

PULSE

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

I AM a plant taxonomist—in the 19th century I would have been called a natural historian—and have spent much of my career collecting and documenting the plant diversity of the tropics. Even though he was primarily interested in animals, not plants, the 19th-century British naturalist Alfred Russel Wallace (1823–1913) has always fascinated me—he was a professional naturalist-collector who struggled to be accepted into the Victorian scientific “establishment” despite his pivotal role in the articulation of evolution by natural selection—a man full of contradictions. Wallace was a true field biologist. His collections, despite the tragic loss of many of them in a fire that sank the ship *Helen* as he was returning from South America, truly expanded knowledge of the biological diversity of both the New and Old World tropics. From a 21st-century perspective it is difficult to reconcile the image of a man who shot and killed 18 orang-utans (the 19th he shot at got away), with that of the man who advocated the establishment of botanical reserves in the tropics and railed against social injustice. Alfred Russel Wallace did all of these things, and his relationship with nature and the environment is both typically Victorian and astonishingly modern.

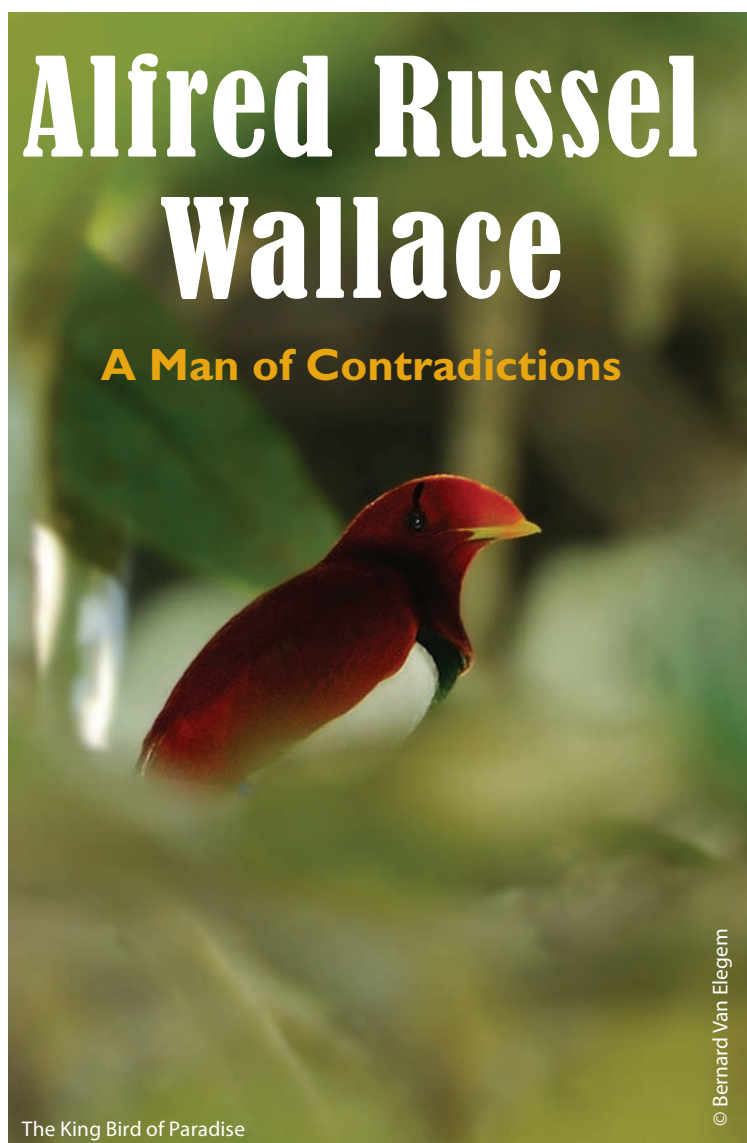
Wallace’s interest in natural history began when he was an apprentice surveyor with his brother William and eventually went on to blossom during his 12 years in the tropics. His experiences of collecting in some of the most diverse places on Earth gave him an intense, almost spiritual, appreciation for the grandeur of natural places. Acute observations of the habits and ranges of many species of plants and animals gave him the data needed to analyse the impact of humans on the environment. Wallace, however, was not really a “proto-conservationist”. His deep sense of the importance of human beings and his passionate views on social reform meant his take on conservation was less wildlife and beauty-oriented than that of his contemporaries—he saw nature in terms of its relationship to human beings.

In his travels to the Amazon and Southeast Asia, Wallace combined his sharp observational skills with his ability to find, identify and catalogue collections of the most marvellous specimens of natural history; mostly birds, butterflies and beetles. His writing gave, to the late Victorian public, lyrical (sometimes slightly hyperbolic for modern tastes) descriptions of the plants and animals of the tropics. Seeing new, beautiful things is very exciting. Upon catching a magnificent birdwing butterfly—with a wingspan of more than 10cm—Wallace felt “much more like fainting than [...] when in apprehension of immediate death”.

Beauty and the thrill of the new also makes one think. When Wallace first saw the prized King Bird of Paradise—a tiny red and cream jewel—he reflected that such creatures live their whole lives out of the sight of humans, but that should humans ever reach those places, they could

Alfred Russel Wallace

A Man of Contradictions



The King Bird of Paradise

© Bernard Van Elegen

disturb the “nicely balanced relations” and even cause their extinction. This made him realise that “all living things were *not* made for man”. He stood watching a black jaguar in the Amazon, rapt, his gun to his shoulder, but in awe of the spectacle. In all the many years I have worked in the New World tropics I have never seen a jaguar in the wild—he was lucky, but he knew it.

Continued on p.2

Despite vivid descriptions of the tropical forests in which he travelled, Wallace very rarely wrote about man's effect on the environments in which he was collecting. This is not to say he did not notice the effects human beings, both native and colonial, were having on natural habitats. He saw that the collection of turtle eggs could decimate populations, and commented on the scarcity of large mammals such as elephants and rhinoceros as agriculture advanced. I imagine that he witnessed, as I have, tracts of forest felled between visits, or trails and roads washed away in flash floods where logging and agriculture have stripped vegetation from the land.

After returning from his travels, Wallace's writings began to take a synthetic turn, and here, in the relative comfort of Britain he began to voice opinions that sound more environmentally radical—he put together all his observations, not just for entertainment, but to use as instruction for those in power. He was not directly involved with conservation lobbying groups like the Society for the Preservation of the Wild Animals of the Empire, but he did write popular books, designed to be read by those who voted, and whose opinions, he felt, could change the way politicians behaved. His experiences collecting

Alfred Russel Wallace

allowed him to see the complexity of life's interactions, and how simple decisions by those in power could change things utterly, often for the worse.

Although many of Wallace's statements still ring true today, he was not a prophet, nor was he particularly out of step with the *zeitgeist* of his time. His intensely personal views meant that often he did not really set his opinions in the context of what was going on elsewhere, but instead seems to depict himself as the only one with views on these topics. This can make him seem a lone thinker, perhaps even possessing "devastatingly accurate foresight". But Wallace *was* different; for him nature existed for human beings,

either for rational and equitable use in the present or as a complex net developed by evolution culminating in man—it was man that mattered. This I think puts him in a unique position for his time. While some of his ideas may seem idiosyncratic or even patently false in a 21st-century context,

they are nevertheless in tune

with broad, challenging goals set by today's international community to put an end to poverty, educate all, empower women and achieve a stable environment.

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Virtual Wallace

Alfred Russel Wallace is best known for his role in formulating the theory of evolution through natural selection. To celebrate Wallace100, *The Biological Journal of the Linnean Society* has produced a free online virtual issue of relevant papers that have appeared in Linnean Society journals. Four were written by Wallace himself (including the famous joint Darwin and Wallace (1858) paper read by Charles Lyell and Joseph Hooker at the Linnean Society), a mere fraction of his prolific output. The remaining 13 papers are more recent and were written by some of the many authors inspired not only by Wallace's ideas—and the biogeography of Indonesia and surrounding lands is prominent here—but also by controversy surrounding his role in the history of evolutionary thought.

Follow this link to read the Wallace Virtual Issue ([http://onlinelibrary.wiley.com/journal/10.1111/\(ISSN\)1095-12/homepage/alfred_russel_wallace_virtual_issue.htm](http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1095-12/homepage/alfred_russel_wallace_virtual_issue.htm)).

Global Plants Initiative (GPI): Panama January 2013

The Global Plants Initiative (GPI), an international partnership of herbaria that began as the African Plants Initiative in 2003, has been creating a digital database of images of plant type specimens worldwide, with support from The Andrew Mellon Foundation. The online resource is available to the public via JSTOR, a not-for-profit organisation dedicated to preserve a variety of intellectual content. GPI currently includes 263 herbaria from 71 countries and the database (JSTOR Plant Science, soon to be re-branded as Global Plants) holds over 2 million images, 1.5m types and historical specimens, plus 190,000 images of botanical artwork and nearly 450,000 articles linked from JSTOR. The Smithsonian Tropical Research Institute (STRI) is a key player in GPI and hosts/coordinates annual meetings, which this year was held in Panama, attended by 172

delegates from 38 countries. Dr Sandy Knapp, one of the Linnean Society's Scientific Secretaries, attended in her capacity as Vice President of the International Association for Plant Taxonomy (IAPT) and as a member of the newly constituted GPI Steering Group, which will help the community persist after Mellon funding ends. She gave an excellent presentation on 'Tracking types—an idea for a lectotype register' delivered in fluent Spanish.



Colourful bromeliad in Cerro Jefe cloud forest

© Elizabeth Rollinson

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Linnean Learning at the 2013 ASE Conference

Earlier this year the Education team of Hazel Leeper and Leonie Berwick spent four days at the Association for Science Education conference at the University of Reading, chatting to teachers, explaining the work of the Linnean Society and promoting our new educational resources.

Several hundred teachers, technicians and students visited 'The Biology Stand' (a joint stand shared with the Society of Biology, Physiological Society and Biochemical Society, to name a few) and stopped to watch a demonstration of our new practical activity 'Battle of the Beaks', with many visitors keen to have a go themselves! Our giveaway packs went down a storm, with the practical guidelines proving to be very popular among both primary and secondary school teachers.



Elizabeth Tower—96m tall!

Our bespoke folder packs housed worksheets, practical activities and posters, with many teachers commenting on the thoughtfulness of the materials with several of the curriculum-based activities being simple things that they would not have thought to do themselves, like the beak adaptation activity, or our sugar sprinkle ecology sheet! One teacher who had previously used some of our resources actually sought us out to say how much she enjoyed using them. Many teachers signed up to receive updates about new resources from the Society as they are developed.

As part of 'Biology in the Real World', a series of lectures



Hazel Leeper leads our beak adaptation practical; LEFT: Our Linnean Learning resource folder

hosted by the organisations on The Biology Stand, the Linnean Society sponsored a lecture by Dr Mike Fay FLS, Head of Genetics at the Jodrell Laboratory at the Royal Botanic Gardens, Kew. Dr Fay's fascinating talk 'The largest genome of them all?' encompassed his work on *Paris japonica* (Melanthiaceae) which his team established has the largest genome discovered to date, using flow cytometry, and the consequences of this species having more DNA than other species (slower replication, for example). Dr Fay showed how the genome size in angiosperms varies ca. 2400-fold, compared to genome size variation in animals: reptiles (5-fold), mammals (5-fold) and birds (2.4 fold). End to end in length, the DNA for *Paris japonica* would measure 100m; considerable when compared to the Elizabeth Tower at 96m!

Since the conference we have been approached by several people who have expressed interest in collaborating on worksheets, practicals and possible projects in the future.

Hazel Leeper and Leonie Berwick
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All images © Leonie Berwick

The Maxwell Knight Young Naturalist's Library

During my talk about Maxwell Knight (*Amateur Naturalist, Professional Spy*) I stated that despite my best efforts, I couldn't for sure say if the book collection established in Max's memory was still extant, but I had heard that it was dispersed throughout the Natural History Museum Library. After the talk, I was contacted by Ms Lisa Di Tommaso, one of the librarians at the Natural History Museum, London, who very kindly informed me that this library for young people does still exist as a discrete entity! The contents of the collection may be found at www.nhm.ac.uk/library.

For those who couldn't attend the talk: after Maxwell Knight's death in 1968, an open letter was signed by many well-known naturalists. This led to the founding of the Young Naturalist's Library as a memorial to Max, who was an inspiring figure to many young nature enthusiasts. It was housed at the Natural History Museum, but I was uncertain as to its present day location until contacted by Ms Di Tommaso! A mystery solved!

Stephen Moger FLS

THE MANDARIN DUCK



© Katrina van Grouw

Male and female Mandarin Ducks

A NATIVE BRITISH SPECIES?

Perhaps surprisingly, the Mandarin Duck was apparently a former native species in Britain, so its appearance here now is, strictly speaking, as a reintroduction rather than an introduction. In his paper on the Pleistocene birds of southeastern England, Harrison (1985: 60) wrote:

A species of special interest is the Mandarin Duck *Aix galericulata*. It may seem at first slightly improbable—[but] is really no more unlikely in terms of distribution than the Azure-winged Magpie *Cyanopica cyanea* which, were it not for its limited range in Spain and Portugal, we would assume to have evolved in isolation in southern China where it also occurs.

Expanding on this, Harrison (in Harrison & Reid-Henry 1988: 14–15; 63) wrote:

... the Forest Beds of north Norfolk during this [interglacial] period [the Cromerian] give us an interesting avifauna of [the Middle Pleistocene] some 600,000 years ago.

It was a period probably a little warmer than our present one. From pollen and faunal evidence there appears to have been fresh water, both fen and river, and the sea nearby. There were open grassy areas, and some temperate mixed oak-woodland.

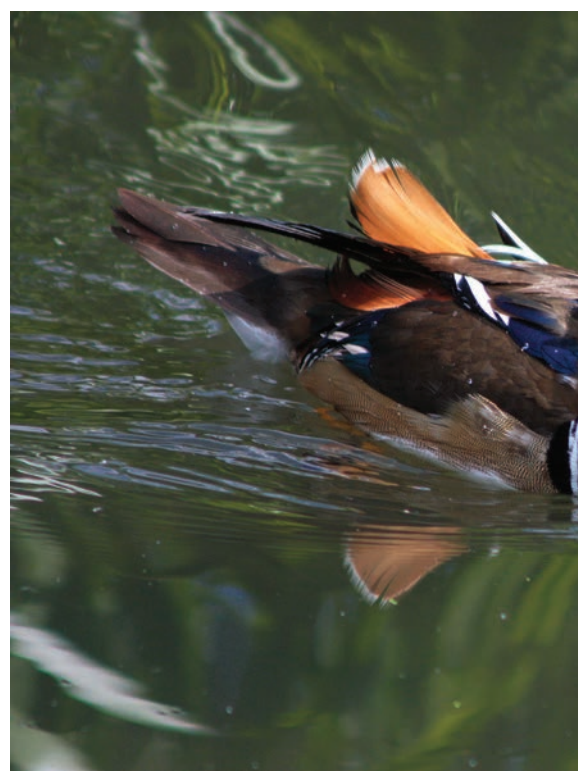
A more unexpected species that might have used these habitats, and to which some of the bones from the Forest Beds appear assignable, is the Mandarin Duck *Aix galericulata*. The present natural occurrence of the species is the wetter oak-wood habitats of China. ... The related Wood Duck *A. sponsa* occurs on temperate forest waters in North America. In the early Pleistocene, Europe and western Eurasia appear to have shared with eastern Eurasia and North America a richer and more varied temperate forest. With successive glaciations, during the ebb and flow of shifting vegetational zones, the east-to-west mountain masses and the seas of southern Europe, Mediterranean and Middle East appear to have presented increasing barriers. Re-colonization in warmer periods seems to have been less successful, leading to impoverishment of the flora, and with it an impoverishment of the fauna. The Mandarin appears to be part of what we have lost. ... Several bones found in the Cromerian forest beds of Norfolk seem to be referable to this species and to indicate its presence in the Middle Pleistocene. There is evidence of the presence of temperate oak forest at that time which would have been suitable for it.

There is possible zoogeographic parallel in a quite unrelated species,

the Azure-winged Magpie *Cyanopica cyanea*. ... One subspecies of the Azure-winged Magpie is found in southern China and Japan. Another isolate subspecies (*cooki*) is near the opposite end of the chain in Spain and Portugal ... Had the Iberian population not existed it would almost certainly be argued that this magpie had evolved only in the Far East. The occurrence of Mandarin Duck in western European temperate woodland in the past is at least as likely as the distribution pattern apparent in the magpie.

This is confirmed by Yalden & Albarella (2009: 34) who say: 'The Upper Freshwater Beds [the Cromerian Forest Beds] along the north Norfolk coast, especially at West Runton, have yielded an extensive fauna ... of aquatic birds ... Somewhat improbably, there also appears to be Mandarin.' The Mandarin Duck was first introduced to England shortly before 1745, when a drawing of *La Sarcelle* [Teal] *de la Chine* in the gardens of Sir Matthew Decker, Bt (1679–1749) at Richmond Green in Surrey was made by George Edwards (1694–1773) for his *Natural History of Birds* (1742–64).

In 1830, the Mandarin was included in the Zoological Society of London's collection in Regent's Park, where it first bred in 1834. The two pairs were purchased at an auction of the Earl of Derby's wildfowl collection for the huge sum of £70. Here John Gould (1804–81) drew a drake from life for his *Birds of Asia* (1850–80). The earliest known reference to a Mandarin Duck in the wild in Britain was one shot at Cookham on the River Thames in Berkshire in 1866.



In the early 20th century, the 11th Duke of Bedford acquired some Mandarin for his waterfowl collection at Woburn Abbey in Bedfordshire, where by the outbreak of the First World War they numbered over 300, and local farmers were beginning to complain that the birds were causing damage in fields of stooked grain. During the two world wars, because of the difficulty of supplying the birds with supplementary food in winter, and due to the shortage of gamekeepers to control predators, the population of Mandarin declined to around 150, at which it remained stable.

In 1906 the Wormald & McLean Game Farm in East Anglia began to import, among other species, Mandarin Ducks, which were acquired from various dealers, mostly in Canton (now Guangzhou). As, however, the Mandarin bred only rarely, after the First World War the farm obtained some wild-trapped Mandarin from near Canton. Thereafter the Mandarin bred successfully, tending to confirm the allegation that to protect their lucrative trade the dealers had caponised the drakes before selling them.

In the years immediately preceding the First World War, Sir Richard Graham, Bt, of Netherby in Cumberland (now Cumbria) on the Border Esk, acquired some Mandarin from the Wormald & McLean Game Farm, where the birds were reared in captivity. Subsequently, pairs bred for some years in a wild state along the River Esk, but by the late 1920s this population had died out.



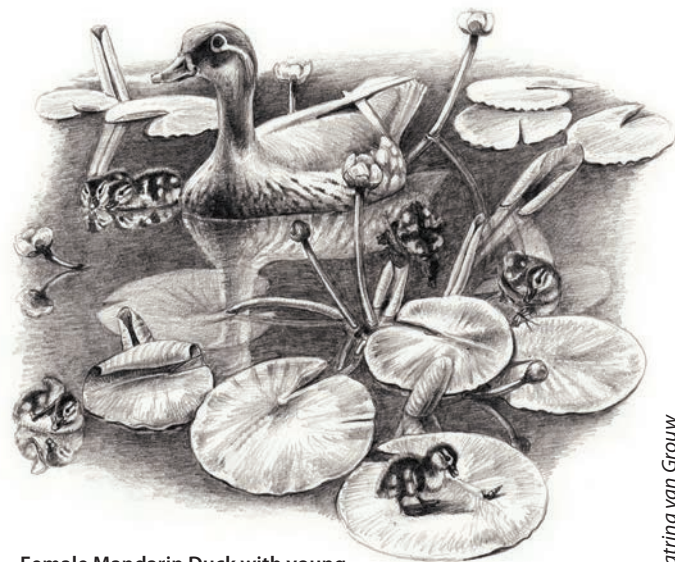
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In 1918 Viscount Grey of Fallodon added some Mandarin Ducks from the Wormald & McLean farm to his waterfowl sanctuary at Fallodon in Northumberland. Although the Mandarin at Fallodon initially flourished and spread outside the estate, they disappeared after Lord Grey's death in 1933.

In 1928 or 1929, the ornithologist Jean Delacour (1890–1985) found a large consignment of Mandarin Ducks in the bird market in Paris, to which they had been shipped from Hong Kong. Delacour purchased the entire consignment of nearly 50 birds, and in 1931 or 1932 gave between four and six pairs of the healthiest survivors to his friend, Alfred Ezra, who maintained a collection of exotic waterfowl at Foxwarren Park near Cobham in Surrey. From Foxwarren, Ezra's Mandarin spread to the River Bourne, which runs into nearby Virginia Water (an artificial lake of around 53ha in Windsor Great Park), where they were first seen in the winter of 1929 or 1930. From Virginia Water Mandarin subsequently spread to other ponds and lakes in Windsor Great Park on the Surrey/Berkshire border; here, as at Woburn, they found an ideal habitat and flourished.

In 1935 the brothers Ronald and Noel Stevens added some full-winged Mandarin to their collection of wildfowl at Walcot Hall in Shropshire, where the ducks failed to breed until the numerous Jackdaws *Corvus monedula*, which competed with the Mandarin for nesting-sites, had been eliminated. Thereafter, the Mandarin thrived in the ideal habitat at Walcot, where their number peaked at around 100, at which it remained until the outbreak of the Second World War, when the hall was requisitioned by the military until 1948. During the occupation the collection of wildfowl dispersed, and Mandarin seen in parts of North Wales at this time and in 1944 in Lancashire are presumed to have come from Walcot. After the war, some of the Mandarin returned, and up to 40 were counted in a single flock.

As the Mandarin Duck is included in Part 1 of Schedule 9 of the Wildlife and Countryside Act 1981, it has since that



Female Mandarin Duck with young

© Katrina van Grouw

date been illegal deliberately to release or negligently to permit the species to escape into the wild in Britain. Nevertheless, the 'accidental' release and escape of Mandarin Ducks (and other exotic species) continues to this day, which the police, the RSPB and other statutory bodies have neither the time nor the resources to pursue.

The Mandarin Duck, which is now widespread in England and Scotland and occurs in parts of Wales and at one site in Northern Ireland as well as in several European countries and at two sites in the United States, is notable for being one of the few introduced (or reintroduced) species that has proved almost entirely harmless. Although some minor competition occurs in Scotland with Goldeneye *Bucephala clangula* for food and nesting-sites (almost invariably to the latter's advantage), surely only the most bigoted purist would not welcome such a beautiful species to the British avifauna?

Sir Christopher Lever FLS

References

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- Harrison, C.J.O. [In Harrison & Reid-Henry, D. 1988]. *A History of the Birds of Britain*. Collins: London.
- Yalden, D.W. & Albarella, U. 2009. *The History of British Birds*. Oxford University Press: Oxford.

Christopher Lever's monograph *The Mandarin Duck* was published by Poyser in February 2013.

Thank you to Katrina van Grouw for the use of her images

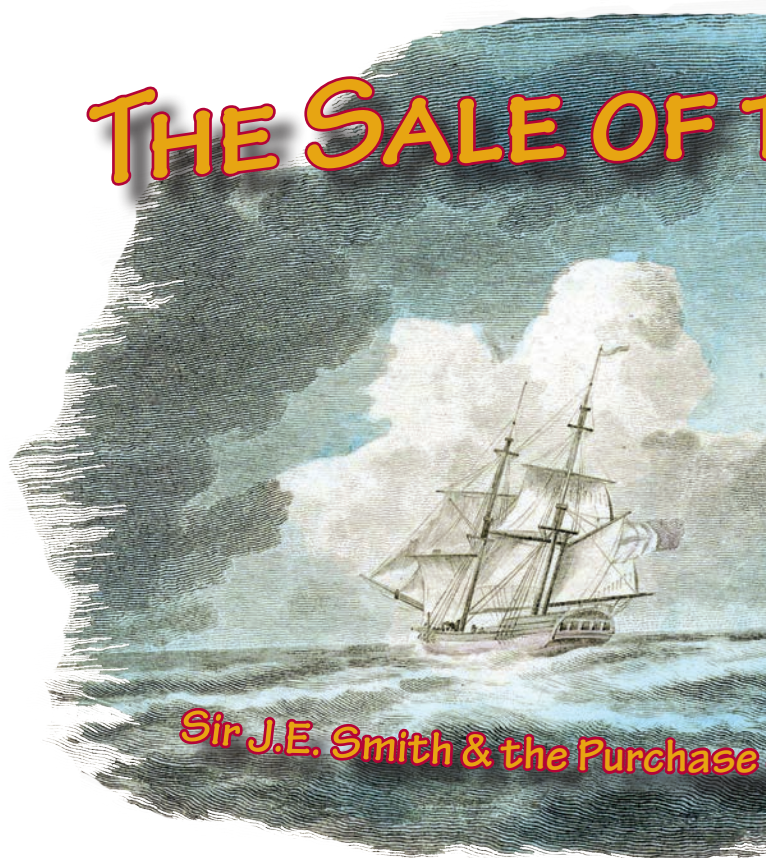
When James Edward Smith (1759–1828) purchased the library and collections of Carl Linnaeus (1707–78) in 1784 he quickly became one of the most well-known botanists in Europe. The story of the purchase is well documented, stemming from Smith's double luck of being present at the breakfast at which Sir Joseph Banks (1743–1820) turned down the collection first offered to him, and for having an indulgent father, who agreed to fund the 900 guineas required for the purchase.

What is perhaps less known is the immediate aftermath of Smith's purchase, and its arrival in London in October 1784. Letters of congratulation poured in for Smith, including one from Thomas Woodward (1745–1820), a gentleman botanist and Smith family friend, resident in Suffolk, who thought the collection "undoubtedly the most valuable that could come into the hands of any naturalist". The prestige was not limited to Smith, and the collections were considered a national acquisition. Shortly after their arrival, Samuel Goodenough (1743–1827) wrote that the purchase set Britain "above all other nations in the Botanical empire". This is reflected in a letter written by John Sibthorp in early 1785, in which he relates the anger of the

Swedish people against Johan Gustaf Acrel (1741–1801), the collections' salesperson, for selling it out of the country. In the same letter Sibthorp describes how close Smith came to losing the purchase of the collections, as Smith had settled with Acrel for 900 guineas only just before the arrival of Sibthorp's own offer of 1,000 guineas. In a response to Woodward, Smith credits his luck to being friends with Dr Englehardt, Acrel's London contact. In fact, Smith was so efficient that he concluded the sale just as other interested parties were only beginning to enquire about it.

Although their scientific worth was the principle motivation for acquiring the collections, they were also a sound financial investment. Before their arrival, Smith conferred extensively with Thomas Woodward. Woodward was as excited as others about Smith's acquisition but was also practical. He advised on the presumption that Smith would retain the herbarium and sell off the other collections, suggesting various potential publications to harness the monetary value of the manuscripts, including a *Flora Britannica*, and a selection of Linnaeus' correspondence (works that Smith would go on to publish in 1800–04 and 1821, respectively). He also recommended selling the shells, fish, and insects, on account of their fragility, and to sell off the rare books. As a last word of caution he warned Smith against Russian roubles. Ultimately, Smith decided to keep the greater part of the collections, although items were not in any way sacrosanct. There are numerous references to Smith sending Linnaean plant specimens to friends as gifts, and he either sold or gifted duplicate books, with first refusal going to Woodward. On receiving a Linnaean specimen of *Diapensia lapponica* in 1789, Edmund Davall (1763–98) commented that "a piece of the Cross is less precious to a Catholic".

THE SALE OF T



Sir J.E. Smith & the Purchase

The collections became Smith's calling card, especially during his tour of Europe in the years 1786–87. In a letter of 21 August 1786 sent from Paris to his father, Smith commented that his possession of the Linnaean collections was of more use to him in France than in England, as in France everyone looked to him for information and were eager to communicate, to the point that he felt the danger of "becoming too vain". It was on the strength of his ownership that Smith was elected a Fellow of the Royal Society in 1785, without a single black ball.



Sir J.E. Smith



Paradise Row, on the left (now Royal Hospital Rd), where Sir J.E. Smith housed the collections

THE CENTURY

of the Linnaean Collections

Linnaean myth: the Swedish pursuit of the sold collections

Smith made the collections freely accessible to his friends, and others, on the strength of letters of introduction. They were initially housed at 14 Paradise Row, Chelsea, and Smith employed a house servant to clean the house and look after the collections in his absence. Unfortunately, during his tour of Europe, the servant, Molly Standard, had fallen pregnant during a dalliance with the man she was courting. Smith was informed of this in May 1787 by his father, and initially Smith was sympathetic, writing to his parents that he

was sorry to hear of her "folly and misfortune". However, it fell on Smith's mother, Frances, to come up from Norwich and take the situation in hand, and Smith became more frustrated, writing in July of being much "chagrined", not having made "provision for a groaning".

It appears that Molly was dismissed and Frances kept the house until Smith's return to London in late 1787. Perhaps in reference to this sorry situation, after Smith permitted Woodward to consult the Linnaean collections in his absence—Woodward jokingly reassured Smith that he would be too busy for any "gallantry" with the maids, who in this case were not chosen "as single men's maids sometimes are for their superior beauty".



Smith initially

The collections' accessible presence in London was undoubtedly significant in propagating the Linnaean system, particularly after the founding of the Linnean Society in 1788. However, in 1797, Smith moved to Norwich and took the collections with him, which occasioned a severe inconvenience to interested botanists. In October 1824 Simon de Roxas Clemente y Rubio (1777–1827), a Spanish botanist, wrote to Smith complaining that he had come to England partly to see the Linnaean collections, but he had been frustrated by the distance Smith lived from London.

The mineral and fossil collections were less fortunate. They are presumed to have been dispersed, consequentially

dispose of, presumably in preparation for the Norwich move. A lack of Society funds prevented this. In the end the fossils and minerals were sold at an auction at Guy's Hospital, London, in early 1796. Smith asked William Babington (1756–1833), physician and mineralogist, and a Dr Mitchell, to examine and catalogue the Linnaean minerals in preparation for auction, from which it seems they were almost worthless. Smith made £13 10s 10d, a surprisingly small amount. Babington states that the collection had:

but one valuable specimen, and this so concealed by dust that had the collection not undergone individual examination it would probably have been overlook'd.

Babington apologises for essentially exposing the low value of the collection, for if they had been sold as an unexamined whole there would have been many who, for the chance of a valuable discovery, would have paid more than was finally received.

We are to be thankful that Smith ignored Woodward's warnings and kept the insect and other non-herbarium collections intact and free from major damage and

Dr Mitchell & I have taken to promote your Interest have on the contrary operated to your Disadvantage; for I dare say there are many who for the chance of a valuable discovery would have given more for your part than it now amounts to. This however I can with

Babington's fossil letter: 'the chance of a valuable discovery'

lost forever, though the exact events are confused. In a letter to Woodward of April 1784 Smith described the contents of the collection, which included everything except the fossils of the elder Linnaeus, given to the University of Uppsala. However, in June 1785 Woodward wrote expressing his satisfaction that Smith had not yet disposed of the fossils, and in February 1796, Thomas Marsham (1748–1819), Linnean Society Treasurer, suggested that the Linnean Society purchase the Linnaean fossils Smith intended to

destruction. The continued protection they have enjoyed since their purchase by the Linnean Society in 1828, and the continued succession of naturalists who consult the collections, is a testament to the importance of these collections. Considering that even in 1776 Linnaeus acknowledged the insect cabinet could not be kept for long, "because of moth", this is a remarkable achievement.

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Annual Field Trip: North Wales 22-23 June 2013

This year's Field Trip will explore regions in North Wales; on 22 June the group will traverse the dramatic coastline of Anglesey. Visiting sites such as South Stack, Parys Mountain, Newborough Warren and Llandwyn Island, the trip will focus on the flora and fauna of these areas. From maritime dwarf shrub heath and choughs to metal tolerant plants and red squirrels, the group will experience the rich wildlife of Anglesey. On 23 June the group will visit Great Orme in Llandudno and Cwm Idwal in Capel Curig. Here, the group will hope to spot some rarities and noted species such as the Silver-studded blue and local race of Grayling butterflies. Throughout the trip, opportunities will be taken to visit and discuss the rich ancient and modern archaeological legacy of the area.

This meeting is for Fellows only; registration is essential and spaces are limited. Registration opens on 2 April 2013, for more information please visit www.linnean.org/fieldtrip2013 or email events@linnean.org



© John Good

Building Work has Begun!

The building work at Burlington House is now heavily underway, with stairs being removed and walls being cut through. Progress is going well—we'd like to take this opportunity to thank Fellows for their patience. Please note that the Society's rooms (including the Library) are still closed as the building work continues.



Assistant Project Conservator: Sam Taylor

After recently completing her training as a Paper Conservator, Sam previously managed a repackaging project for the Egypt Exploration Society, working with 19th- and early 20th-century glass-plate negatives, including original photographs taken by Flinders-Petrie of ancient Egyptian archaeological sites. Sam also assisted in conserving the correspondence and designs of Bernard Leach, a prominent 20th-century ceramic artist with links to Japan, at the Crafts Study Centre in Farnham. Sam says:

Assistant Conservator on the Smith Correspondence Project was an attractive post because of the importance of the collection, with the unusual opportunity to conserve archive material containing biological specimens.



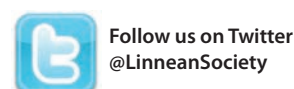
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Coincidentally, after starting her role at the Society, Sam revealed that she had grown up in Norwich and was intrigued to discover that Smith's former residence in the City was on her daily route to school, and that he was founder of the Castle Museum which she had often visited as a child. Please join us in welcoming Sam to the team.

Forthcoming Events 2013

- 22 March 2013**
Day meeting
The Banking Busy-Bee: Sir John Lubbock FRS FLS
Interdisciplinary conference at the Royal Society; see royalsociety.org for details
- 10–12 April 2013**
Two-day meeting:
10.00–17.00
Protists and Next Generation Sequencing: a forum for ideas, news, information & exchange *British Society for Protist Biology Spring Meeting at the Natural History Museum, London*
Registration required (www.linnean.org)
- 18 April 2013,**
18.00
Agricultural Biodiversity—will *Homo sapiens* live up to its name? *Science Policy Lecture: joint meeting with the Systematics Association at the Royal Astronomical Society*
Speaker: Mr Julian Hosking FLS

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



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