiger moth *Arctia caja*

Another enterprise made use of his skills as an illustrator. In association with fellow microscopist John Watson he made detailed examination and drawings of lepidopteran wing scales, especially those found in males and now known to disperse pheromones, referred to at the time as plumules and battledore scales and now as androconia (Sidebotham 1865b; Watson 1865, 1868, 1869). They vary in form between taxa. The intention, never completed, was to produce several hundred descriptive plates as an aid to identification and as further proof of the fixity and distinction of species. The two authors criticise HW Bates for supposing that several species of Heliconiinae, South American Mùllerian mimics, may have had a common origin (Watson 1868). They are, they assert, undoubted species with none of the plumules showing an "undecided form"; "it is much more probable and philosophical to suppose that an intelligent Creator placed His creatures in such localities and conditions as suited their various requirements… ". Similar emphasis on the clear difference between species as distinct from the evident variability within species was made by Sidebotham's contemporary and fellow entomologist TV Wollaston, for example in his critical review of *The Origin of Species* (Anon. 1860; see Cook 1995).

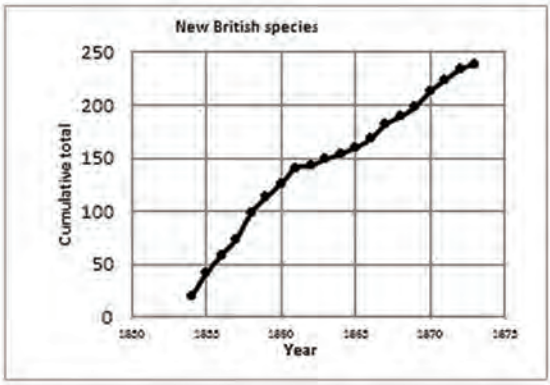


**Fig 3** Cumulative number of species of Lepidoptera new to the British list for 20 years from 1854 noted by HT Stainton and HG Knaggs in *The Entomologist's Annual*

The richness of the British fauna was being uncovered during Sidebotham's time. At the beginning of the 19th century, the Linnean Society Fellow AH Haworth listed 740 species of British Lepidoptera (anon. 1802). This more than doubled to 1,838 in the next two decades (Stephens 1824), then rose more slowly to 2,160 in 1938 (Heslop 1938) and 2,982 by 2000 (Bradley 2000). Figure 3 shows the mid-century pattern of growth as recorded in Henry Stainton's *Entomologist's Annual*. It is natural to be interested in rare or previously unrecorded species, but there was always the question whether a new find was truly established. Kloet and Hincks (1945) list 2187 as British Lepidoptera, plus 46 that are "extinct, immigrant or doubtful". The pinned material and the numerous short notes published by Sidebotham show that he sought unusual material himself and shared his experiences with entomological associates, especially RS Edleston, a fellow calico printer and Joseph Chappell, an employee at Sir Joseph Whitworth's engineering works. A range of rare moth species was noted, together with rare plants (by Sidebotham) and by all three, rare and unusual beetles. Coleoptera were often collected by Chappell, Edleston or a few others but reported by Sidebotham (e.g. see anon., 1865). Some of these alleged sightings seemed to raise questions about location of the find, the possibility that they record a species later extinct in Britain or are

Images: Supplied by Cook and Logunov, specimen photo by Joseph Chappell

perhaps outright forgeries (AA Allen 1967a,b). As to the last, in the words of David Allen (1994: p. 170), "fraudulence battens on ignorance", and unfortunately it was not uncommon among natural history dealers at the late 19th century "to the extent of importing quantities of insects at a cheap rate from France and Germany and claiming that they had been caught in Britain". Morris & Johnson (2005) concluded that some of the Coleoptera records were indeed deliberate frauds, adding "Although Sidebotham is not unique in being responsible for the only records of some of 'our' rarest weevils, he introduced ..... far more species currently regarded as extinct or dubious than any other contemporary coleopterist." With respect to Lepidoptera there is no reason to allege deliberate misrepresentation although one case, at least, is surprising. This concerns the White prominent *Leucodonta bicoloria* (Fig 4). Sidebotham (1874) says that in about 1862 it was found in Staffordshire by a Mr Joseph Smith, where it was later also taken by Chappell. Two specimens in his collection are credited to Chappell, 1865 and 1866. The moth occurs in Europe in mature woodland, a specimen was captured in Devon in 1880 (South, 1909), probably a stray immigrant, and it is seen occasionally in southwest Ireland. Apart from that, it gets into the British lists on the basis of Sidebotham's reports alone.

**Fig 4** Specimens in Sidebotham's collection of the White prominent *Leucodonta bicoloria,* taken by Joseph Chappell in Staffordshire

With over a thousand species present, those loosely referred to as micro-Lepidoptera form an important part of the collection and are the section to which most of the new British species were added. They are beautifully prepared, identified and carefully arranged. In some cases there are also mounted larvae, pupal cases or leaves with larval mines (Fig 5). Most are represented by series of individuals. Sidebotham published no notes on these and one is left to wonder how he came to assemble them, what proportion he caught, or bought or received as presents, and what their significance was for him. The Manchester Museum has a very extensive holding of micro-Lepidoptera, of which the Sidebotham collection is only a small part (Logunov 2010, 2012). In addition, 2,289 specimens come from the collection of Lord Walsingham (1843–1919) made up to 1928 (Report, 1927–28).This was obtained from the Natural History Museum in exchange for a single specimen of another local oddity, the Manchester


**Fig 5** One of the original drawers of microlepidoptera showing the care taken over display, including pre-adult stages and leaves with characteristic mines. Lower right: the holotype of *Elachista holdenella* Stainton, 1854 (Elachistidae, now, a junior synonym of *E. atricomella* Stainton, 1849)

moth *Euclemensia woodiella*. Several dozen specimens of that insect were collected in 1829 by a local Manchester man Robert Cribb just north of the city. For various reasons, only three now exist and it is otherwise quite unknown (see Logunov 2011; it was the subject of another note by Sidebotham, 1884, and there is a Wikipedia entry). Although Sidebotham did not have specimens of the Manchester Moth he may have hoped to obtain them. In his collection a space reserved for *E. woodiella* (Fig 6) contained a photograph made by Sidebotham himself of two specimens which originally belonged to the Manchester Museum. Both are intact, while the specimen now in the Museum is badly damaged and lacks its abdomen (Logunov 2011: fig. 1). The other main


**Fig 6** The photograph of the Manchester Moth (*Euclemensia woodiella*) made by J Sidebotham and placed in the collection instead of the specimens which he did not have. Lower right: the reverse side of the photo with Sidebotham's signature and the date

Images: Supplied by Cook and Logunov, photos taken by Logunov and Rispin

collection of micro-Lepidoptera is 20th-century material assembled by local specialist Hugh N Michaelis (1904–95). It was donated in 1964 and is carefully labelled with much local material dating from 1910–1960 (Logunov 2010). These and part of Sidebotham's material are presently being pooled with other British Lepidoptera at the Manchester Museum in new stainless-steel and dust-proof cabinets, providing an exceptionally comprehensive reference source. The larger of Sidebotham's cabinets containing macro-Lepidoptera will remain intact as a historical museum artefact: viz., an example of the personal collection of a Victorian Aurelian. Some other features of Sidebotham's life, interests and setbacks are covered elsewhere (Cook 2015).

We are grateful to Philip Rispin for his help with the collection and the illustrations.

## NOTE

[1] See www.concertina.com/calculator/index (accessed 10 March 2015)

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Image: Humboldt (WikiCommons)

# Alexander von Humboldt in the Correspondence of Sir James Edward Smith

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## Introduction

While in London, on the occasion of my formal admission as a Fellow of the Linnean Society in the third week of December 2015, I took advantage of the services of the Society's library with the collaboration of Librarian Mrs Lynda Brooks. As my present research concerns Alexander von Humboldt´s travels and works on New Granada (present-day Colombia), I found a number of interesting and previously unacknowledged references on the relationship of English academicians with the Prussian traveller. I therefore proceeded to try and compile these references, in the hope that this would stimulate the interest of readers, historians and scientists in tracing an important chapter in both British science and the Linnean Society of London.

Other authors have mentioned the relationship of Alexander von Humboldt (1769–1859) with English naturalists such as Charles Darwin (1809–82), as included in the recent work of Andrea Wulf, *The Invention of Nature* (Wulf 2015), where she masterfully describes the reciprocal influence of two pillars of western science.[1] Previous to Wulf, almost every Humboldt biographer has mentioned *en passant* his relationship with English academic authorities such as Darwin (1809–1882), Charles Lyell (1797–1895) and Joseph Banks (1743–1820). Among these brief references, the work of French zoologist and historian Jean Théodoridès (1926–99) published in *The British Journal for the History of Science* and entitled 'Humboldt and England' (Théodoridès

**Fig 1** Alexander von Humboldt

1966) shows the principal relationships of Humboldt with British scientists and high status officials and aristocrats. In his detailed article, Théodoridès starts with the first recorded relationship of the 11-year-old Prussian with England´s intellectuals in the name of Daniel Defoe,[2] whose *Robinson Crusoe* (a descendant of the German lineage of the Kreutznaers) was translated into German in 1779 as *Robinson der Jüngere* by his tutor Joachim Heinrich Campe (1746–1818), and ends with a letter from Joseph Dalton Hooker (1817–1911) to Charles Darwin in 1881, where he asks him whether he should "call Humboldt the greatest of scientific travellers, or only the most accomplished or more prolific" (Théodoridès 1966). The recorded answer of Darwin is unambiguous: "I believe that you are fully right in calling Humboldt the greatest scientific traveler who ever lived."

A series of six recorded visits of Alexander von Humboldt to England are referred to by Théodoridès, starting in June 1790 in the company of Georg Forster (1754–94). This first, still in the 18th century, was followed by a second trip to London in June 1814 with his brother Wilhelm, by invitation of the King of Prussia, Frederick Wilhelm III (1770–1840). Three years later, in October 1817, Humboldt visited London for the third time, now with a close friend, the French astronomer and mathematician François Arago (1794–1853). The following year, Humboldt crossed the English Channel with French zoologist Achille Valenciennes (1794–1865), in a further "attempt to obtain permission to travel [to India] on one of East India Company´s ships" (Théodoridès 1966). A fifth visit to London took place in the months of April and May of the year 1827, on his way back from Paris to Berlin where he was called by Frederick Wilhelm III. The sixth (and last) Humboldt´s visit to London occurred in 1842, when he travelled with the King of Prussia´s successor, Frederick Wilhelm IV (1795–1861), for the christening of the Prince of Wales, the future Edward VIII (1841–1910). It was during this brief 13-day stay in England that Humboldt met Charles Darwin at the house of the well-known geologist, paleontologist and naturalist, Sir Roderick Murchison (1792–1871).

## Humboldt in Sir James Edward Smith´s Correspondence

In spite of a thorough investigation made by Théodoridès in 1966, there is a significant absence of information his article on the relationship of Humboldt with the Linnean Society of London, of which he became a Foreign Member in 1818 (Bennett 1859). The French historian included an appendix with both 'Humboldt's memberships in British Scientific Societies' (see Table 1) (Théodoridès 1966)


**Fig 1** Letter from Alexander von Humboldt, London, to James Edward Smith, at Mrs Wiggins', Craven Hill, Bayswater, near London (23 June 1814)

Images: Letters © The Linnean Society of London

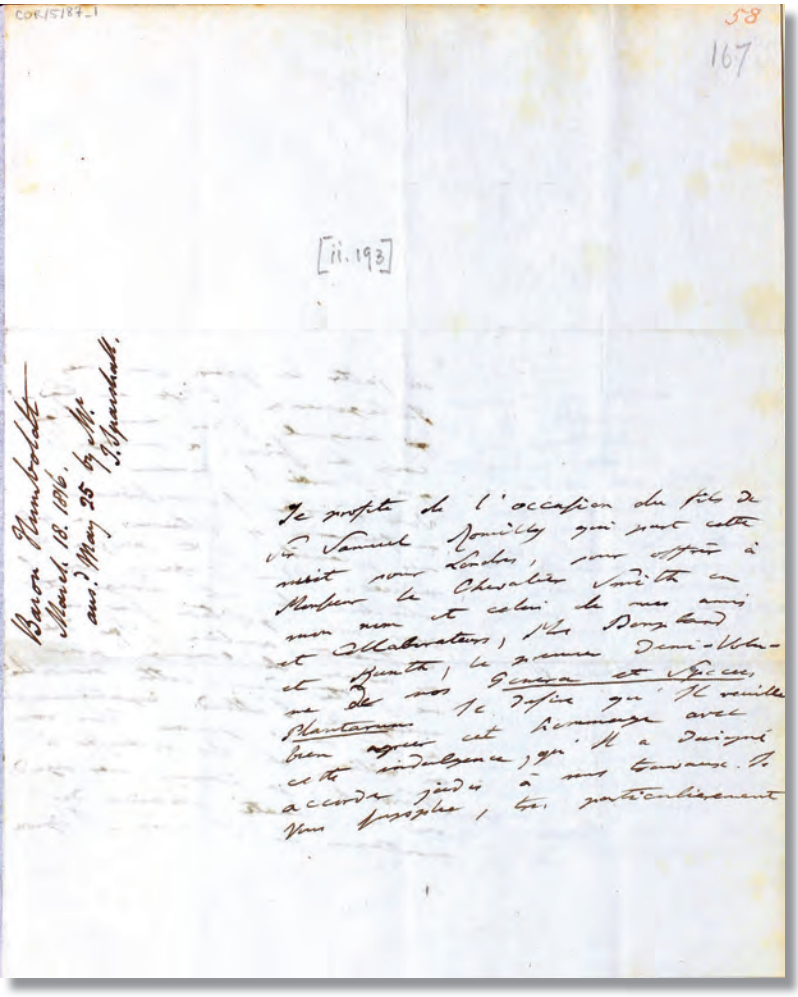

**Fig 2** Letter from Alexander von Humboldt, Paris, [France], to Sir James Edward Smith (18 March 1816)

in which he fails to mention the Linnean Society, and 'Humboldt's British Correspondents', where he lists 93 individuals with no trace of Sir James Edward Smith—one of the founders and first President of the Linnean Society—who was one of Humboldt's correspondents (confirmed in a collection of 27 original letters kept in the Library of the Society at Burlington House). Twenty-two of these letters were written by different naturalists to Smith (1759–1828) from 1801 to 1825—half of which were signed by Aylmer Bourke Lambert (1761–1842)—two by Smith to Alexander MacLeay (1767–1848) in 1817 and 1818, and three by Alexander von Humboldt to Smith in 1814 and 1816 (Figs 1 and 2). More detailed information and the complete transcription of Humboldt's letters are given in Table 2: Supplementary Material online.

The acceptance of Alexander von Humboldt as a Foreign Member of the Linnean Society was announced two years after his March 1816 letter to Smith, in which the Prussian naturalist enquired about the admission of his botanist friend Carl Sigmund Kunth (1788–1850)—as well as his own:

> *Si le Chevalier Smith n´est pas tout à fait mécontent du travail botanique de Mr Kunth je le supplie de l´agréger un jour à la respectable Société Linnéenne. Je demande cet honneur pour mes amis, je saurais l´apprécier pour moi meme (sic).*
>
> I beg you to add [Kunth] one day to the respectable Linnean Society. I ask this honor for my friend, and I would very much appreciate it for myself.

Humboldt remained a Foreign Member of the Society for over 51 years, until his death on 6 May 1859.

As is customary in most academic and non-academic societies, members are saluted on both their admission and passing. Humboldt was honored with an obituary on 24 May 1859, just over a year after Charles Lyell and Joseph D Hooker submitted two unassuming manuscripts entitled 'Extract from an unpublished Work on Species' by Charles Darwin, and 'On The Tendency of Varieties to Depart Indefinitely from the Original Type' by Alfred Russel Wallace (1823–1913), first read at the Society on 1 July 1858 and published in the Society's *Proceedings…* in August that same year.

By a twist of fate, Humboldt´s obituary was included in another publication of the Society, the collected *Notices of Deceased Members* (London: Taylor and Francis, 1859, pp 40–43), just *à la ligne* of Aimé Bonpland´s (1773–1858) obituary, thus reuniting a second historic binomium. The actual words of the late John Joseph Bennett (1801–76), Esquire, Secretary of the Linnean Society of London and Fellow of The Royal Society, read as follows:

> I had written the last sentence [of the preceeding Aimé Bonpland´ s obituary]—one as it would appear of melancholy foreboding—on the morning of the day on which the evening papers brought us the sudden and unexpected intelligence of the death of Baron Alexander von Humboldt, the friend of Robert Brown [Scottish botanist and FLS (1773–1858)], the still more intimate friend of Bonpland, and the oldest survivor of that generation of inquirers into nature, who commencing their investigations before the close of the last century, have continued them through more than half of the present. This event completing the muster-roll of illustrious names of whom death has deprived us during the past year, has come upon us so suddenly and so recently that I must entreat the pardon of the Society if I fail to pay a fitting tribute of respect to the memory of one so eminently distinguished, not only in the sciences which we specially cultivate, but in every science connected with the great and comprehensive study of nature in its widest sense. To attempt, within the short space of time which I could command, to give the merest outline of his labors and of his merits, would be in the highest degree presumptuous. I feel too, that the task of doing justice to the character of so great a man will naturally fall to hands far abler than my own; and to those hands I cheerfully resign it. I will therefore only add that Alexander von Humboldt was born at Berlin on the 14th September, 1769, was elected one of the eight Foreign Associates of the Academy of Sciences of the Institute of France, in the place of Cavendish, in 1810, became a Foreign Member of the Royal Society in 1815, and a Foreign Member of the Linnean Society in 1818, and died at Berlin on the 6th of May in the present year, in the 90th year of his age. (Bennett 1859)

## Conclusion

The translation of the simple quote of one of Humboldt´s cited letters to "Chevalier" Smith, already given above, suffices to show the importance of remembering his links with the Linnean Society of London. Further conclusions, to be drawn from this forgotten correspondence between Alexander von Humboldt and English naturalists, will help to reveal the impact of these interactions on the scientific developments of the 19th century.

**Table 1**. Humboldt's memberships in British Academic Societies and Institutions as published by Jean Théodoridès in the *British Journal for the History of Science* in 1966, omitting his 1818 Foreign Membership in the Linnean Society of London.

| Date | Society | Position |
|---|---|---|
| 9.12.1815 | Antiquarian Society of Scotland, Edinburgh | Honorary Member |
| 6.4.1816 | Royal Society, London | Fellow |
| 31.5.1817 | Geological Society, London | Foreign Member |
| 15.4.1819 | Royal Medical Society of Edinburgh | Honorary Fellow |
| 24.6.1824 | Royal Society of Literature, London | Honorary Member |
| 4.12.1824 | Royal Asiatic Society, London | Foreign Member |
| 11.5.1827 | Medico-Botanical Society, London | Honorary Member |
| 15.5.1827 | Royal Horticultural Society, London | Fellow |
| 16.7.1830 | Royal Geographical Society, London | Foreign Hon Member |
| 1.9.1831 | Zoological Society, London | Foreign Member |
| 16.8.1836 | Royal College of Surgeons, London | Honorary Member |
| 9.2.1837 | Botanical Society, Edinburgh | Honorary Member |
| 9.3.1838 | Statistical Society, London | Foreign Member |
| 23.1.1839 | British and Foreign Aborigines Protection Society, London | Honorary Member |
| 18.4.1843 | Literary and Philosophical Society, Manchester | Honorary Member |
| 24.5.1843 | Philosophical Society, Cambridge | Honorary Member |
| 7.4.1853 | University of St. Andrews | Doctor of Laws |
| 21.4.1858 | Medico-Chirurgical Society, Edinburgh | Honorary Member |

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## Notes

1 Two successive writings in *The Linnean* by Tim Berra, FLS and Giovanni Cristofolini, FLS (volume 31, Nos. 1 and 2), point out a list of recognised and unrecognised influences or predecessors on Darwin´s thought about the history of evolutionary ideas. I would add Alexander von Humboldt in the second list, as Darwin forgets him and only mentions Goethe and Von Buch, both in his inner circle. Andrea Wulf, in her cited book, concludes that "Darwin was standing on Humboldt´s shoulders" both as an explicit influence as a naturalist and traveller and an implicit predecessor in evolutionary ideas (*Ibid.*, chapter 17: "Evolution and nature"). Also: Baron, Frank. "From Alexander von Humboldt to Charles Darwin: Evolution in observation and interpretation" *Internet Zeitschrift für Kulturwissensdhaften*, 17. Nr. February 2010. http://www.inst.at/trans/17Nr/7-8/7-8_baron17.htm

2 It is worth noting here that Sir James Edward Smith´s maternal great-great-grandfather, Jeffrey Kinderley, "was a particular friend of Daniel Defoe and gave him shelter when he suffered persecution". See: Margot Walker. *Sir James Edward Smith*. Leeds: W. S. Maney & Son Ltd, 1988, p 1.

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Bennett, J. "Obituary notices of deceased members". London: Taylor and Francis, 1859, p. xlviii. See: *Linnean Society of London—Presidential Addresses 1826–1873*, volume 93(421): 061

*The Linnean Collections* at The Linnean Society of London. http://linnean-online.org/cgi/search/simple?screen=Search&order=&q=humboldt&_action_search=Search

# George Anderson FLS (1773–1817): Botanist, Early Fellow and Officer of the Linnean Society

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## Birth and Life

George Anderson was born at Monkshill farm, Aberdeenshire on 25 December 1773, the fourth of 13 children of James Anderson of Cobbinshaw (1739–1808). His mother was Margaret Seton (1749–88), heiress of George Seton of Mounie, a cadet branch of the Setons who laid out the classical 17th-century gardens at Pitmedden. After his father died, James Anderson moved to Monkshill Farm to improve 1,300 acres rented from the Udny estate. (James Anderson was a lesser-known figure of the Scottish Enlightenment.) While George was still a boy, Dr Anderson moved to Coates near Edinburgh, then to Cotfield at Leith. The eight surviving sons received an excellent classical education and grew up in an intellectually stimulating environment.

Alexander, the eldest, inherited Mounie, assuming the name Seton in 1812 to satisfy the terms of his succession. However, he spent his working life in the City of London with the West India merchants, Wedderburn, Webster & Co. The other sons followed occupations which took them to North America, Australia and India: John studied wood engraving in the Newcastle workshop of Thomas Bewick. By 1794 George had joined Alexander in London, lodging with their father in Hatton Gardens during 1795 and 1796 while gaining business experience with Wedderburn, Webster & Co.

But George had to earn his living. Trade Directories for 1802–03 name him in partnership with one Alexander Oswald as a merchant and insurance broker, at Goodman's Fields and two other London addresses. In 1805 he was a partner with George Harrison Eades and two others. The following year their names were joined with that of Edward Banks of Butterley Park. An insurance policy from 1809 for premises at Hays Wharf described Anderson and Eades as "merchants and wharfingers".[1] That same year he married a cousin, Anne Ogilvy, a sister of brother Alexander's wife, and a son was born a year later.

By then, he was a Fellow of the Linnean Society of London, elected in 1800.[2] The Society, founded in 1788, included commercial horticulturists as well as gentry who

could afford to devote their time to their botanical interests. In 1807, eldest brother Alexander was also elected a Fellow but his membership was short-lived and ended in 1809. On 7 May 1811 George was elected to the Society's Council, on which he served until 1814, auditing its accounts in 1813.

During the early 1800s George took out a lease on 30 Canterbury Square, a residential property off Dean Street in Southwark, near London Bridge and within easy reach of the City and central London. It was close to riverside business premises at Bridge Yard Wharf, also opening off Tooley Street. Brother John, now working in London, engraved a pictorial stamp for him with his name, '30, Canterbury Square', a view of St Paul's Cathedral and appropriate botanical embellishments.[3] George retained this property throughout his life but it did not survive the construction of London Bridge Station which opened in 1836. It was convenient for business purposes and attending meetings of the Society, the Horticultural Society and the Society of Arts in London.

Two more sons were born in 1813 and 1814, and were christened at St Olave's, Southwark. By 1810 George had acquired another property with a large garden and glasshouses at West Ham in Essex, at that time an attractive rural village. This probably accommodated his family. Here he had space for hothouses and cultivating exotic as well as indigenous plants he had collected, purchased from nurserymen, or obtained from other botanists. He also assembled a herbarium and amassed an impressive library. Yet it was for his salicetum—or collection of living exotic and native living species of *Salix*—that he became best-known.[4]


**Fig 1** *Rubus suberectus*, described by Anderson, from JE Smith's *English Botany* (1826)

Why West Ham? There were family connections. In 1807 his ailing father moved from Isleworth to a small house near West Ham church. At this time the area was popular with gentry who had business in the City. There were many large houses with gardens and good transport to London by a daily mail coach service. There were commercial nurseries such as James Gordon's, acknowledged as one of the best in Britain.[5] The low-lying land was suitable for the cultivation of the many varieties of willow which especially interested him.

By now George was actively following his botanical interests leaving his partner to mind the business so it was not surprising that in

1810 “Anderson, G. and Eades, G.H. of Tooley-steet, Merchants” were gazetted bankrupt.[6] Clearly it was to the Linnean Society and his plants that George devoted the most time and effort, making numerous collecting trips all over Britain. He was also writing, describing a new species of *Rubus* (*Rubus suberectus*) (Fig 1) and preparing his monograph on *Paeonia* (Fig 2), as well as supplying the Society’s founder and President Sir James Edward Smith (1759–1828) with eight herbarium specimens (now in the Linnean Society’s JE Smith Collections: see Table I, Supplementary Material online) and *Salix* specimens to William Borrer and others.[7] Smith described them in *English Botany*, naming one *Salix andersoniana*.[8] George also published in the Horticultural Society’s *Transactions*.[9] He entertained fellow botanists who included the American Frederick Traugott Pursh (1774–1820), temporarily resident in Britain, and Professor Franz Carl Mertens of Bremen (1764–1831).[10] George Anderson is frequently mentioned in contemporary taxonomic literature (see Appendix 2, Supplementary Material online): *Opuntia, Crocus, Ajax, Ganymedes, Ribes, Tulipa, Opuntia, Rosa, Anemone, Narcissus* and the grape-fruited citron are named in these texts: many refer to material originating from his garden at West Ham.

**Fig 2** *Paeonia moutan* (now *Paeonia suffruticosa*) formed part of Anderson's monograph on *Paeonia*

## Barbados and Brazil

George’s passages to Barbados and Brazil were probably arranged through his brother, a member of Lloyds with connections in the shipping world. George signed his will 22 March 1815 and probably sailed soon after Waterloo. The trip would have involved several months’ absence from his family and business.

Some years earlier, his disaffected brother John, although on the brink of a promising career as a wood–engraver, decided to emigrate to Botany Bay. He left England (1803) on the *Argo*, but John jumped ship in Rio in 1804 in spite of having been promised a grant of land when the *Argo* reached the colony.[11] He died in obscurity at an unknown place in West Africa in 1807.[12]

Why did George embark on this difficult journey? Its main purpose was probably to try and find out more about the fate of his brother, although he undoubtedly used the

opportunity to botanise and visit Rio's famous Jardin Botanico. Visitors to Brazil were officially recorded, but entries for 'Anderson' clearly refer to different persons.[13] The sales catalogue for George's library lists a copy of Griffith Hughe's *Natural History of the Island of Barbadoes* (1750) but there were no texts about Brazil (see Appendix 1, Supplementary Material online). It is significant that there are minimal references in contemporary literature to any botanical activity in Brazil compared with Barbados.[14] When Professor Mertens visited George in West Ham, he gave him plants from Barbados and they discussed its botany, but Brazil was not mentioned. Was Barbados an incidental stop on a voyage for which Brazil was the main destination? Wedderburns owned slave-run estates in the West Indies including Jamaica, but none in Barbados. George is not mentioned in the Barbados records or *The Barbados Mercury and Bridgetown Gazette.*[15] George probably returned to England before the end of 1815, his name still listed in trade directories. Whether it was before or after his wife died (27 September 1815) is not known, but there is no hint in family correspondence of the problems which would have arisen had this happened while he was away. In late December 1815/early 1816, brother Robert gave up his indigo plantation in India and settled nearby at Stratford to educate his sons.

I make no apology for including an account of the visit of Professor Franz Carl Mertens, a member of the Bremen scientific community, to West Ham during the winter of 1816 as it gives insights into George's attractive personality (see Mertens, Carl, 1844):

> Mr Edward Forster invited me to a lunch meeting of mostly bankers and merchants where I saw his substantial collection of willows together with two other excellent experts on this genus who had been invited – George Anderson and Bicheno. ... Afterwards I spent an evening with George Anderson, a very well–informed and upright person at his villa, talking about his stay in Barbados, with an inspection of the plants he had brought back with him, of which he [gave me] several, we looked forward to examining his collection of living Salices, which covered a large piece of ground, on the following day, but in the night there was a hurricane, and a strong rain storm carried on for more than half the following morning, so that we could do very little and had to limit ourselves to a comparison of his dried specimens. It was a bit better after lunch, so Mr Anderson was able to [give] me a rich collection of fresh specimens. At 8 o'clock we got into his gig again and hurried into town. Mr Anderson is an excellent driver even though he always drives with his glasses on.
>
> ... today, very early, I drove to Chelsea with Mr George Anderson in his gig, to see his namesake gardener Anderson [William, 1766–1846] of the Hospital Garden. He [William] first entertained us with an excellent breakfast and then gave me a present of several highly welcome plants… From there we went to see Messrs Lee and Kennedy in Hammersmith, the foremost commercial gardens in Europe. … the friendly Mr Lee who was taking us around, gave me thriving specimens for my collection. I received so much I had to refuse further gifts be-

> cause neither I nor friend Anderson could carry any more and even so we had not yet seen half of his collection. We packed our gig almost full so we looked like farmers on our way to market. —From there we drove to the King's Garden at Kew. We were able to feel less indignant about the well known lack of generosity of this garden, which is so abundantly provided, with all the known world's healing plants, as this time we had been so overladen with presents from Messrs Lee and Kennedy. I got out my address [card] for Mr Aiton, the manager of the gardens; but he was absent, as they say—and a low-ranking garden assistant took us round. Full of wonder we looked at everything. When at last we found ourselves on a path where several petals, leaves and twigs were strewn about, torn off by the previous night's storm and I wanted to pick up one and put it in my file, the gardener protested vociferously and claimed Mr Aiton would not approve, that coming into the hands of several people, rare foreign plants would become common. This made me so indignant that I called out to Anderson 'Let's leave this shit-hole'.

His son added: "this upright gentleman, whom Mertens grew very fond of, had an accident 14 days after his [Mertens] departure. He fell out of his gig and broke his neck."

Many of the leading periodicals and magazines of the day published death notices about the tragic accident, the *Gentleman's Magazine* (1817, i, 92) describing Anderson as a "man of genius, erudition and deep botanical research, his death is a severe loss to the scientific world". In the posthumous *Paeonia* monograph Joseph Sabine mentions the "merits and goodness" of his friend and collaborator.[16] Three days after the accident Smith himself wrote to Alexander Macleay to condole him on Anderson's death, hoping that neither his paper on *Paeonia* nor his willow collection would be lost.[17] George seems to have been universally liked; he was active in raising money for the destitute family of George Don senior, fellow-Scotsman and one of his many friends and collaborators.[18] When the executors wound up Anderson's affairs it emerged that a business partner, Charles Laing, had been acting improperly, perhaps even fraudulently, so that his assets hardly covered his debts, even though the grand sale of over 2,000 items in his important library extended over eight days.[19] The lease of the Southwark property was advertised, also "a quantity of rare narcissi, crocuses and other bulbs, which belonged to an eminent botanist, lately deceased; put up in packages for private collectors, with lists". [20,21] After settling his estate there were insufficient funds for bringing up the three small boys who were sent up to Scotland to their maternal grandfather, the Reverend Skene Ogilvy. Alexander Seton assumed financial responsibility, later starting them in suitable careers. The eldest, John (1810–85), aged six at the time, went on to have a distinguished career in India in the Honourable East India Company's 17th (Bombay) Native Infantry.[22]

## *Herbarium Specimens*

Some scientific names of plants used during the lifetime of George Anderson have been revised, but discussion is outside the scope of this biography. According to Des-

mond (1994) and earlier authorities, herbaria at Oxford and Bristol hold his material.

## *Linnean Society*

In 2015, the Linnean Society's Smithian Herbarium became available online, with images and metadata. The eight herbarium sheets bearing with the name of George Anderson (Fig 3) are shown in the Supplementary Material online in Table 1 (www.linnean.org).

**Fig 3** *Salix andersoniana* from the herbarium of JE Smith at the Linnean Society

## *Bristol*

The existence of Anderson's material at Bristol is first mentioned in 1984.[23] How did the Bristol City Museum & Art Gallery obtain it? George's eldest son, John (1810–85), Lt Colonel in 17th Native Infantry, retired to Elgin in 1855, and eventually moved with his wife to Clifton. In his will John's father bequeathed "all my books and specimens & what immediately pertains to them, to what so ever of my sons first arrives at the age of twenty–one …".[24] John, the sole survivor, was the recipient of his father's patrimony. He (or his wife's family or her executors) gave the sheets of specimens to the Bristol Philosophical Institution, of which he was perhaps a member during his Clifton period, although there is no record of an Anderson donation. The collections of the Institution were taken over by the Bristol Museum in 1893. Register entries (1939) list seven sheets of British species collected by "Mr G. Anderson", namely "*Salix phylicifolia, S. alba c. vitelliana* (Linn), *S. fragilis* subsp. *decipiens* Hoffm., *S. fragilis* (Linn), *S. alba x fragilis*, *S. purpurea f. lambertiana, S. stipularis* Sm.", but no dates or provenance were noted.[25] They were destroyed when the Museum was bombed during World War II.

## *Oxford*

J Lanjouw and FA Stafleu (1954) were the first to identify Oxford University's Fielding Herbarium as a repository of material associated with George Anderson, in the herbarium assembled by Miss CE Palmer and donated by her to the Curator, George Claridge Druce, in 1907. Druce included George Anderson's name in the list of her more important collectors in her obituary notice.[26]

Examination of the *Salix* sheets revealed one ambiguously labelled "*Salix Flaccidifolia*, Stanmore 1816 Dickson", followed by NS (or NI) in capitals, then "Anderson", the only sheet with his name among many hundreds. George Anderson probably gave it to James Dickson and it formed part of the collection which during the 1790s George

Don senior sent to Miss Palmer's ancestress, Louisa Finch, Countess of Aylesford, for her to draw.[27] Dickson's sheets are listed in Miss Palmer's notebooks.

## Conclusion

During his lifetime George Anderson was well known for his interest in willows and Smith commemorated him by the species *Salix andersoniana.*[28] George knew and corresponded with the leading botanists of his day in Europe and America as well as Britain (see Table 2, Supplementary Material online). Many mention his generosity: other Herbaria probably possess his material. Had he lived long enough to establish a reputation with more publications, especially on willows, his name would be included with the better-known botanists of his period, for his contemporaries regarded his monograph on *Paeonia* as the work of an expert.

But perhaps Joseph Sabine should have the last word. In the Society's *Transactions* he wrote:

> The Horticultural Society will long regret him; he was a most zealous promoter of its welfare, to which he contributed abundantly … by his intelligence and skill in the science which it was established to promote. His impartial consideration of, and correct judgement in, all objects of science which he investigated, rendered his society most valuable; and to these he added the mildest temper and the most obliging disposition, a mind well stored with information, and every quality which can make the possessor respected, esteemed, and beloved.[29]

## Notes

1. 'Anderson, Eades, and Co, merchants, 104, Leadenhall Street' [Holden's triennial Directory 1805–1807]: 'Anderson, Mr. 17, Dean - str. Canterbury - sq.' [Sun Fire Office records, London Metropolitan Archives: MS 11936/446/830988-9]. His brother engraved '30 Canterbury Square' on a bookstamp (note 3) before he emigrated in 1803.
2. 'Mr George Anderson of Leadenhall Street, being desirous of becoming a fellow of the Linnean Society; we the subscribers, knowing him to be a good botanist, recommend him as highly worthy of that honour and likely to be a very valuable member [signed by] Thos Markham [Treasurer], Pat Wilkie [Fellow], Alex McLeay [Secretary] 24 May 1800. Elected 15 July' [Linnean Society certificates of recommendation].
3. This imprint is on the reverse of the title page of *Clementine Reine de Sanga*: *histoire indienne* 1740 [British Museum: Viner Collection 1: 14] and is illustrated in Blackwell's (2012) catalogue of *Rare books Antiquarian & Modern* which lists 23 monographs by Dr James Anderson bound into volumes II to IV. The title pages of the first texts in volumes II and III have an imprint.
4. I have not discovered the location of George's West Ham property. Clayton's estate map (1820) for West Ham was drawn up after George's death [Archives and Local Studies Library, Stratford]. He is not mentioned in tax returns for West Ham for 1815 [Essex Record Office].
5. Gordon's nursery at Mile End Old Town was known to Linnaeus and naturalists such as Dr Solander who accompanied James Cook on his voyages [Morris D. 2000. James Gordon, Mile End's famous nursery man. *Transactions of the London and Middlesex Archaeological Society* 51: 183–187].
6. 10 April 1810 [*London Gazette,* issue 16359 April 7 to April 10: 536–537 (1810)].

7. Anderson G. 1815. Description of a new British *Rubus*, with Corrections of the Descriptions of *Rubus corylifolius* and *fruticosus*; and a List of some of the more rare British Plants. *Transactions of the Linnean Soc*iety 11: 216–226.

8. Smith JE. 1812. *English Botany* 33: 2342. Although he describes 45 varieties of *Salix* and names collectors in *Flora Britannica* 3 (1814), George Anderson is not mentioned.

9. Anderson G. 1818. An Account of a method of forcing Vines and Nectarines: practised by Joseph French, Esq. of East Hornden, in Essex. *Transactions of the Horticultural Society* 2: 246–249. Account of a Method, practised by Mr. James Mean, Gardener to Sir Abraham Hume, Bart. at Wormley, Herts, for ripening Grapes, by means of Dung-heat, under a common hot-bed frame. *Transactions of the Horticultural Society* 2: 330–333.

10. Between 1811 and 1816 Pursh was in England preparing his *Flora Americae* for publication. *Salix cordifolia* Pursh, from Labrador, was one of several species cultivated in "Hort. Anderson" *Flora Septontrionalis* 2: 611 (1814).

11. John had a copy of Berkenhout 's botanical lexicon, *Clavis Anglica Linguæ Botanicæ Linnæi* in his luggage. In 1806 he wrote to brother Alexander: 'I regret there is no good Botanist here as there are many (I dare say) hundreds of new genera here. Every other plant differs in something from all the descriptions. But my object is money & unless the Linnean Society or somebody else will pay me for it I cannot apply to it farther than as a recreation which is not enough, especially for a young botanist who must pore a long time before he is satisfied. Berkenhout's dictionary is very faulty & deficient. I wish Geo. & you would note down for me such corrections as you make in your's' [Aberdeen University Archives MS2787/5/2/5/5].

12. van der Lande VM. 2000. James Seton Anderson—an assumed identity? *Andrean* 1(6): 23. This is the first published account of the latter period of George's engraver brother's life.

13. 'ANDERSON, ALEXANDRE M; ANDERSON BENTO; ANDERSON, JOHN: ingles - negociante 26-7-1815—Inglaterra 30-9-1820—Parte p.a Inglaterra' [*Registro de Estrangeiros 1808–1822.* Rio de Janeiro 1960. Family History Library microfilm 1162487].

14. *Opuntia curassaviva*: 'In Brasilia legit amicus Dom. Geo. Anderson, nunc inter beatos'. Haworth AH. *Revisiones Plantarum succulentum,* 71 (1821). *Opuntia monocantha:* 'In insula Barbados legit Georgius Anderson FLS: anno 1815 quoque misit ad curatorem horti Chelseiani.' Haworth AH. *Supplementum Plantarum succulentarum,* 81 (1819). Grape-fruited Citron: 'June 2d 1818 Our late Member, Mr. George Anderson, observed this beautiful variety of the Citron at Barbadoes …' *Transactions of the Horticultural Society* 3: 358 (1820).

15. Harriet Price, Barbados Museum & Historical Society, 2015.

16. Sabine J. 1817. A Monograph of the Genus *Paeonia*. By the late George Anderson, Esq. F.L.S &c. *Transactions of the Linnean Society* 12: 248–90 [obituary 284].

17. Letter dated 20 January 1817 [Linnean Society: GB-110/JES/AM/124].

18. On 8 July 1814 George wrote from Canterbury Square to James Sowerby expressing concern about the death of poor [George] Don, offering to assist Drs Smith & Turner in promoting a subscription, enclosing £5. He suggested Dickson and Brown of Perth as recipients of the money 'so that it may not be vanished away' [National Library of Scotland ms 10789 ff90].

19. The catalogue for the sale of George Anderson's books on 3 June 1817 by Mr Saunders at 39 Fleet Street describes his library as an important collection formed by a scholar of wide interests [British Library Catalogue HC Hodgson]. There are few theological titles. The sale was advertised in the *Times* 3 June 1817 (see Appendix 1, Supplementary Material online).

**20.** Advertised for sale: 'a 25 year lease of 29 & 30 Canterbury Square as a capital LEASEHOLD FAMILY RESIDENCE and HOUSE ... containing numerous bed-chambers, with closets, spacious lofty drawing-room, neatly fitted-up, a large dining-room, light kitchen and yards, pantry, excellent dry wine, coal and beer cellars ... in good repair, remarkably well-adapted for a merchant of respectability ... .' [*Times* 1 February 1817].

**21.** Advertisement: 'For sale at Dickson and Anderson's, Covent Garden' [*Times* 9 October 1817]. James Dickson FLS and James Anderson were well-known seedsmen and herbalists.

**22.** India Office Records: Entry papers for officer cadets: L/MIL/9/68/431–434.

**23.** Kent DH & Allen DE. 1984. *British and Irish Herbaria an index to the location of herbaria of British and Irish vascular plan*ts, London: Botanical Society of the British Isles.

**24.** George Anderson 'Merchant & Ship Chandler' signed his will in London 22 March 1815, witnessed by his brothers Alexander and James [PROB 11/1590/360].

**25.** Date of registration: July 1939. *Herbarium B, vol.5 of Old Institution herbarium: Ba 1881–1950* has seven catalogued sheets collected by Mr. G. Anderson. I am most grateful to Ms Sam Hallett (1998) for information about the content and history of the herbarium at Bristol City Museum .

**26.** Druce GC. 1915. Obituaries. *Report of the Botanical Society and Exchange Club of the British Isles for 1914*. 48–51.

**27.** Britten J. 1908. Book notes *Journal of Botany* 46: 32.

**28.** An invalid name. The dark-leaved willow *Salix andersoniana* Sm. is now known as *Salix myrsinifolia* Salisb. [BSBI 1515].

**29.** Sabine J. 1818. An Account of seven double herbacious Paeonies, now cultivated in England. In a Letter to George Anderson, Esq. F.L.S. &c. *Transactions of the Horticultural Society* 2: 280–281.


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Mertens C. 1844. *Aerztlicher Vereine Bremen 1844: Biographische Skizzen verstorbener Bremischer Aerzte und Naturforscher. Eine Festgabe fur die zwei und zwanzigste versammlung Deutscher Naturforscher und Aerzte zu Bremen*. Bremen, JG Heyse. 336–8. (I am grateful for the translation by Mrs Joan Savory.)

In Memoriam

**Dr Peter Lawrence Forey FLS** (1945–2016): Ichthyologist Dr Peter Forey was elected as a Fellow of the Linnean Society in 1978 and was closely involved in the programme of events held at the Linnean Society and with the Systematics Association. One of the group of scientists at the Natural History Museum, London (NHM) developing the study of Cladistics in the 1980s, he was a world authority on Coelacanths. On retirement he became a very fine landscape artist. More detailed obituary notices will follow in due course—we wish to express our regret at the passing of this widely-respected scientist and appreciate his role in modern evolutionary biology.


Dr Peter Forey FLS

**Professor Jim Green FLS** (1928–2016): Sadly, news of the death of Professor Jim Green reached us just as this edition was about to go to press. He was elected as a Fellow in in 1969, served on Council twice (1975–79 & 1986–88), was Vice President from 1976–77, and Zoological Secretary from 1988–94. Links to more detailed obituary notices will follow in the October issue of *The Linnean*.

**Professor Charles D Michiner FMLS** (1918–2015): News was received of the death of Professor Charles D Michiner, Foreign Member of the Linnean Society, on 1 November 2015. Professor Michinor's work centred around bees throughout his lifetime; he published *The Bees of the World* in 2000, covering over 16,000 species. He was elected a Foreign Member of the Linnean Society in 1963.

http://biodiversity.ku.edu/entomology/news/charles-michener

https://journals.ku.edu/index.php/melittology/issue/view/439

**Dr Norman Winfrid Moore FLS HC** (1923–2015): Dr Norman Moore was elected a Fellow *Honoris causa* in 1992, in recognition of his work in nature conservation in the UK, specifically for identifying the link between organochloride pesticides and the decline in numbers of birds of prey.

http://www.telegraph.co.uk/news/obituaries/11948316/Norman-Moore-conservationist-obituary.html

http://www.theguardian.com/environment/2015/oct/28/norman-moore

http://cambridgeconservationforum.org.uk/news/norman-moore-1923-2015

Image: Dr Peter Forey © Dick Vane-Wright

# The Poetry Bug: An Anthology of Writing By Poets, Entomologists, Intellectuals, Musicians and More…


**Edited by John Tennent**

405pp., Cardigan: Parthian, 2015, paperback.

ISBN 978-1-910901-00-7

Similar to the excellent *The American Entomologist Poet's Guide to the Orders of Insects* (edited by Bruce Knoll *et al* and published by the Entomological Society of America), this eclectic anthology will be welcomed by all naturalists bitten by the poetry bug. One only needs to compare shelves filled with anthologies of bird poems with a lack of those about insects to see a clear winner emerging. *The Poetry Bug* aims to redress this long-standing bias in nature poetry anthologies.

The editor is well placed for this task. A widely-travelled entomologist, John Tennent not only deserves recognition for discovering around 130 butterfly species new to science, but also for tirelessly collecting unknown insect poems whenever they crossed his path—some by the greatest poets of all time. The anthology is illustrated by a number of black-and-white historical plates, offering a window into the history of entomology and insect collecting.

*The Poetry Bug* therefore opens up a new world of undiscovered and neglected nature poetry. Frustratingly, however, there are some limitations. Although there is some biographical information about the poets included, their names are not cross-referenced with their poems and there is no name or subject index. I was truly fascinated to spot Johann Wolfgang von Goethe in the list of poets, but with no reference to the title or first line of his poem(s), one can only hope to chance upon the right page. A lack of historical and often textual context (ie excerpts from poems being quoted without referencing the title—a case in point is an excerpt from William Blake's 'Auguries of Innocence' on p 123) may not matter much to the casual reader, but poetry geeks will be wringing their hands in despair. By contrast, the pioneering *Earth Shattering: Ecopoems* (edited by Neil Astley and published by Bloodaxe) is a good example of how poetry can successfully illuminate nature and conservation issues alongside innovative use of bibliographic discovery tools, and with rich context.

*The Poetry Bug* clearly aims to be fun and light reading—the editor asserts in his preface that humour was one of the main criteria for selecting the poems. Many of the poems, as well as the author's interspersed anecdotes, will delight seasoned entomologists and novices alike with their cleverness and sparkle. And whilst it does offer a light-hearted view of entomological poetry, one can't help thinking that there is still room to explore the subject in much more depth.

**Elaine Charwat**, *Deputy Librarian*
elainec@linnean.org

# The Linnean Society of London : Programme of Events

## May–October 2016

**6–8 May** [A]
**Three-day meeting**

### Linnean Society Meeting at the Arnold Arboretum

SPECIAL EVENT at Harvard University, Boston, Mass., US
*To register: https://linneansocietyarnoldarboretum.eventbrite.co.uk*

**24 May** [**A]
**16.00**

### Anniversary Meeting

INCLUDES **BOOK LAUNCH** FOR SMITH BIO *THE LORD TREASURER OF BOTANY*
*Registration for dinner essential: www.linnean.org/events*

**1 June**
**12.30–13.00**

### Dinosaurs in Crystal Palace Park

Prof Joe Cain, *University College London*

**16 June** [A]
**18.00**

### When Antarctica was Green: Fossil Plants reveal Antarctica's Climate History

Prof Jane Francis, *Director of the British Antarctic Survey*

**8 July** **
**16.00**

### Conversazione 2016

Taking place at the Linnean Society of London
*Registration opens in April: www.linnean.org/events*

**18–19 July** **
**Two-day meeting**

### Growing the Grass Classification: Celebration of Derek Clayton's 90th Birthday and Discussion about the Future of GrassBase

SPECIALIST GROUP MEETING—Grass Taxonomy
*To register: https://grassesmeeting.eventbrite.co.uk*

**15 Sept** [A]
**18.00**

### Plant Conservation: Now is the Time to Change our Minds

Prof Philip C Stevenson, *University of Greenwich*

**17 Sept**
**All day**

### Open House London

*The Society participates in Open House London every year, where we open our doors to the public.*

**22 Sept** **
**Day meeting**

### Title tbc

*Taxonomy and Systematics Committee Plenary Meeting*

**29 Sept**
**18.00**

### Wild New Territories

Ron den Daas

† 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**