

PULSE

Issue 9
April 2011

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

Natterjacks and Narwhals: Letters from Sir Joseph Banks

As part of the Smith Correspondence Project I have recently completed the in-depth cataloguing of the 50 or so letters from Sir Joseph Banks, renowned naturalist and president of the Royal Society, to Sir James Edward Smith, spanning the years 1786–1818.

The eminent men of the day are captured in the letters. He is amused by French botanist Charles Louis L'Héritier de Brutelle's apparent audacity, when visiting England in 1787, in bringing his draughtsman to draw "all the new plants as they come into flower, a liberality which few countries would have allowed him". Banks was so sure of L'Héritier's intention "to play tricks", that he warned he would "return his mischief upon his own head, with interest". His desire to establish Botany as a science is also evident, advising Smith to keep L'Héritier from Linnaeus's herbarium in case he finds and publishes faults in such a way as to "lower its value, which ought not to be as it must be the real standard to prove the meaning of Old Linnaeus's works".

Whilst discussing the Natterjack toad in another letter, Banks recalls his Lincolnshire childhood, when the Natterjack would cause trouble by "digging up the night mould of the cucumber and melon beds and disturbing the roots". Commenting on its mating call Banks relates that a toad in the pond of his Spring Grove home, and at least 80 yards from the house, "was so loud as to disturb the ladies in the parlour for some days". Most amusingly he recalls that the Welsh naturalist Thomas Pennant "hated a toad so much that he shrank even from the picture of one".

There is an overriding sense of excitement in the classification of the natural world. In March 1800 Banks mentions that a large narwhal has washed up on the Lincolnshire coast, "an animal worse figured in our books than probably any other". Banks welcomes the chance "to correct our former errors and profit by the wreck of the sea".

Food also seems topical; in fact it is surprising how frequently it features in the correspondence. More than half the letters include thanks to Smith for supplying turkeys and an 1803 letter of Banks's



The Natterjack toad, *Epidalea calamita*

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starts with an amusing anecdote of having only just discovered that the "box of excellent biscuits" he has been eating for the past month was from Smith.

Wider concerns intrude, sometimes violently, within the letters. In 1803, Banks writes of his "alarm [...] lest Bonaparte should invade", but that though an attack "is inevitable, the sooner it comes the better, we are united hand and heart to oppose it, [and when it has failed] we shall then have peace and quiet". Later, during the 1815 Corn Laws riots "the windows & door of [his] house & the hall table & chairs were all destroyed". His wife and sister are praised for having "nobly sat by [him] without one expression of extravagant fear, till the door was burst open, [he] then requested them to retire, which they did".

The letters illustrate Banks's interests in natural history, science and politics, and the close, enduring friendship that existed between these two great men. Banks's own correspondence, including some of Smith's replies, is now at the Royal Botanic Gardens, Kew.

Thomas Kennett, Cataloguing Archivist

Message from the Executive Secretary

I've just come away from a photo-shoot with Leonie, for the photo accompanying this message; it is good to welcome her back as Editor following her maternity leave! Standing on the gallery for the photo, I was very conscious of Sir Joseph Banks, peering over my shoulder. Those of you who have been in the Society's library will have seen the imposing portrait of him, and Thomas Kennett our Cataloguing Archivist for the Smith Correspondence has been gaining further insights into Banks's life, whilst reading his letters to Smith (p. 1). Whilst Tom compiles a detailed cross-referenced catalogue of the correspondence, Lucy and Helen are busy conserving the letters; you can read more about their work on p. 9.

Our meetings continue to be very well attended. Last year, Stewart McPherson gave a superb lecture at the Society to undergraduate and postgraduate students and has followed this with an article on carnivorous plants (pp. 4–6). This issue also contains an article by Pieter Baas, introducing what promises to be a most interesting meeting on 12 May on Rumphius's Ambonese Herbal (p. 5).

Together with other updates regarding the Society's activities, collaborations with other Societies and information about Linnaeus in Liverpool, this is another excellent issue. To return to my earlier theme of letters, the Editor would be very pleased to receive your comments, letters, thoughts and articles for future issues. Please do send them to pulseeditor@linnean.org or to the Society's address.

Ruth Temple



© Leonie Benwick

President's Greeting

Welcome to this April edition of *PuLSe* which I hope you enjoy reading. I would like to draw your attention to some excellent forthcoming meetings; on 12 May there is a day meeting at Burlington House which will address the biohistorical, botanical, medicinal and anthropological significance of Georg Eberhard Rumphius's masterpiece, *Herbarium Amboinense* and on 19–20 May the Linnean Society will be supporting a joint meeting entitled 'From Royal Gifts to Biodiversity Conservation' looking at the history of zoos, menageries and aquariums, taking place at Chester Zoo. Additionally, I would like to inform you that *PuLSe* will be 'going electronic' in the near future and will be emailed to you (please see the article on this page).



© Victoria Smith

Our varied programme prior to the summer break will, I hope, have widespread appeal and I anticipate meeting many of you in London, Chester or indeed on 16 July at the *Conversazione* in the Cambridge University Botanic Garden.

Vaughan Southgate

PuLSe is Going Electronic

As part of the Linnean Society's commitment to conserving the environment, *PuLSe* will be distributed electronically as a digital edition from the August issue (issue no. 11). In the June edition you will receive a short form asking for your most current (and constant) email address and contact details, in order to keep you updated. This form will also offer you the option to ask for a hard copy (limited numbers will be printed). Please look out for this form in the June edition!

Correction: Conversazione

Please note that the Linnean Society's *Conversazione* is to be held on **16 July, 2011** at Cambridge University Botanic Garden, not 7 July as shown in the March 2011 issue of *The Linnean*. All other details remain the same.

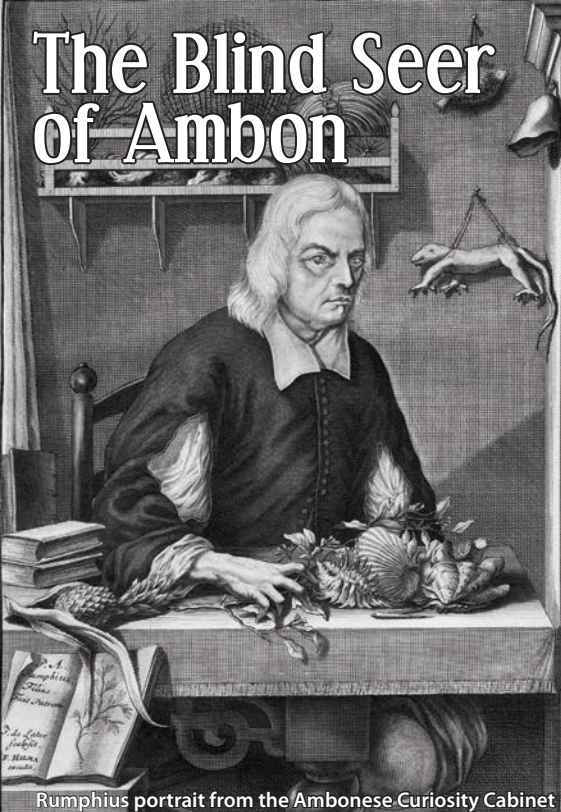


Photo courtesy Cambridge University Botanic Garden

Annual Contribution Rate

The Fellowship is reminded that subsequent to the announcement by the Treasurer at last year's Annual General Meeting, the basic annual contribution rate has gone up by £5 to £50. Those who pay by direct debit do not have to do anything as the mandates will be increased automatically. Those that pay by standing order need to inform their bankers, those that pay by cheque or card should bear in mind the increase when sending in their payment.

The Blind Seer of Ambon



Rumphius portrait from the Ambonese Curiosity Cabinet

© The Linnean Society of London

Among the great pioneers of 17th-century tropical botany one man stands out on a solitary peak: Georg Eberard Rumphius alias *Rumphius* (1627–1702). His scientific legacy—*D'Amboinsche Rariteitkamer* or the Ambonese Curiosity Cabinet (1705), mainly devoted to marine zoology, and *Herbarium*

Amboinense or the Ambonese Herbal (1741–55), a seven-volume, richly illustrated account of the Flora of Ambon and adjacent regions covering almost 1,300 species—were only published posthumously in Latin and Dutch. Their contents have been made widely accessible thanks to erudite translations and annotations by the late Prof E.M. Beekman from the University of Massachusetts in Amherst, and published by Yale University Press.

On the 4 February 2011 the English translation of the *Herbarium Amboinense* was launched in the Kampong, Miami, Florida, followed by a symposium organised by the National Tropical Botanical Garden. On the 12 May a full day symposium at the Linnean Society will celebrate Rumphius's Herbal: its author, its origins, scope and impact against the backdrop of present day biodiversity and conservation in SE Asia.

Rumphius's biography is one of adventures, of good fortune followed by the darkest adversity, of dedication to plants, animals and people, and of incredible perseverance.

Born and raised in Germany, Rumphius left his country at the age of 18, spent three years in Portugal, and like so many adventurous and brilliant Germans joined the Dutch East India Company (VOC) in 1652 to spend the rest of his long life on the small island of Ambon in the biogeographical province of Wallacea. In the first five years he was employed as a soldier and builder of fortifications in the cruel colonial wars waged by the VOC on the Moluccas; later he was a successful merchant of ascending rank. Attracted from his youth onwards to the mysteries of nature, he developed a passion for the rich zoological



Starfruit, *Averrhoa carambola* L.

A celebration of Rumphius's Ambonese Herbal

and botanical diversity of the island. At the age of 36 he wrote to the VOC headquarters in Amsterdam announcing his plans to document the biodiversity of the "*Water Indies*" and asked them for books on natural history to support his endeavours.

The subsequent genesis of the Ambonese Herbal sounds almost too unlikely to be true. After a flying start producing Latin texts and accompanying illustrations, Rumphius went blind in 1670, and had to dictate texts in Dutch to his son and assistants, relying on his memory for all the descrip-

tive detail he wished to convey. In 1674 he lost his beloved wife Susannah in an earthquake, which was followed by a tsunami later documented by Rumphius; she was also his partner in the collection of plants and ethnobotanical information and is remembered by the orchid species *Pecteilus susannae*. In 1687 fire destroyed his house in Kota Ambon and his manuscripts of the Ambonese Herbal were barely rescued. When Rumphius was finally able to send a complete set of the first six volumes by boat via Batavia to Amsterdam, the original manuscript and all the plates were sunk by the French off the coast of Brittany during one of the Anglo-French wars. Fortunately a duplicate copy had been made in Batavia by its nature-loving governor, Camphuys. It was duly copied all over again, finally arriving at VOC headquarters in 1697. Addenda (volume VII) followed in 1704, two years after Rumphius's death. The VOC Board ("Lords XVII") decided that the wealth of information on spices, medicinal plants and other botanical commodities was too sensitive (fear that competitors from Britain, Scandinavia or France might take advantage of it) and the manuscripts disappeared in the archives of the Noble Company. However, decades later they were resurrected by the botanist Johannes Burman (1707–79) who edited the volumes (partly during visits by his friend, the young Carolus Linnaeus) and published them between 1741 and 1755.

The Ambonese Herbal combines the virtues of a floristic survey, enriched with information on local uses, especially medicinal, all written in a very lively style and copiously illustrated with fine engravings. It is above all a monument to the traditional knowledge of the Ambonese people. A recent biopharmaceutical screening of plants from the Herbal has yielded a very promising antidote to the hospital bug *Staphylococcus aureus* from the atun tree, *Atuna racemosa* Raf. (*Chrysobalanaceae*). Together with the contemporary work *Hortus Malabaricus* (1678–93) by another VOC employee, Hendrik Adriaan van Rheede tot Draakenstein (ca. 1560–1624), Rumphius's *magnum opus* laid the foundation for all subsequent floras in SE Asia.

The Rumphius symposium at the Linnean Society on 12 May will cover biohistorical aspects as well as lessons we still can learn from the Ambonese Herbal for sustainable plant use and nature conservation. **For more information and registration visit www.linnean.org**



Original water colour of *Syzygium aromaticum* (Myrtaceae), the clove tree, from *Herbarium Amboinense*

Image courtesy Leiden University

A New Natural Order



A rodent caught in a *Nepenthes northiana* plant, Borneo

The theory of carnivorous plants is an idea that emerged over many centuries and through the accumulating observations and research of many of the Linnean Society of London's most prominent Fellows and contributors, including Charles Lyell, Joseph Dalton Hooker, Asa Gray, Alfred Russel Wallace, Harry Veitch, and Carl Linnaeus himself.

Many plants have long been known to produce strange leaves that capture animals. Since at least the 12th century, European



Sticky leaf of a *Drosera rotundifolia*

naturalists have marveled over the sticky foliage of native sundews (*Drosera*) and butterworts (*Pinguicula*), and noticed that the sparkling droplets of glue that line the leaves of these plants commonly capture and kill animals as large as dragonflies. These strange plants grow in wetlands and were, at first, often seen to hold magical properties by local rural communities.

From the 15th century onwards, as European nations began to explore the world and unfurl their colonial empires and trading networks, early travellers discovered increasingly more plants with strange leaves of inexplicable forms that accumulate the remains of dead animal victims. Just 78 years after Christopher Columbus first landed in the Americas, a pitcher plant (*Sarracenia*) with strange hollow leaves was illustrated and described by early naturalists Matthias de l'Obel and Petrus Pena in their 1570 work *Nova Stirpium Adversaria*. But without a systematic approach to observation or study, important details were often overlooked or not reported, and most early observers neglected to question why plants might

have developed such specialised structures or the tendency to kill animals. Most often, the plants were regarded as exotic curiosities, or were interpreted as the "work of the divine creator" without further explanation (de Loureiro, 1790).



The pitcher pl

But with the dawn of the scientific rationale, a modern generation of field botanists was born—one that would intensely question and contemplate the natural world in a new, systematic and methodical way. Referring to *Sarracenia*, the 18th-century horticulturist Patrick Collinson remarked in a letter to Carl Linnaeus in 1765 that, "many poor insects lose their lives by being drowned in these cisterns of water" Similar observations were being independently made for many other groups of animal-catching plants, including *Drosera*, *Pinguicula* and the tropical pitcher plants of Asia (*Nepenthes*).

The story changes dramatically during the 1760s, shortly after the discovery of the Venus's Flytrap (*Dionaea*) growing along the eastern seaboard of North America. On observing the jaw-like parts of the leaves of this plant dramatically snap shut, in 1760, Arthur Dobbs, the Governor of North Carolina, described *Dionaea* as a "Fly Trap Sensitive", and in 1770 John Ellis recorded that it acts as "a miniature form of a rat trap" after receiving living specimens than had been transported from the wild. Ellis corresponded with Carl Linnaeus and sent him a detailed description and diagram of the plant showing leaves that had seized an earwig and a fly. He wrote:

Nature may have some views towards its nourishment in forming the upper joint of its leaf... upon the middle of this lies the bait for the unhappy insect that becomes its prey... the two lobes rise up, grasp it fast, lock the rows of spines together, and squeeze it to death.

But Ellis's suggestion of a killer plant challenged conventional religious understanding of the order of the natural world—the doctrine of a rigid natural world, created by God, in which species are divine and stable. And Linnaeus was

All images, except Darwin's Insectivorous Plants image, © Stewart McPherson



ant *Sarracenia purpurea* ssp. *purpurea*.

a very religious man. On receiving specimens of *Dionaea* Linnaeus, who subscribed to the traditional view, wrote in a letter to Ellis dated 16 October, 1768, that the idea of an insect-eating plant was "against the order of

nature as willed by God". He later referred to *Genesis* I, 29–30 and stated that God had designed plants only for sustenance of animals and men, and that the idea of plants that could wield power over animal life was blasphemous.

Linnaeus was the most informed botanical authority of his age. He was well aware that insects are trapped on the leaves of many plants, indeed he had formally named many of the genera we now know to be carnivorous, namely *Aldrovanda*, *Drosera*, *Nepenthes*, *Pinguicula*, *Sarracenia* and *Utricularia* in his seminal 1753 work *Species Plantarum*. But he explained the trapping of animals as accidental or coincidental, and that the plants possess their unusual adaptations for different, unrelated functions. Linnaeus's respected authority overrode criticism, if any was offered, and his statements and beliefs were faithfully copied from book to book for the next century.

For the following 100 years, numerous botanists and naturalists repeatedly observed and casually speculated on the animal-killing properties of plants, but no evidence firmly supporting or rebutting the theory was offered.

Then, in the 1850s, a series of extraordinary discoveries were made during the first ascents of Mount Kinabalu, Borneo's highest peak. The British explorers and

botanists Hugh Low, Spenser St. John and Frederick Burbidge undertook expeditions to conquer the mountain, and on the upper slopes of this enigmatic outcrop, they found the largest and most spectacular animal-trapping plants of all, including a species of pitcher plant called *Nepenthes rajah* which produces traps that are larger than footballs.

These discoveries culminated in finding a drowned rat inside one of the giant pitchers of these plants, captivating the imagination of the Victorian scientific communities across Europe, thus compelling them to return to the theory of plant carnivory and rethink whether Linnaeus's dismissal of the prospect had been premature. During this time, the rise of commercial horticulture and the trade in exotic plants brought enormous shipments of highly valued tropical pitcher plants to Europe, enabling closer study.

But despite the renewed interest, one century after the publication of John Ellis's description of *Dionaea* as a flytrap, still no firm evidence had been gathered to scientifically prove the theory and show certain plants as carnivorous. It was into this continuing uncertainty that Charles Darwin stepped. During the summer and autumn of 1860, Darwin visited the heathlands of Sussex, England, as well as the nearby moorlands of Eastbourne. During these visits, he encountered the sticky red leaves of the sundew *Drosera rotundifolia* which grows abundantly across British wetlands, and he was "surprised" to notice the frequency by which insects were affixed to the plants' glue laden

leaves. Darwin had "heard insects were thus caught, but knew nothing further on the subject", and

gathered by chance a dozen plants, bearing fifty-six fully expanded leaves, and on thirty-one of these dead insects or remnants of them adhered.

Perhaps, at the time, Darwin contemplated why a plant should have evolved thus to collect dead arthropods. Certainly, he was well aware of many other insect-trapping



FIG. 4.

(*Drosera rotundifolia*.)

Leaf (enlarged) with all the tentacles closely inflected, from immersion in a solution of phosphate of ammonia (one part to 87,500 of water).

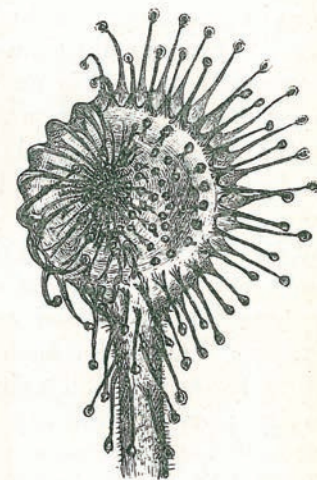


FIG. 5.

(*Drosera rotundifolia*.)

Leaf (enlarged) with the tentacles on one side inflected over a bit of meat placed on the disc.

Movement of the foliage of *Drosera rotundifolia* from Darwin's *Insectivorous Plants* (1875)

plants from overseas, since his close personal friend and colleague Joseph Hooker (of Kew) personally cultivated and had named many species (especially *Nepenthes*, including the giant *Nepenthes rajah* from Mount Kinabalu), and Darwin himself had also corresponded with Alfred Russel Wallace, and many other naturalists in the eastern hemisphere. Whatever the reason for his initial curiosity, Darwin soon began a 16-year research programme to study the strange morphology and adaptations of the leaves of *Drosera*, of which he was initially unsure of their carnivorous nature. He wrote to Joseph Hooker on 29 July 1860:

lately I have done nothing here; but at first I amused myself with a few observations on the insect-catching powers of Drosera, and I must consult you some time whether my "twaddle" is worth communicating to the Linnean Society (Darwin, 1887).

But as his first experiments on *Drosera* were completed, Darwin's confidence grew. He wrote again to Joseph Hooker on 31 August 1860, revealing "the leaves are first rate chemists & can distinguish even an incredibly small quantity of any nitrogenised substance from non-nitrogenised substances".

By September 1860, Darwin's investigation was fully under way. He wrote to Charles Lyell (November 1860):

at this moment, I care more about Drosera than the origin of all the species in the world. But I will not publish on Drosera till next year, for I am frightened and astounded at my results... Is it not curious that a plant should be far more sensitive to a touch than any nerve in the human body? Yet I am perfectly sure that this is true.



Venus's Flytrap (*Dionaea*): "a miniature form of a rat trap"

After making these initial observations, Darwin abandoned his original intention to publish a short paper on the subject, fearing that his estimates of the astonishing sensitivity of the leaves of *Drosera* would scarcely be believed without further supporting evidence (letter to Edward Cressy sent 12 December 1860). Instead, he resolved to continue his research for many years to prepare a definitive treatise on the subject.

To enable his studies, Darwin personally cultivated many animal-catching plants at his home, Down House, in Kent, and famously described the Venus' Flytrap as "one of the most wonderful in the world". Through a series of meticulous experiments, he proved that certain plants can attract, trap and kill insects, detect, react and then "digest" the tissue of the caught "prey" and finally assimilate the resultant released nutrients and thereby acquire benefit. On this basis, he rightfully concluded that "there is a class of plants which digest and afterwards absorb animal matter" and decided that plants of this category should be regarded as carnivores.

But by 1875, many other naturalists were actively studying carnivorous plants, and mirroring Alfred Russel Wallace's work on evolution prepared before the culmination of Darwin's writing *On the Origin of Species*, it may have been apparent in the early 1870s that if Darwin did not publish his findings soon, another naturalist would publish in his place. Finally, in 1875, Darwin's research was released as the revolutionary book *Insectivorous Plants*, and offered the conclusive proof needed to validate the theory.

Many critics denounced the idea of a carnivorous plant in the popular Victorian horticultural periodical *The Gardeners' Chronicle*. One anonymous poet wrote sarcastically in that journal that "dear Fido pet had lost his breath, because, one day, in thoughtless play, he went too near a Violet". Similar denouncement was received from Darwin's fellow scientists too:

Dr. [Eduard August von] Regel [of Germany] adds, "that the only thing wanting is, that some wag should discover a tree in some little known part of the world, that would seize and devour large animals and men.

Echoing the arrival of his work on evolution 16 years earlier, so Darwin's proof of carnivory in plants also had vigorous defenders who rebuffed the disparagement that was thrown, and within a year after the publication of *Insectivorous Plants*, Darwin's findings were repeatedly and independently verified across the world, and very soon, all audiences had no choice but to accept a dramatically altered, new understanding of the natural world—one that accepted a minority of plants as highly specialised predators.



The complex trap opening of the pitcher plant *Nepenthes edwardsiana*

complexity of the known carnivorous plants. Recent findings have revealed many species to have evolved astonishingly complex trapping mechanisms involving adaptations not found in the animal kingdom. Among the most complex species are plants with reflective tissues that evolved to attract arthropods attracted to light (e.g. *Drosera hartmeyerorum*), and complex symbiotic associations in which the plants' traps have diversified to attract birds and treeshrews who deposit their scat allowing the accumulation of nutrients (e.g. *Nepenthes lowii*). In other cases, intricate symbiotic associations with a wide range of predators allow

the plant to exploit an entire ecosystem of associated life that reside within the plants' traps, and partly or completely consume trapped prey to release nutrients for the plant to absorb. Even the process of discovering new species of carnivorous plant remains incomplete, as the remote peaks of world continue to reveal new finds with greater frequency than ever before, including some of the largest carnivorous plant species known (e.g. *Nepenthes attenboroughii* and *Nepenthes palawanensis*). Clearly we are only beginning

Venus' Flytrap (*Dionaea*) growing in the eastern USA.



Unfortunately though, Darwin's discoveries met an uncertain audience. *Insectivorous Plants* was mocked in both mainstream and scientific publications.

One hundred and thirty five years after the publication of Darwin's research, it remains true to say that we are still only beginning to understand the full

to understand the curious world of these most extraordinary plants of prey.

Collections Corner

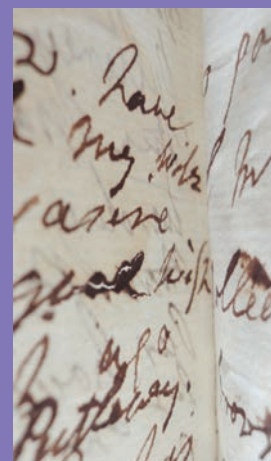
Conserving Smith's Correspondence

In late 2010 The Linnean Society received a grant from the Andrew W Mellon Foundation to undertake the conservation and digitisation of Sir James Edward Smith's Correspondence. The collection of over 3,000 letters to Sir James Edward Smith includes correspondence from some of the 18th and 19th century's most eminent naturalists. The collection has been part of the Society's archives for over 150 years.

The correspondence is currently housed in 26 large guard books each housing approximately 150 letters. Many of the bindings are damaged and by their nature have detrimentally affected the letters. Problems caused by the current housing conditions include restricted access to the correspondence, distortion of the paper resulting in abrasion, creases and tears, obscured text due to heavy paper guards, areas of increased pressure on vulnerable materials such as shellac seals and plant specimens and a lack of a safe handling edge exposing the letters to damage from the environment and handling.

The aim of the conservation project is to rectify these problems by improving the condition and housing of the letters whilst also preparing the letters for digitisation. The work undertaken will include removing the letters from their current bindings and removal of

the heavy paper guards, removing surface dirt, repairing tears and infilling missing areas and supporting holes caused by seals. Some of the more complex treatments will involve removing old repairs that are obscuring text or causing further damage, repair of brittle shellac seals and repair of areas damaged by iron gall ink corrosion. Once conserved new lighter weight Japanese paper guards will be attached and the letters can be re-housed in archive quality acid free fascicules. The fascicules are single section bindings which will house approximately 16 letters each, their design allows for unrestricted opening, a wide handling edge, reduction of distortion and a more stable environment that will ensure the collections preservation. The fascicules will be housed in archive quality Solander boxes in a climate controlled environment.



Ink corrosion



Lucy Gosnay and Helen Cowdy

The conservation work is running in parallel to the cataloguing of the letters, and is being undertaken by a team of two dedicated conservators, Lucy Gosnay and Helen Cowdy, based at the Linnean Society. This alongside with the digitisation of the collection opens up Smith's Correspondence to researchers who will be able to search the material and view the letters from anywhere in the world along with links to Smith's own Herbarium collection, soon to be available online.

Lucy Gosnay and Helen Cowdy

From top: Damage to foredge; surface dirt; damaged seal

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Linnean Connections: The Society for the History of Natural History

The Linnean Society has always had close links with the Society for the History of Natural History (SHNH), now celebrating its 75th year. Originally named the Society for the Bibliography of Natural History, SHNH was founded in 1936 by a small group of distinguished scientists, librarians and bibliographers. Three original founders were Fellows of the Linnean Society and the engagement of members between the Societies continues to this day.



The Society's Jubilee logo (1986-97) captures the concept of the history of natural history in print. The illustrated, refereed journal Archives of Natural History publishes papers on the history and bibliography of natural history. There is more focus on historical studies in the earth and life sciences, with less emphasis on historical bibliography than before, although information on publication dates can still feature in relation to rare books.

The Linnean Society and SHNH collaborate on a number of events and particularly appropriate will be the meeting to celebrate the life and legacy of Charles Davies Sherborn (1861-1942), first President of SHNH, at the Natural History Museum, London on 28 October 2011. Sherborn compiled the Index Animalium single-handedly over 43 years (1758-1850). This 11 volume, 9,000 page work became the basis for zoological nomenclature. Visit: www.shnh.org.uk

Gina Douglas, Archivist Emerita (Linnean Society) and Honorary Meetings Secretary (SHNH)

Airports for the Lights, Shadows and Particles: Survey Exhibition

by Jyll Bradley FLS

The Bluecoat Arts Centre, Liverpool is the venue for a new exhibition of the work of artist (and Fellow of the Linnean Society) Jyll Bradley, including photographs taken for her project on the history of Liverpool Botanic Garden shown in Liverpool and Chelsea in 2008. The show runs until 1 May 2011. One photograph shows the editor of *PuLSe* examining some of William Roscoe's material in the Linnean Society's library, while another shows staff of the Botany Department of Liverpool World Museum pressing an orchid. These images are exhibited in huge light-boxes that emphasise every detail.

Bradley also wrote a book about Liverpool lawyer, politician and abolitionist William Roscoe (1753–1831) who brought together a committee to found the first Botanic Garden in the city. The book, entitled *Mr Roscoe's Garden*, covers Roscoe and the Garden's horticultural legacy and includes the images shown in the exhibition.

The Society's President, Dr Vaughan Southgate, visited the exhibition on the occasion of his talk "In and out of Africa" at Liverpool's Athenaeum Club on 25 February.

Bradley's photographs, including the image of the Linnean Society's library, have now been purchased for the permanent collection at the Walker Art Gallery, Liverpool.

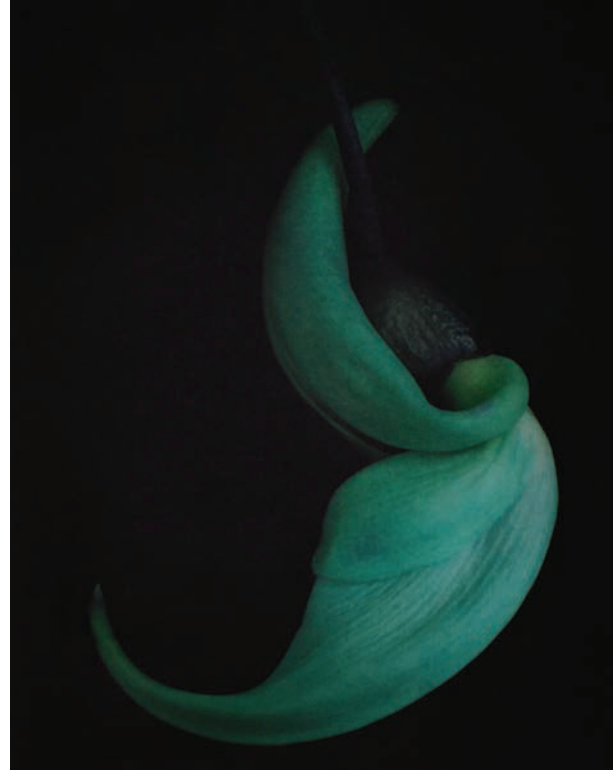
John Edmondson



Named for William Roscoe, *Roscoeia purpurea*

The Jade Vine

The Linnean Society was delighted to receive two wonderful donations recently from Dr Jonathan Singer. Jonathan is a Botanical Photographic Artist and Research Collaborator at the National Museum of Natural History in Washington DC who, as he describes "tries to show the mystical energy that lies below the surface of the natural world". He has donated a copy of his five-volume folio *Botanica Magnifica* (one of only two "traditionally bound original double elephant folios since the Audubons almost 200 years ago" together with a magnificent large print of the Jade vine (*Strongylodon macrobotrys* A. Gray), a species acknowledged as being vulnerable to extinction. Jonathan comments that he is "trying to marry art with science in a way so as to capture the imagination and attention of the world to look again at the global ecosystems before there is nothing more to see. So maybe, just maybe, through my art people of the world will want to know the science and with that, FINALLY take action". The Society is most grateful to Jonathan for these donations.



Forthcoming Events 2011

12th May
Day meeting

Visions from the Blind Seer of Ambon—A Celebration of Georg Everard Rumphius (1627–1702) and his Ambonese Herbal (Registration required)
Gill Mapstone FLS

19th–21st May
Three-day meeting

From Royal Gifts to Biodiversity Conservation: the history and development of menageries, zoos and aquariums (Registration required)
Society for the History of Natural History (SHNH)

24th May
Afternoon meeting

Anniversary Meeting (and Election of New Fellows)
Vaughan Southgate

16th June, 6.00pm

Thinking Art from within Biology
Alexis Rago

More information about these and all of the Linnean Society's events can be found at www.linnean.org or contact Claire Inman on +44 (0)20 7434 4479 ext. 11, email: claire@linnean.org



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