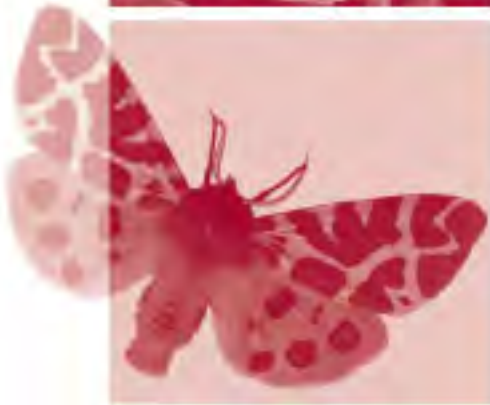




The Linnean



NEWSLETTER AND PROCEEDINGS OF THE LINNEAN SOCIETY OF LONDON

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A living forum for biology

THE LINNEAN SOCIETY OF LONDON

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Editorial

The main article in this issue is the Brogdale Lecture for 2006, an account of Edward Bunyard FLS. The Brogdale lectures were initiated in 2003 as a collaboration between the Brogdale Horticultural Trust and the Linnean Society. The Trust is home to the National Fruit Collections and maintains 150 acres of beautiful orchards. It has the largest collection of varieties of pears, plums, cherries and bush fruits, and smaller collections of nuts and vines. The lecture programme was originally set up by John Marsden, the then Executive Secretary, who arranged for the charity to have its meetings in our rooms. This, the third meeting, reported on below, concerns the life of the horticulturalist Edward Bunyard FLS which includes a description of the foundation of this great Kentish nursery firm by Edward Bunyard's great-grandfather in 1796. However, for the most part it is an account of Edward himself, how he founded the *Journal of Pomology* and how he introduced those two well known apple varieties, Golden Delicious and Granny Smith. Edward was also a rosarian and published *Old Garden Roses* in 1986. Not surprisingly Bunyard Nurseries raised over 400 varieties of rose. Edward was a most industrious person!

Both of the other articles are relevant to this Tercentenary Year of Linnaeus. The first deals with the importance of Bishop Gunnerus to Linnaeus. As a newly appointed bishop Gunnerus issued a pastoral letter to his clergy in 1768 urging them to study natural history while three years later, in 1761, Gunnerus first communicated with Linnaeus in a twelve page letter concerning marine life. Then, in 1764, Gunnerus informed Linnaeus that he was working on a "Flora norvegica" and provided Linnaeus with *Veratrum album* from Finnmark. As the author concludes, Gunnerus and Linnaeus were twin souls trying to organize and understand God's creation. Finally, the author concludes that Linnaeus nicknamed Gunnerus the "new Plinius of the North".

The final short article concerns Linnaeus' bumblebees in which the author notes that they represent an important reference collection of insects, fixed in time in the late 18th century. He concludes that the population declines of the present day have been somewhat halted by DEFRA's Countryside Stewardship Scheme and Syngenta's Operation Bumblebee, not to mention the work done by Wildlife Trusts on non-statutory sites.

BRIAN GARDINER

Society News

You may have seen in the July 2007 issue of *The Linnean* that Adrian Thomas, our Executive Secretary, wrote that he was to retire at the end of August. Adrian has contributed a great deal to the life of the Society. He has worked closely with the Co-ordinator for the Linnean Tercentenary, Jenny Edmonds, in successfully seeing through a large part of the Tercentenary programme, and in particular, those events which took place in the Rooms of the Society. He has also helped manage refurbishment work on the second floor and meeting rooms, with Gren Lucas and Victoria Smith. This has involved long working hours and much dedication to his post.

The Officers and Council have become used to prompt reminders of meetings, and the well-presented minutes that are his hallmark. I shall miss the helpful discussions we had concerning the well-being of the Society, and I am pleased to be able to record my personal thanks and good wishes to Adrian in his retirement, in addition to the good wishes from those who have worked and corresponded with him on Society matters. We hope that Adrian and Robyn will now find considerably more time both to pursue their interests and with their family!

The Tercentenary meetings and celebrations have continued unabated. The joint Symposium with the University of Uppsala ‘Unlocking the Past – Linnean Collections past, present and future’ was a great success. On 11th and 12th June the meeting started at the Society, and then with a break of a day for the journey, continued in Uppsala on 14th and 15th June. The hospitality in Uppsala was excellent, and the lectures, visits and social events were much appreciated by the participants. Thirty-two people went on the visit to Gotland, arranged to follow the Symposium. This was excellent, most informative and enjoyable, and is reported elsewhere in this Number of *The Linnean*.

The Joint Meeting with the Royal Society on the ‘Evolution of Animals’, 18th and 19th June was heavily oversubscribed, and, as anticipated, most successful, with over 300 participants. Our grateful thanks go to Tim Littlewood and Max Telford who organised the event.

The social events held at Kew, 7th June, and Chelsea Physic Garden, 3rd July, were well attended; it was dry at Kew, but rain at Chelsea did not stop play; it meant that David Frodin had more time to spend on his most interesting talk, while people dodged the downpours.

As part of the programme of general meetings, Lincoln Pierson Brown FLS gave a memorable lecture on the Monarch butterfly on 28th June entitled ‘King of the new world: the adaptive repertory of the Monarch butterfly’, and Robert Prys-Jones presented a paper co-authored with Julian Hume on ‘Evolution and extinction of birds on the smaller western Indian Ocean islands’ on 12th July, which was well received. Both papers attracted extended discussion.

August was quiet on the meetings front, but the work of the Society continued behind the scenes. A further meeting of the Strategy planning group was held. Excellent progress has been made in clarifying objectives and goals for a Strategic Planning Document. We are hoping that in future many more Fellows and Associates than at present will be able to play an active part in the life of the Society, and one of the key elements in the document aims at achieving this. For example, we are looking at ways of gathering and making available information on particular interests of our members that could be accessed through a secure part of the Society website. Plans are also being made to ensure that we can work together on determining a way forward and tackle the root problems in the apparent decline in taxonomy, and in the number of taxonomists. Taxonomy plays a key role in our understanding, conservation and management of the natural world; we need effective policies to ensure that a succession of new taxonomists is trained, and all major groups of organisms are covered.

There has been considerable progress made in the work on digitising our collections, both of specimens and Linnaean Correspondence; the Linnaean Correspondence was put on line on 7th August. Please look at the Society website to keep up to date with these fast moving exercises!

September saw the resumption of Tercentenary events and general programme. On the 14th, at the RHS, Vincent Square, there was a meeting on 'Botanical art in the age of Linnaeus'. Then on 20th September there was a lecture by Mike Bruford on 'Profiling endangered species: how molecular genetics can help us manage our vanishing species'. On 27th and 28th September a major symposium was held, with the Royal Society of Tropical Medicine, on 'The natural history of host-pathogen evolution and co-evolution'. These events will be reported on in the next issue of *The Linnean*.

The Society also welcomed visitors on Saturday, 15th September, as part of the London Open House programme. This has proved to be a worthwhile event in the past, and we enjoyed introducing more people to the delights of natural history as seen through our eyes and the collections.

Finally, we are most grateful to Gina Douglas who has taken on the role of Acting Executive Secretary while we search for a replacement for Adrian.

DAVID CUTLER PLS

Peter Ashton FLS awarded the Japan Prize

Peter Ashton recently received the most prestigious Japan Prize. Japan Prizes are awarded for scientific achievement that benefits mankind and they aspire to the prestige of the Nobel Prizes. Two are awarded annually, in the presence of the Emperor and Empress, in the physical, and the biological sciences including medical and agricultural sciences. Peter was awarded the 2007, 23rd, biology prize, for 'Science for Harmonious Coexistence', which means the use of science towards ameliorating the relationship of mankind and the natural world. More specifically, the prize recognises Peter's contribution to the conservation of tropical rain forests.



Professor Kunio Iwatsuki, Chair of the Selection Committee, in a speech on the occasion said that the citation stressed Peter Ashton's extension of systematics research into floristic ecology.

Peter later pointed out to me that it is his fiftieth year of research in the rain forests of Asia and that from the beginning he had sought to apply results, initially for more effective management of forests for timber, now towards identification and management of forested sites with exceptional biodiversity. He focused on Dipterocarpaceae which were dominant in stature and species richness in the canopy of Asian lowland rain forests. He stressed the use of dipterocarps as a tool to understand floristic relationships with the physical habitat, and niche specificity among the series of closely related species so characteristic of rain forests; pointing out that the resulting paper first appeared in the symposium issue *Biol. J. Linn. Soc.* 1, in 1969!

In 1984 he and Stephen Hubbell (University of Georgia) created the Center for

Tropical Forest Science (CTFS), a worldwide network of collaborating institutions and research forests under the Smithsonian Tropical Research Institute. CTFS' core element is a large (15-50 ha) primary forest tree demography plot. There are over four million trees of four thousand species in twenty plots worldwide. This year CTFS has been funded for extension to temperate forests and thus the network represents the first and only global monitoring system for natural terrestrial ecosystems.

BRIAN GARDINER

Tercentenary News

During June the Society staged a number of exciting Tercentenary events. The first was a joint meeting with the University of Göteborg entitled **In the Wake of Linnaeus**. A large number of dignitaries and visitors attended a whole day of stimulating papers in the Society's Rooms before heading to Canary Wharf on a beautiful summers' evening for a wonderful champagne reception on board Götheborg III, a reconstructed East Indiaman en route back to Göteborg from its round the world trip. The papers will be published in a special edition of *Zoologica Scripta*. Next came our summer party in the Jodrell Atrium of the **Royal Botanic Gardens, Kew**. Again the weather was kind and we were able to enjoy drinks on the patio overlooking the pond, followed by a magnificent buffet supper (chez Linnean Society and Head Chef Nicholas Hind). Small groups were then able to visit behind the scenes of the Herbarium, the Library and the Jodrell Laboratory itself.



The Götheborg III
(© David Pescod)



The Kew buffet (© Jenny Edmonds)

This was followed by the tri-partite Anglo-Swedish symposium **Unlocking the Past** which is dealt with separately below. Next came the joint meeting with the Royal Society (18-19th June) on **The Evolution of Animals: A Tercentenary Celebration**. Organised so efficiently by Tim Littlewood and Max Telford, this meeting was a complete sell-out with over 350 delegates. The papers will be published in the *Proceedings of the Royal Society* and/or as a book. Then we visited the **Chelsea Physic Garden** at the beginning of July, for a guided tour by Fellow David Frodin,

and a delicious supper. Though the weather was inclement, to put it mildly, the evening was most informative and enjoyable.

Our final social event of the summer is the Tercentenary **Conversazione** which will be held on 29th September, starting in the Oxford Botanic Garden and finishing in the Oxford University Natural History Museum with a tour and supper.

I am most grateful to the many of our Fellows who have helped stage and host these events, and to all the Fellows who have supported not only these but all of the tercentenary celebrations so far.

Unlocking the Past – 11-15 June 2007

During June the Society joined with the University of Uppsala for a symposium entitled *Unlocking the Past*. This started in London, continued in Uppsala and then ended for a large number of Fellows in an excursion on the Island of Gotland. The aim was to explore the history of biological collections and their future use and relevance. Collections are of vital importance to the science of taxonomy, and the meeting aimed to link these materials to the science both as practised in Linnaeus' time and today by covering a wide range of topics associated with their past, present and future use.

On the first day in London papers covered the over-arching philosophy of Linnaeus' work, ranging from his work with plants, his wide correspondence, and his ideas about the society in which he lived and worked. The presentations covered *Apollos of systematic botany* (Pieter Baas); *The Linnaean Herbarium – past, present and future* (Charlie Jarvis); *The Linnaeus Link Project; linking past and present* (Diane Tough) and *Linnaean Landscapes; transforming Linnaeus' cultural context into a cultural heritage* (Mariette Manktelow). In the afternoon delegates enjoyed a guided tour of the Enlightenment Gallery at the British Museum. The second day explored the future of collections-based science, with speakers considering the future implications of Linnaeus's work, by covering topics ranging from *Plant phylogeny and Linnaeus* (Mark Chase); *Back to the future: Linnaean taxonomy in the digital age* (Charles Godfray); *Linnaeus 300+; a southern African perspective* (Gideon Smith) and *OCBILS and YODFELS; towards an integrated understanding of the evolution and conservation of biodiversity on old and young landscapes* (Steven Hopper). It concluded with guided visits to the Darwin Centre and the Rare Books Room of the Natural History Museum. Linnaeus clearly valued his collections and was aware of their relevance to answering key scientific questions posed during his day. Today's scientists are constantly discovering new ways to use these materials to address new scientific problems that are relevant to our current world.

After a day of travelling, the symposium reconvened in Uppsala where on the morning of the first day, cultural history was considered with



Linnaeus' Herbarium at Hammarby
(© David Edmonds)

The Restored Linnaeanum at
The Botanical Garden in
Uppsala. (© David Edmonds)



papers covering an *Eighteenth Century Back-ground to Linnaeus* (Marie-Christine Skuncke); facts and fiction surrounding *Linnaeus' houses in Uppsala* (Margareta Nisser

Dalman); the conservation of *Linnaeus' Iconic objects – Linnaeus' papers and books* (Per Culhead); and *De Horticultura Academica – gardening with Linnaeus in Uppsala* (Åsa Ahrlund). The afternoon's programme concentrated on Natural History and covered the collections of the *Linnaean mammals* (Anthea Gentry), the *Linnaean Lapland herbarium in Paris* (Bengt Jonsell), and the *Linnaean collections at Uppsala University* (Roland Moberg); the phylogeny of the flowering plants compared to the *Linnaean Sexual system* (Birgitta Bremer); *Modern aspects of taxonomic research* (Ulf Jondelius); *Vernacular plant names and binary nomenclature in Sweden around 1900* (Jenny Beckman); and *Early celebrations of Linnaeus* (Hanna Östholm). The day ended with a magnificent reception in the Orangery of the Linnaeus Garden, followed by an eighteenth century dinner accompanied by eighteenth century dancing and music. This culminated in *everyone* joining in the most amazing dance!

Excursions filled the whole of the second day, starting with an early morning coach ride to Hammarby, Linnaeus's country summer home. Here we were shown around the grounds, including his Herbarium in the woods, before viewing the interior of his house, complete with much of his furniture and artefacts, and the famous Ehret wallpaper. A visit to the Museum of Evolution at the University followed, then a tour of the University Botanic Garden, and finally a tour of the Linnaeus Garden and Museum (his home between 1743-1778). The day concluded with the open lecture by Charlie

Jarvis on '*The collector's urge; in the footsteps of Linnaeus the botanist*' given to a packed audience filling the whole of the Orangery.

We should like to thank all the speakers for their stimulating papers in both London and Uppsala; we hope that many will be published



Linnaeus' summer residence at
Hammarby (© David Edmonds)

and are looking into a special issue of *The Linnean* to hopefully include at least some of them. I am most grateful to the London guides at the British Museum (Brendan Moore) and the Natural History Museum (Diane Tough, Sandy Knapp and Mandy Holloway), and of course to Roland Moberg and Annika Windahl-Pontén for organising such a wonderful Swedish experience. The reception, dinner, and musical entertainment that Annika master-minded provided us all with a memorable evening which was especially fitting in the celebration of the tercentenary of Linnaeus not only reflecting his appropriate own period of time but also held in the Orangery of his Garden.

JENNY EDMONDS FLS

**In the steps of Linnaeus:
the Anglo-Swedish Excursion to Gotland, June 2007**

The symposium in Uppsala, described above by Jenny Edmonds, was immediately followed by the excursion to Gotland. Numbers had to be limited but the response was swift and enthusiastic, and the trip was completely booked soon after it was announced. The itinerary was excellently organized and led by Bengt Jonsell, with Roland Moberg and Eva Willén of the Svenska Linnésällskapet (Swedish Linnaeus Society) and Eva provided the party with a full and elegantly-written, illustrated guide. There were a further 32 of us in all, some professionally involved in life or earth sciences, but all with a keen interest in natural history. Most were from Britain, but Australia, New Zealand, Italy and USA were also represented.

Gotland, with its immediately adjacent neighbour of Fårö, [ö is Swedish for island, so I am trying to avoid the tautology of calling it an island] lies between Sweden to the west and Latvia to the east. It is 140 Km long and one of the largest of the islands of the Baltic. Its Hanseatic capital, Visby, with its intact mediaeval walls has been on UNESCO's World Heritage List since 1995. Along with many others in the party, we had not been to Gotland before, but I knew enough to expect something special. We were not disappointed. Beyond Visby, the landscape is flat to very gently rolling with occasionally rocky scarps. It is a largely rural panorama of villages, handsome Romanesque church spires, meadows, wetlands, airy woodlands and pine scrub. The flowers were so profuse in places that they lent a haze of their own intense colours – field poppy red, and Viper's bugloss blue – to the green of the meadows. Sometimes the landscape is lush, or sometimes, as on, Stora Karlsö and Fårö, it is more open, windswept and stirring, and probably pretty bleak in winter. The winding coastline is an unspoilt attractive mix of cliffs, beaches, rocks, old raised sea stacks and shingle tracts. Not long after



Cliffs on the west coast of Stora Karlsö.

we returned, Fårö suddenly jumped into worldwide news when the great Swedish film-maker, Ingmar Bergman, died, because this is where he lived, and Fårö was also a scenic inspiration for some of his films.

Our visit was specifically dedicated to Linnaeus' exploration of the island during July and August [modern calendar] of 1741. The English translation of his account of his Baltic journey (*Öländska och Gothländska Resa*), first published by the Society in the *Biological Journal* in 1973, has just been re-published in a fine new illustrated edition in collaboration with the Society (Edmondson, Ed., 2007). To those who associate Linnaeus largely with his botanical achievements, or even with his zoological work, it comes as a surprise perhaps, to find out just how broad-ranging were his interests and observations. In fact, like many other contemporary European travellers and explorers, his journey had a utilitarian purpose, because he had been officially charged to observe or seek out anything which might be of economic value (Stearn, 1973 in Edmondson, 2007). So Linnaeus' account includes fascinating details of Gotland's heritage and culture, its landscape, economy, geography, dialect, history and geology – and of course the plant and animal life. All of these things still help to make Gotland an outstandingly interesting, beautiful and peaceful place to visit today.



Linnaeus' "Stone Giants" (raised sea stacks) on Kyllaj, on the north-east coast of Gotland.

Our visit, while often focused on botany and conservation issues, picked up many of Linnaeus' themes as we followed much of his journey by coach and on foot, with Bengt Jonsell providing a then-and-now perspective by reading out delightful choice excerpts from Linnaeus' travelogue, matched to each locality. We visited meadows, woodlands, wetlands, sand dunes, ancient sea stacks, beaches of fossil coral, guillemot colonies, farm houses, and museums local and regional. Our visit was regarded as an official one by the Gotland community, so we also had functions to attend after our field excursions, and were made to feel very welcome wherever we went. Highlights included a dinner with the County Governor at her residence, a reception in the



Approaching the old marble quarries near Suderhamn, Stora Karlsö.

Botanical Garden in Visby, with a guided tour and the unveiling of a large wood-carving bust of Linnaeus, and a reception in the new County Museum in Visby which included the launch of the new English publication of Linnaeus' *Resa* mentioned above. We were generously hosted at various stops around Gotland by people who now live in some of the fine old farms where Linnaeus stayed or visited.

A personal highlight for me, was undoubtedly our visit to the almost uninhabited nature reserve of Stora Karlsö, about 6.5 Km off the south-west coast of Gotland, and only about 1.5 Km across at the widest. The sun shone and a cool breeze blew as we spent most of the day walking leisurely from shore to shore and back, over the gently rolling but austere clittery limestone plateau, and then around the rocky coast of the western half of the island. The diversity of flowers was impressive, including numerous orchids and important rarities, but as Linnaeus had also remarked, Stora Karlsö is also notable for its coral limestones. In fact, Gotland as a whole is world famous, amongst those interested in such things, for its fossils, especially corals, and its ancient reef formations. For Jill Darrell and myself, who have spent our careers studying corals and reefs, but who have never been to Gotland, this was like a pilgrimage. The shingle of the shore where we disembarked from the ferry on Stora Karlsö consisted almost entirely of fossils and these immediately caught the eyes of the group, for whom we happily provided a fossil identification service throughout the day. With permission from our local guide, we also managed to steal away briefly from the rest of the party to get a closer look at the reefs outcropping along a line of fine raised cliffs, complete with a natural arch, cutting across the central part of the island.

In the County Museum in Visby, we saw a model of the local church constructed



“Coral shore” at Kappelshamnsviken, north-west Gotland, where “each one stone was nothing but a coral”.



A windmill on Fårö near the ferry crossing.

entirely out of Gotland fossils! In fact, examples of Gotland's fossils can probably be found in almost every palaeontological museum in Europe and beyond. Arguably, Linnaeus set the trend by making his own fossil coral collections on Gotland, and he subsequently supervised a dissertation on them (Linnaeus & Foug, 1745). While giving birth to modern botany, Linnaeus also lived during the dawn of geology as a modern discipline, and he made other fascinating, and often still relevant, geological and geomorphological observations on Gotland, most notably with regard to the impressive raised beaches and exotic-looking ancient sea stacks. But the great age of its reefs (Silurian, approx. 444-416 Ma old) was only realized by later people. In fact, the nature and origin of these reefs are still being closely studied and discussed today. Differently from modern reefs, they were variously constructed by sponges, and cyanobacteria as well as the corals, and were inhabited by dense forests of crinoids (sea lilies), whose pink columnal plates give the local 'marble', once extracted from the quarries we visited on the south shore of Stora Karlsö, their attractive character.

Finally, some little vignettes. People (many of us well past our best crawling days) scabbling around in the sand at Ullahau (north-east of Fårö) looking for ant-lions (small but voracious neuropteran larvae) by blowing into the little funnel-shaped hollows they make as ant traps. Meadows with everyone spread out, heads down and rear-quarters up, photographing the flowers. The little glade at Ullahau, where we found a little cluster of *Linnaea borealis*, which Linnaeus, as the bridegroom in Scheffel's portrait, is holding in his right hand ("my flower"). Explorations of Visby's old city centre in the long evening light of midsummer at the end of each day, searching out the restaurants and bars.

Everyone's response to the trip was overwhelmingly enthusiastic. People also struck up many new friendships through both earnest discussions and hilarious banter. At times, the atmosphere brought back fond memories of student field trips. It was a wonderful multi-disciplinary experience, thanks to everyone who helped to create the visit, and which, with the good fortune of excellent weather too, made it a trip of a lifetime. Everyone else seemed to be saying the same thing as we dispersed into the streets of Stockholm at the end of the trip.

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BRIAN ROSEN FLS

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Development Report

The Society is making available its primary research material in digital formats to support taxonomic and conservation efforts worldwide as well as providing public pleasure and enjoyment. The CARLS Programme (Computerised access to the records of the Linnean Society) is moving steadily ahead and has made exciting progress over the summer. The Linnaean correspondence, consisting of almost 4,000 letters sent to Linnaeus from 600 correspondents worldwide, can now be viewed online as part of the Linnaean Correspondence Project (see the library report from Gina Douglas for more information).

Digital imaging of the 14,300 Linnaean herbarium specimens was completed in August and the final electronic files submitted to the University of London Computing Centre to be loaded into the new preservation service for the high-resolution images. These will be available online at the end of the year, together with their associated data. An integrated FSI Viewer (flash-based single source image) has been included and will allow for close-up inspection of the images and it will also be possible to view two specimens concurrently on screen.

Work on the digitisation of the insects is well underway and will form the second phase of the Linnean Collections online and the digitized images of Linnaeus' moths and butterflies will be available in early 2008. The content management system has been continually tested and updated over the summer by a core group and is now moving outwards for wider testing. We would be delighted if you would consider helping us testing this next stage. If you are available and would like to, please contact Julia Hoare at julia@linnean.org. Additional images will be added to the service as they become available and will ensure that the images are preserved, managed and accessible into the long term future.

The Society is continuing to develop its website and we are pleased to announce that Kate Longhurst has taken on the role of developing and uploading content. If you have items of interest for the news section do contact her at kate@linnean.org. The Collections Section has been developed to include many of the CARLS projects and the news, tercentenary events, media and events sections are continually updated and expanded. Do browse at www.linnean.org.

Excellent media coverage continues for the Tercentenary activities and a recent highlight was the excellent review in *Nature* (vol. 448:23) of *Order out of chaos: Linnaean plant names and their types* (Jarvis, C., 2007). The media coverage has been impressive and has raised the external profile of the Society worldwide. The Society is delighted to be associated with the Lapada Fine Art and Antiques Fair in Cheltenham in October. This event celebrates 'The Glory of the Flower – floral motifs in art and antiques', in honour of the Tercentenary.

The Society is now ready to move ahead to its next phase of development by making its remaining primary collections available online, providing new research and meeting facilities, and by making all floors and rooms of the Society fully accessible physically. To move forward and realise the next critically important stage of development, funding is sought to enable the Society to realise the above goals.

Various specific approaches have begun to appropriate funding bodies and we are now moving towards widening our funding applications. It will strengthen the force of the Society's appeal considerably if we can demonstrate a high level of support from our own Fellowship. The appeal has a target of £3,000,000 which will be used to:

- ◆ provide online access to the Fish and Shell Collections, the botanical collections of James Edward Smith now held in the new Smith Herbarium, and the extensive Archive Collections. Once realized, the complete Linnean Society collections will be systematically searchable online with full public access;
- ◆ restore and redevelop the newly-acquired rooms in the Burlington House Tower to provide a first class Central London meeting facility together with dedicated archive storage and research facilities; and
- ◆ ensure easy access to all the floors and rooms of the Society for the first time, particularly for those with mobility difficulties, through provision of a lift.

If you have any recommendations or suggestions for us to follow through, please let me know at Elaine@linnean.org.

ELAINE SHAUGHNESSY

Library

The involvement of the Library staff in Tercentenary events continued throughout June and July and we are still getting regular requests for images and assistance with articles featuring Carl Linnaeus and the tercentenary of his birth. An additional display case in the Reading Room has been put to good use throughout this period as it enables us to display larger volumes than before.



Linnean Society
Tercentenary Mugs
Created to celebrate the
300th anniversary of the birth of
Carl Linnaeus



£5

Available now at the Linnean Society
(collection only)

The planned engineering work (to install an air management system) and re-decoration of the Library Reading room is still on hold for various reasons. Instead of being shrouded in scaffolding and working under difficulties, we have been able to use our summer student help to clean and re-shelve the oversize fauna volumes and the multiple volume reports of expeditions and voyages. Elsewhere, planned work on drains in our East Basement journal stores has also led to journal re-shelving plans being modified and now it is the main run of “systematic” journals which will have benefited from cleaning and reorganisation to take some of the recent gifts of runs of journals, which have to be accommodated in the appropriate place. This year we have had help from Igor Sirotic from Croatia, Anna and Wesley Baudez from France, Oskar Breymeyer-Darski from Poland, Fernando Almansa Gil from Spain and Amy Boxshall, Bill Flowers, Isabel and Victor Mallet and Christina Woodger from the UK. Kristine Kozicki, from Canada, has also been helping with cataloguing and other tasks in the Library and we look forward to her return once she has recovered from an emergency operation.

Library use statistics for the period since the end of May will be given in the next issue. By then all those with internet access will be able to see the results of the various projects now contributing to the CARLS project. One of those already available is on-line access to images of the letters sent to Linnaeus and held by the Society. If you have not already explored these do follow the links from the Linnean Society web site to the Linnaeus Correspondence site and you will be able to read fascinating first-hand accounts from early women botanists such as Anna Blackburn, news of North American activities from John Bartram and Cadwallader Colden, Peter Collinson’s reminders to Linnaeus about unpaid bills and much more ! Biological specimens and drawings also feature in those letters, some curious, some beautiful. Just click on the small figures in brackets shown under “manuscripts” on the pop-up page for each letter.

We express our thanks as usual to all our volunteers, now tackling the mammoth task of creating order out of the Society’s own complex archive files. These document our history but reflect the idiosyncrasies of successive Executive Secretaries and Society Officers.

Thanks also to all who help us in keeping a wide range of journals available to readers by passing on material they do not wish to keep, or arranging for us to receive them direct. We would also like to thank the Centre for Ecology and Hydrology Dorset Station for presenting us with a portrait oil painting and a photograph of Captain Cyril Diver FLS.

Donations of books still have a large Linnaean element but we hope we have now caught up with acknowledging here the other gifts omitted from the previous issue.

GINA DOUGLAS

Recent Donations

Prof. Robert Anderson: Anderson, Robert, Grove, Richard & Hiebert, Karis, *Islands, forests and gardens in the Caribbean. Conservation and conflicts in environmental history*. 266 pp., illustr., map, Oxford, Macmillan, 2006. ISBN 978-14050107103.

Elina Antell: Linnaeus, Carl von, *Linnaeus’ Öland and Gotland journey 1741*. 296 pp. col. illustr., Uppsala, Gyllene Snittet, 2007. ISBN 978-91-633-0361-6.

Marie Bergström: Bergström, Marie, *The early adventures of Carl Linnaeus*. 37 pp. col. illustr., [Falun], Sensus Studieforbund, 2007. ISBN 978-91-976908-1-2.

Prof. R.G. Berry: Berry, R.G. (Ed.), *When enough is enough, a Christian framework for environmental sustainability*. 213 p., Nottingham, Apollos, 2007. ISBN 978-1-84474-180-9.

Lynda Brooks: Rosén, Bengt, *En vandring genom, DBW's Botaniska Trädgård i Visby*. 51 pp., col. illustr., Visby, Godrings, 2006. ISBN 91-631-8713-0.

John Burton: Tahourdin, C.B., *Native orchids of Britain*. 114 pp., b/w illustr., Croydon, H.R.Grubb, n.d. [1925].

Caroline Chevallier: Chevallier, Caroline, *Från stubbuton rot till anselight träd/ From a stubborn root to a notable tree*. (Exhibition catalogue, Ups. Univ. Bibliotek N. 46) 47 pp. illustr., (with DVD) Uppsala, Uppsala University, 2007. ISSN 0502-7462.

C.J. Clegg: Clegg, C.J., *Biology for the IB Diploma*. 436 pp., col. illustr., CD-ROM., London, Hodder Murray, 2007. ISBN 975-0340-92652-9.

Prof. David Cutler: *Byggnadshytten på Gotland 2005-2006*. 104 pp., Visby, Byggnadshyttan på Gotlands, 2007. ISBN 91-974679-2-8.

Edelstam, Caroline, *Ängar*. 16 pp., Jonköping, Jordbruksverket, 1995.

Lundqvist, S. & Moberg, R., *The Peter Kalm herbarium in UPS: a collection of North American plants*. 62 pp., Uppsala, Botanical Museum, 1993 [Thunbergia, 19].

Dr Gordon L. Herries Davies: Davies, Gordon L. Herries, *Whatever is under the earth: the Geological Society of London, 1807 to 2007*. 356 pp., illustr., London, Geological Society, 2007. ISBN 978-1-86239-214-4.

Sarah De'Ath: *Swedish Book Review : Linnaean Tercentenary issue, 2007:1*, Norwich, University of East Anglia. ISSN 0265-8119.

Gina Douglas: Cordier, Samuel & Pugnère, François, *Jean-François Séguier, Pierre Baux: lettres 1733-1756*. 192 pp., illustr., Avignon, Editions Barthelemy, 2006. ISBN 978-2-87923-237-9.

Dr John Edmondson: Sabbach, Karl, *A rum affair*. 223 pp., London, Penguin, 1999. ISBN 071-3992778.

Freshwater Biological Association: Langton, P.H. & Pinder, L.C.V., *Keys to the adult male Chironomidae of Britain and Ireland*. 2 vols., illustr., Ambleside, FBA, 2007. ISBN 978-0-900386-75-6.

The estate of **Maud Godward:** John, B. & Lawes, K.R., *The meiotic system (Protoplasmotologia Bd. Vi, F1.)* 335 pp., illustr., Vienna, Springer Verlag, 1965.

Belar, Karl, *Der Formwechsel der Protistenkerne*, 420 pp., illustr., Jena, Gustav Fischer, 1926.

Schussung, Bruno, *Handbuch der Protophytenkunde Bd. 1*, 636 pp., illustr., Jena, Gustav Fischer, 1953.

John Griffiths: Griffiths, John, *Tea, the drink that changed the world*. 384 pp., col. illustr., London, A. Deutsch. 2007. ISBN 978-0-283-00312-5.

Hillier's: Brittain, Julia, *Plants, people, places*. 192 pp. Newton Abbott, David & Charles, 2006. ISBN 978-0-7153-2421-9.

Plant names explained, 224 pp., Newton Abbott, David & Charles, 2005 ISBN 978-0-7153-2188-1.

Marita Jonsson: Snitt, Ingalill & Jonsson, Marita, *Swedish ! : light, shape, landscape*. 254 pp., col. illustr., Stockholm, Albert Bonnies Förlag, 2007.

Dr Sven Lundqvist: Lundqvist, Sven, *Thus the stones speak, Carl Linnaeus*. 8 pp. (unpaged) Uppsala, SGU Geological Survey of Sweden, 2007.

Richard Milner: Sarmiento, Esteban, G.S. Sawyer & Richard Milner, *The last human, a guide to 22 species of extinct humans*. 256 pp., col., illustr., maps, New York, Nevrumont Publishing and Yale U.P., 2007. ISBN 978-0-300-10047-1.

MIT Press, Reid, Robert G.B., *Biological emergences: evolution by natural experiment*. 517 pp., Cambridge Mass., MIT Press, 2007. ISBN 978-0-262-18257-7.

Prof. Geoff Moore: Moore, P.G., *Marine faunistics in the Clyde sea area: fieldwork in cultural context prior to 1850*. 57 pp., illustr., (Occ. Publ. 9) Millport, Isle of Cumbrae, University Marine Biological Station, 2007.

Dr E. Charles Nelson: Tsintides, Takis Ch., *The endemic plants of Cyprus*. 123 pp., col. illustr., Nicosia, Bank of Cyprus, 1998. ISBN 9963-42-067-2.

Kenneth Nyberg: Hodacs, Hanna and Nyberg, Kenneth, *Naturhistoria på resande fot: om att forska, undervista och göra karriär i 1700-talets Sverige*. 264 pp., Lund, Nordic Academic Press, 2007. ISBN 978-91-89116-92-5.

Prof. George Pilleri: Pilleri, Giorgio, *Kramljanjeo medicinskiisol. Autobiografija 1925-1995*. 541 pp., illustr., Trieste, 2007. ISBN 978-88-7342-104-7.

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Karen Reeds: Givens, Jean A., Reeds, Karen M. & Touwaide, Alain, Eds., *Visualizing mediaeval medicine and natural history 1200-1550*. 278 pp., illustr., Aldershot, Ashgate, 2006. ISBN 0-7546-5296-3.

American Swedish Historical Museum, *Come into a New World: Linnaeus and America*. (exhibition catalogue) 26 pp., Philadelphia PA., American Swedish Historical Museum, 2007.

Paula Robbins: Robbins, Paula Ivanska, *The travels of Peter Kalm, Finnish-Swedish naturalist, through colonial North America 1748-1752*. 213 pp., Fleishmanns New York, Purple Mountain Press, 2007. ISBN 978-1-930098-80-0.

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Lammers, Thomas G., *World checklist and bibliography of Campanulaceae*. 675 pp. Kew, Kew Publishing, 2007. ISBN 978-1-84296-186-0.

Pedersen, Henrik Aerenlund & Faurholdt, Niels, *Ophrys, the bee orchids of Europe*. 297 pp., col. illustr., maps, Kew, Kew Publishing, 2007. ISBN 978-1-84246-152-5.

Sunderland, Terry, *Field guide to the rattans of Africa*. 66 pp., col. illustr., Kew, Kew Publishing, 2007. ISBN 978-1-84246-180-8.

The Editors: Sjögren, Anne, Moberg, Roland and Windahl-Potén, Annika, Eds., *Låt inte råttor eller mal fördärva... Linné's samlingar i Uppsala*. (with English summaries and captions) 225 pp., col. illustr., Uppsala, Uppsala University, 2007. ISBN 978-91-7382-824-6.

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Prof. H.S. Torrens: Giormani, Virgilio & Torrens, Hugh S., *Il Conte Alvise Zenobio (1757-1817) un patrizio Veneto tra Agio e avventura*. 267 pp., illustr., Venice, Inst. Veneto di Scienze, Lettere e Arte (Memorie Vol. 146), 2006. ISBN 88-88143-73-4.

Dr Ernst Vitek: Vitek, E. (and others), *Die Pflanzenwelt der Osterreichischen Alpen*. 352 pp., col. illustr., Vienna, Naturhistorisches Museums Wien, 2007. ISBN 978-3-902421-21-0.

Edward Wilson: Wilson, Edward (Ed.), *The Downright Epicure, essays on Edward Ashdown Bunyard (1878-1939)*. 400 pp., illustr. Totnes, Prospect Books, 2007. ISBN 978-1-903018-48-4.

From the Archives

As a volunteer in the Library at Burlington House, one of my main tasks is the transcription of nineteenth century letters. I am working on two series.

The first is 167 letters from William Kirby to Alexander MacLeay, both entomologists. In amongst the technical correspondence are various comments on contemporary events:

9th November 1805

“I have to request of you to procure me, if you can, a good head of the late Lord Nelson – any that is judged to be a good likeness will do. How greatly does the loss of that Naval hero deduct from the joy we should otherwise feel from the signal victory which closed the glorious career of his eventful life. Though a young man he has lived long, if we may judge from what he has done. As this appears to have been the greatest Naval Battle ever fought, so was he I think, the greatest Naval commander that ever lived. His first great exploit, the Battle of Aboukir* raised the spirits of the European

States, & produced a most extraordinary sensation – his second, the Battle of Copenhagen, broke up the Northern Confederacy, & this which exceeds them will be attended I trust with effects equally beneficial – & I hope the Corsican, in spite of the success of his outset, will still meet with his deserts – we are told from the highest authority “The Prosperity of fools shall destroy them “ – I think that will be his case.”

19th Nov. 1805

“We were grieved to see this morning in the list of the killed on board the Royal Sovereign a Cousin of Mrs Kirbys Lieut. R. Green of the Marines, our loss in that never to be forgotten engagement, is considerable, though not as heavy as at first reported – this was a very fine amiable youth – one of the two sons of an unfortunate widow – the other is now in the Companys service in the East Indies – he went out as a Cadet, & is getting forward. We are anxious to know whether the report of an alliance offensive & defensive between the Emperor Alexander & the King of Prussia against the Corsican is well founded or not.”

10th Jan. 1806

“I received a letter this morning from the distressed Widow of a cousin of my wives, who lost her Eldest Son in the later glorious battle of Trafalgar, stating that she had been advised to apply for a Gratuity, granted to the near relations of the slain by the Navy office. It happens unfortunately that the Register of her birth was not to be found[†], but her Aunt, from her memory, signed a certificate to signify that she would not be fifty before May next, which it seems is the limited Age under which no gratuity is granted. Since this she has received a letter from her brother containing these words “My memorandums tell me that should kind Providence be pleased to grant me two months more I shall compleat my 52 year, & as I had been taught to believe my sister was only one year younger than myself, I have not a doubt but the Error may be corrected.” Her husband died insolvent leaving her & two sons. Her name is Mary Green: her income very little more than £50 per ann, a great proportion of which she has been under the necessity of expending this year upon the premises from which she arises. The Eldest Son was Robert Green 2 Lieut. Of Royal Marines on board the Royal Sovereign – he was killed early in the Action behaving very gallantly, as his brother learns from a Mr Oliver the Purser of the ship. As there appears great uncertainty whose statement is accurate the Aunts or the Brothers with respect to her age, the board will surely lean to the side of Mercy, especially as the lowest account makes her so near the age required. Application was made in the business to Messrs Foulmin Agents – who sent the certificates to be signed, & acquainted her with the result. She wrote to me to know what to do – being myself totally unacquainted with the business – & thinking over my friends, you immediately occurred as from your official situation in the Transport & Navy Offices & best qualified to direct her what to do, or make some enquiries for her. Her remaining son, a promising youth, went as a Cadet to

* generally called the Battle of the Nile.

†The General Register did not start until 1837. Previously ‘birth records’ were usually baptismal dates.

India 3 years ago – we hear he is now adjutant to the 6th Regiment Native Infantry, a proof of his good conduct.”

MacLeay was not a punctual correspondent and from time to time Kirby complains about his letter not being answered. Here Kirby berates MacLeay for not replying to his letters or acknowledging his Christmas gift of a turkey.

6th March 1809

“My dear Friend

It is so very long since I received any thing like a letter from you, that I begin to grow quite impatient for that pleasure. If rarity adds to the value of any thing, you are determined that your letters shall not be deficient in it, & not come far short of a black swan. But I cannot by any means acquiesce in this mode of adding price to your correspondence, for the more of your letters I receive the more highly I prize them. But mum I find is your word, by which you give me to understand that nothing has gone wrong or miscarried. Thus if you are informed by a correspondent that a Turk will add to your Dinner party at Xmas time – Mum tells him that the stranger arrived safe & was admitted. If he sends you a box of insects, Mum says I have got them. If he asks you a hundred question of ever so much consequence, Mum answers them all. I looked upon the back of the Notocleus you was so good as to send me it is an insect whose back is remarkable you know and I saw Mum written in very legible characters upon every one of them. Now if the Turk or the insects had miscarried or no letters for 12 months arrived from me – I dare say Mum would have kicked out of doors, & I heartily wish he was, (I say he because I am sure this personage is not of the female sex) & I should have letters in plenty.”

The other set of letters are a number of bound volumes addressed to William Swainson by many different correspondents on different aspects of natural history. On this occasion William Broderip, a conchologist, had just paid to see a ‘mermaid’ on display in London:–

11th November 1821

“Touching the mermaid who has beguiled me of my shilling (NB. ‘tis shewn at the turf Coffee House St. James’s Street) I shall say not more than this, which you may put into your magazine if you will.

Cooking Extraordinary

To make a Mermaid

Take one of the ape kind, or if one of these be not at hand, an emaciated Tartar child or an emaciated Japanese Dwarf old woman will do. Divide it, him, or her, immediately below the lower ribs: save the head & upper extremities. Push the head as far forward as possible, & if there is any difficulty in doing this, dislocate one or two of the upper cervical vertebrae. Distort the child’s features & mammae quant. suff. Draw a few of the teeth & supply their places with some belonging to different animals – it will be as well to have some which have belonged to a seal or animal of prey. With this caution you may garnish the mouth & face according to your fancy.

Take the lower half of any fish of suitable length (cod will do) – skin it – stuff the skin (you may stuff yourself with the rest) leaving a space for the insertion of the upper part of the ape child or woman. Draw the empty part of the skin over the said upper half in the fashion of a glove or boot. There must be no suture; but the two parts must, after such insertion be connected with a cement so coloured as gradually to harmonize with the colouring of the flesh and fish. Add a fin or two according to your taste (towards the belly part is best). Dispose the upper extremities in as pathetic a posture as you can. Give the tail a significant curl – dry all together. Serve it up in nearly upright posture, resting on the tail, under a glass cover. Leave the guest to season with credulity according to his gullibility. Treated in this way it will make an excellent hoax which will keep for a month or two.”

JOHN SELICK FLS

Correspondence

From JOHN CLOUDSLEY-THOMPSON HON FLS

Manson, Darwin and the Linnean Society

The monumental discoveries of Sir Peter Manson, outlined in John Marsden’s pertinent article (*The Linnean* 23(3):45-51) were recounted in a lecture by his son-in-law, Sir Peter Manson-Bahr which I attended during the mid-1950s. In 1877, whilst working in Amoy, south China, Manson had confirmed the hypothesis that a parasitic nematode *Wuchereria bancrofti* was responsible for the dread human disease elephantiasis. The following year he established the role of the mosquito *Culex quinquefasciatus* (= *fatigans*) as its vector. These results were published in the China Customs Medical Report of 1878 and were relayed to the Linnean Society by Manson’s friend Spencer Cobbold (*Linnean Soc. Trans. Zool. (Ser. 2)* 11:367-388). In his letter to Cobbold, Manson described his discoveries with extreme modesty: ‘Men, like myself in general practice, are but poor and slow investigators crippled as we are with the necessity of making our daily bread’. Venita Jay (2000, *Arch. Path. Lab. Med.* 124(11):1594-5) gives a fascinating account of a man whose scientific inquiries ‘were aided only by his extraordinary will and curiosity, and his microscope’.

Manson fed mosquitoes on the blood of his servant Huito, who suffered from elephantiasis, and later found microfilaria in their crops (or “stomachs” as these are often termed by medical entomologists). He found a nocturnal periodicity in the appearance in the blood of the human host, and calculated that there might be as many as two million microfilariae in a patient’s blood circulation from shortly after sunset almost until midnight – the hours during which *Culex* mosquitoes normally feed.

In order to confirm that adult filarial worms were indeed present in the lymphatic system as first reported by Joseph Bancroft of Brisbane, Manson needed some fresh human tissue. According to Manson-Bahr (in his lecture) Manson agreed to give not less than a silver dollar to an old lady, whose husband was on his death bed, if she would allow him to take a small sample from the corpse before the funeral. According

to Venita Jay, this sample was from the scrotum. A decade or two before the Boxer Rising (1898-1900) there was a strong anti-foreign movement in China. (The rebels who called themselves “Righteous and Harmonious Fists”, adopted boxing and various rituals, accompanied by magical herbs, which they believed would render themselves immune to foreign weapons.) While Manson was taking his sample, the news spread that a “foreign devil” was violating the corpse of a Chinese citizen, and an angry crowd gathered. So Manson was lucky to escape unharmed from the back door of the house!

Manson immediately went to his laboratory and inspected a section of the specimen through the microscope. To his delight, he saw wriggling adult nematode worms. Then he went home to be greeted with the joyous news that Mrs Manson, who was pregnant, had given birth to a daughter during his absence. This daughter later became Philip Bahr’s wife. The pair subsequently changed their name to Manson-Bahr.

Unlike *Plasmodium* spp. which are only transmitted to human beings by anopheline mosquitoes and the yellow fever virus whose sole host is *Aedes aegypti*, *W. bancrofti* can be disseminated by several species of *Culex*, *Aedes* and *Anopheles* as well as other genera of mosquitoes. In Fiji, Samoa, Tonga and the Cook Islands there is a non-periodic variety or species of parasite with different transmission and epidemiology. This co-exists in the Philippines with the usual periodic form of *W. bancrofti*.

In 1894, Manson suggested that malaria might well be transmitted by mosquitoes (an idea that stimulated Sir Ronald Ross into elucidating the life cycle of the malarial parasite). Five years later, Manson’s pioneering efforts led to the establishment of tropical medicine as a distinct medical discipline, and culminated in the foundation of the London School of Hygiene and Tropical Medicine, the first of its kind. Thus, by an extraordinary coincidence, only 20 years after publication of the Darwin-Wallace paper, another of the most significant biological concepts of all time was aired at the Linnean Society. This, too, like the Darwin-Wallace papers, was read in the absence of its author.

Erratum: The authorship of the Picture Quiz in *The Linnean* 23(2) April 2007 should have read: David Smith and George Fussey (Ed.).

The Brogdale Lecture 2006
EDWARD BUNYARD, F.L.S.
1878-1939¹

EDWARD WILSON, FLS, FSA

Worcester College, Oxford

When I read the book, the biography famous,
 And is this then (said I) what the author calls a man's life?
 And so will some one when I am dead and gone write my life?
 (As if any man really knew aught of my life,
 Why even I myself I often think know little or nothing of my real life,
 Only a few hints, a few diffused faint clews and indirections
 I seek for my own use to trace out here.)

(Walt Whitman, 'When I Read the Book',
Leaves of Grass, 1891-2)

About a quarter of a mile from the offices of the Linnean Society, 63 St. James's Street used to be occupied by the Royal Societies Club. The Club no longer exists and its records have vanished. However, we know that it was founded in 1894 'for the association in Membership of Fellows and Members of the principal Learned Societies, Universities, and Institutions of the United Kingdom, India, and the Colonies; Academicians and Associates of the Academies, together with persons distinguished in Literature, Science, and Art, with the object of affording facilities for social intercourse and re-union, while furthering the objects and interests of the Learned Societies' (*Royal Societies Club*, London, 1914, 11; copy in the Bodleian Library, Oxford). Its members included A.C. Benson, Louis Blériot, Lord Curzon, Sir Edward Elgar, Sir Arthur Evans, Lord Halsbury, Thomas Hardy, Lord Kitchener, Nansen of the Antarctic (Captain Scott had been a member), Ivan Pavlov, and Theodore Roosevelt; obviously not all were of this stature – one was even a Fellow of Worcester College, Oxford – but it was an impressive body. Edward Bunyard's name does not appear in the 1914 List, and we only know of his membership because it was in the room he had taken at the Club's premises that he shot himself on 19 October 1939.

His entrée to the Club must have been as a Fellow of the Linnean Society: proposed 19 February 1914; elected 19 March 1914; admitted 4 June 1914 (*Proceedings of the Linnean Society of London*, 126th session (1913-14), 11, 12, 68). Though I can trace only one paper, 'On the Origin of the Garden Red Currant', delivered to the Society on 4 May 1916 (see the brief report in *Proceedings...*, 128th session, November 1915 to June 1916 (October 1916), 13), he played a considerable part in its administration, being first nominated a new member of the Council on 3 April 1924 (Council Minute Book no. 10; 236) and confirmed on 1 May 1924 (*ibid.*, 239); he attended his first Meeting of the Council on 5 June 1924 (*ibid.*, 244). He served from 1924 to 1927, attending 20 Meetings and missing 13 – his reason for missing the Meeting of 6 May

1926 still has a contemporary ring: 'My experience of driving through the South London traffic yesterday evening will last me for some little while' (Letter of 5 May 1926; Incoming Correspondence Guard Book, vii, 200). He was thrice elected as one of the Auditors for the Council: 2 April 1925, 15 April 1926, and 7 April 1927 (Council Minute Book no. 10; 271, 314, 363); he was appointed to the Library Committee on 9 June 1927 for one year (*ibid.*, 375), and thereafter continuously from 6 June 1935 until his death (Council Minute Book no. 12; 27, 94, 153, 208, 265).

To understand that death, both the circumstances of near bankruptcy and the response of retreat rather than confrontation, I think we must look not only at Bunyard's own life but to his inheritance both genetic and nurtured; it will not seem strange in this institution to account for the present in these terms. Edward Ashdown Bunyard was born on 14 December 1878 into the great Kentish nursery firm of Bunyard, founded by James Bunyard in 1796. The early history of the firm is described in an astonishingly frank and revealing work by Edward's father, George: *The History of the Bunyard Firm from 1796 to 1911* (published privately, Maidstone, 1911); its candour accounts for the printed dedication, 'I dedicate this private [underlined in ink twice] family history to my eight children. George Bunyard, V.M.H. Maidstone, February, 1911.' The only copy I know, now in the Centre for Kentish Studies, Maidstone, is inscribed in the hand of George Bunyard 'Janet Bunyard' (1882-1958), one of Edward's sisters. James Bunyard (d. 1844) had, besides two daughters, three sons: James (the eldest), Thomas (George Bunyard's father; Edward's grandfather), and Charles. Of James, George writes:

James (Uncle Jim) ran through seven thousand pounds in cash, gifts and loans, from Grandfather, and then became a drag on Father till he died under my care, (*History*, 9)

and of Charles:

Charles was a handsome, dressy man, he was quite domineering in his manner, having married money with his wife (Miss Bodman), kept a carriage and pair in London, and did the swagger, but unfortunately lived beyond his means, and committing forgery (at that time a hanging offence, I believe), bolted – no one knew where – and was never heard of again. (8)

James Bunyard's second son, Thomas, George's father, though neither a spendthrift nor a flash crook, simply lacked energy and financial prudence:

Father was what may be called a worthy man, with no failings, honorable and respected, but he wanted that gift of leading and foresight so needful in our business, and contracted the habit of trusting those about him in both selling and buying, more than any master should. His health inclined him more to retirement and taking things easy than to any sustained effort in a business direction. (11)

George (born 5 February 1841) had four brothers: Thomas (Tom), the eldest; John Butler (Jack); Frederick, and Harry. Though George had come into the firm aged 14 in 1855, Tom was apparently tactless and quarrelsome, and for a time went away to London. However in 1863 (p.17) 'Father took Tom and myself into partnership, under the name of Thos. Bunyard & Sons' (p.17), Tom working land at Ashford and George at Maidstone. But 'After a few years Father was unable to do much, and would not second our endeavours; so that I drew up an agreement whereby he retired, and Tom and I jointly agreed to pay him £150 a year, and to continue this to Mother and sister



Edward A. Bunyard, FLS

This photograph is reproduced from one which appeared in *The Journal of Pomology and Horticultural Science*, XVII, no. 4, January 1940, facing p.294. However, it had appeared earlier in *Amateur Gardening*, XLIX, no.2513, 2 July 1932, p.188.

Mary Ann for their joint lives' (p.18). Alas, Tom's book-keeping was slipshod, he broke agreements, 'His wife was extravagant' (p.18), and then the youngest brother, Harry, borrowed a large sum at crippling interest. The other brothers tried to help, but in 1879-80 'the old firm had to go into liquidation, pulling down Jack in London, and crippling Fred [a bookseller, stationer, and printer], but he managed to get through; Harry, like a coward, "bunked" to Spain' (p.19). George again tried to help Tom, 'and, had he then lived within his income, all would have been well; alas! he did not do so, and, after several years of bother and help, I was obliged to make him bankrupt' (p.20).

Being a fourth generation Bunyard was in many ways a terrible inheritance. James (junior) was a wastrel, Charles and his nephew Harry each fled from financial disgrace, and both Thomas senior and Tom junior were without any business acumen. Edward Bunyard's suicide can be seen as the extremest form of Charles's 'bolting' and Harry's 'bunking'. That Edward should have died nigh bankrupt – the probate document of 1 February 1940 gives his net wealth as a mere £311.2s.3d. – is not surprising, and whatever the genetic contribution to such an outcome, the gift of his father's *History* to each of his children would have established this lineage as a permanent conscious record. As we trace Edward's biography, it is a lineage of which

we too shall have many reminders; Fred Stoker (c.1879-1943) was to phrase it well in his obituary for the Linnean Society:

...he never struck me as bearing the insignia of a business man. His cheerful equanimity, breadth of vision and mellow wisdom spoke rather of the scholar than the trader; his gentle tact and conversational range indicated contact with literature rather than with balance-sheets. (*Proceedings of the Linnean Society*..., 152nd session (1939-40), Part 4 (1940), 362)

That his father, George, should have been such a hard-working, ambitious, successful, and necessarily ruthless nurseryman who recovered from a £12,000 loss (*History*, p.22) to establish a large, prosperous, and world-famous firm is an indication that in psychological terms genetic inheritance need not be determinative; as George Eliot put it in her bracing way: 'It always remains true that if we had been greater, circumstance would have been less strong against us' (*Middlemarch*, chap.58). Of course, George Bunyard must have been an inspiring example – in 1880 he joined the Fruit Committee of the Royal Horticultural Society (as Edward was to do); in 1883 he was one of the chiefs at the Apple Conference at Chiswick; in 1896 the Fruiterers' Company presented him with the Freedom of the City of London for his part in the Great Fruit Show at the London Guildhall in 1890 (these details from *History*, 22-23); in 1897 he was in the first 60 to receive the Victorian Medal of Honour (as Edward never did); in 1906 he became Master of the Fruiterers' Company; he was the author of a number of books and pamphlets (though nothing like Edward's *œuvre* of over 400). And yet...I am struck by the fact that whereas earlier the firm had been James Bunyard & Son, and then Thomas Bunyard & Sons, it never moved beyond George Bunyard & Co.; it never became George Bunyard & Sons, still less did it become after George's death in 1919 Edward and Norman Bunyard [Edward's brother in the firm] & Co. It remained George Bunyard & Co. until its close in the 1960s. Sometimes good examples can be as overwhelming as bad.

But lest this lecture begin to resemble *Tristram Shandy* in which the hero is not born until volume iii, I will return to Edward's birth in 1878. He was one of ten children, five boys and five girls, born to Katharine Sophia née Ashdown, from whom Edward took his second name, though two boys died in childhood. Of his upbringing we know nothing except that the *Kent Messenger* in its report of his death says that 'he was educated privately, as he was a delicate boy' (21 October 1939, 4). His books show him as extraordinarily well-read, and this must have begun in childhood. No university education followed for he entered the family firm aged 17 on 15 September 1896, on the anniversary of its founding by James Bunyard. George Bunyard had made this a two-day celebration with a lavish luncheon, exhibitions of fruit, vegetables, and flowers, a magnificent Fruit Trophy Car, and a number of concerts. One part of George's address was charged with emotion; the *Gardeners' Magazine* reported:

He felt he could not say all that it was in his heart to say,... Mr. Bunyard concluded by stating that his son had that day come into the business, as the first of the fourth generation of Bunyards'. (19 September 1896, 648)

At the time, this carefully orchestrated event must have been alive with promise; in October 1939, faced with the bankruptcy from which his father had saved the firm, it must for Edward have been an accusatory memory.

The *Kent Messenger* in its report of his death said that he ‘had lived a secluded life in a bungalow on the nurseries at Allington’ (21 October 1939, 4), but this was quite wrong. In a wireless broadcast entitled ‘Novelties from the Kitchen Garden’ in the ‘In Your Garden’ series of the Radio Gardener, Mr. C.H. Middleton, Sunday 2 April 1939, Bunyard told Middleton that ‘I suppose I can date my first adventures among vegetables to the year 1900 when I went to live in France. My hosts were an old couple and Marie the cook’ (*The Listener*, 6 April 1939, 749; the typescript of the broadcast, now in the BBC Written Archives Centre, Caversham Park, Reading, has an extra and typically Bunyardian sentence: ‘All cooks were called Marie in France at that time’). He must have been 21 when he went; *The Gardeners’ Chronicle* obituary says, ‘As a young man, Mr. Bunyard spent some time in France, where he studied French nursery practice and became a fluent speaker of the French language’ (28 October 1939, 274). He acquired through repeated visits a profound knowledge of France, its gardens and gardeners, its nurseries, and its food and wine. *The Gardeners’ Chronicle* obituary just quoted also says that Bunyard ‘studied and spoke German’ (*ibid.*, 274), and an article by Bunyard in the same journal shows that he had been to Germany by at least the age of 33: ‘When in Germany in the autumn of 1912...’ (23 November 1918, 205). His travels also included Switzerland and Luxembourg, the west Pyrenees, and even South Africa, then much visited by plantsmen. But his great love besides France was Italy, a love which arose after he had written an out-of-the-blue letter to Norman Douglas, living in Florence, expressing admiration for Douglas’s *Alone* (1921); the first of several visits took place in 1922, and the friendship with Douglas deepened through further visits and correspondence throughout the rest of his life. One outcome was the article, ‘Some Early Italian Gardening Books’ which: ‘presents the fruits of a hurried search in Italian bookshops and street barrows, a pursuit, it may be said, demanding some patience and an entire disregard for dust’ (*Journal of the Royal Horticultural Society*, xlviii (1923), 177). Another motive for Italian travel was plants, and Graham Stuart Thomas says of the rose *Brunonii*, ‘La Mortola’, that it ‘was brought by E.A. Bunyard from the famous garden [owned by the Hanbury family] whose name it bears’ (*Climbing Roses Old and New*, London, 1983 edn., 33).

The pursuit of old books, however, had begun long before the Italian visit of 1922. The brief biography of Edward Bunyard in the *Journal of Horticulture* of 1910 had noted that ‘one of his several hobbies is the collecting of old books dealing with fruit culture’ (20 October 1910, 369), and his two early articles in the *Journal of the Royal Horticultural Society* of October and December 1911, listing illustrations of apples and pears, draw extensively on English and European books of the 18th and 19th centuries. By 1927 the *Gardeners’ Chronicle*, in ‘An Afternoon with a Pomologist’, says that Bunyard ‘has made his home in the midst of some four hundred acres of fruit trees at Allington, and formed a library of books on fruit and fruit-growing, the equal of which is not to be found elsewhere’ (anon., 10 September 1927, 213).

EAB’s own first written – as distinct from photographic – publication (he had contributed the stylish photographs of roses to his father’s *England’s National Flower*, Maidstone and London, [?1904]) was his paper ‘On *Xenia*’ (‘A supposed direct action or influence of foreign pollen upon the seed or fruit which is pollinated’: *OED*), delivered, when he was 27, on 1 August 1906 at the Third International Conference on

Genetics, and published in the *Report* of the Conference edited by W. Wilks for the Royal Horticultural Society in 1907. Though both Edward and George Bunyard were invited guests (*Report*, 22-23), only Edward gave a paper; it is remarkable that someone who was educated at home and entered the family firm at the age of 17, should have been sufficiently learned and known in the field of Mendelism to be invited to deliver a paper at an international conference; neither time nor my competence permits me to discuss it now, but it is considered by Professor Simon Hiscock in *The Downright Epicure* (see footnote 1).

Of the three Bunyard brothers who survived into adulthood, only two went into the firm: Edward and (George) Norman (1886-1969); the third, Richard Geoffrey (1883-1973), emigrated to Canada where he was an architect (*Kent Messenger*, 21 October 1939, 4). In 1908, when Edward was approaching 30, the *Journal of Horticulture* noted: 'Mr George Bunyard has the assistance of his two sons [oddly ignoring Richard], the elder of whom, Mr. Edward Bunyard, is now a partner in the company. Mr. Edward bids fair to emulate his father's achievements as an accomplished pomologist' (29 October 1908, 437). Two years later the same journal records: 'Now that Mr. Bunyard, V.M.H., is upon the borders of his seventieth year a considerable part of the business conduct of the firm...devolves upon the elder of his two sons' (20 October 1910, 369). In 1915 the *Journal* notes that both Edward and Norman are directors, with Edward having responsibility for fruits, shrubs, and trees; especially noteworthy is its comment on Edward's pursuit of horticultural connoisseurship rather than profit: 'More interesting, if not more profitable from a business point of view, Mr. Edward Bunyard has travelled widely in Europe to find and bring home the best of the shrubs and trees that the continental nurseries afford, and he has drawn stock from all the principal distributing nurseries of the civilised world' (25 February 1915, 143); this contrast sounds throughout Edward's life.

Presumably the health reasons which caused him to be educated privately account for his not serving in the First World War, unlike his brother Norman who was demobilised, a victim of mustard gas, in 1919. That year saw two other significant events. On 22 January George Bunyard died, aged 77, a victim of the influenza epidemic; the nursery as he knew it was to last only another twenty years. The end of that year saw the first issue of the *Journal of Pomology*, founded by EAB and edited by him until July 1924; his own articles are all in the first three volumes, though he also published a few reviews in it thereafter, and he was still on its Publication Committee at his death. This was a notably productive time in Bunyard's life, both professionally and personally. In 1920 in his 42nd year, there appeared *A Handbook of Hardy Fruits...Apples and Pears*, with the second volume on other fruits coming out in 1925; bookplates in the copies held by the Linnean Society record the gift of both volumes by the author on 24 November 1925. The *Handbook* is the product of both a practical fruit-grower who raised an immense stock of varieties of the fruits and a scholarly bibliophile with a detailed knowledge of works on fruit in several languages. It is a magisterial *opus*, still required reading, and indeed reprinted in one volume by Picton Publishing in 1994; Dr. Joan Morgan discusses it further in her chapter on Edward Bunyard as a pomologist in *The Downright Epicure*.

In January 1923 the Royal Horticultural Society announced the administration

of a scheme for 'The Testing of Varieties of Hardy Fruit for Commercial Purposes' under the chairmanship of the geneticist, William Bateson (1861-1926). There was a committee of ten – five representatives from the Ministry of Agriculture and five from the R.H.S., of whom EAB was one (*JRHS*, xlviii (1923), 65-7, p.66). At the Annual General Meeting of the R.H.S., on 13 February 1923, he was elected to the Society's Council (*JRHS*, xlix (1924), ii), and became Chairman of the Fruit and Vegetable Committee in 1929 (*JRHS*, lv (1930), cxxiff.) – both positions previously long held by his father.

An anonymous article, 'An Afternoon with a Pomologist', in the *Gardeners' Chronicle* declared that 'Mr. Edward A. Bunyard has made fruit his hobby as well as business, and no one would dispute that he is the foremost pomologist in this country to-day' (10 September 1927, 213). As always with Bunyard, there is the Janus-faced quality: certainly he knew his Mendelian genetics and he was a nurseryman, and yet he was also a connoisseur with a scholar's disinterestedness – profit was not put before pleasure, or the balance sheet before botanical inquiry. The same article in the *Gardeners' Chronicle* puts this well:



The Bunyard Family at Oakwood Lodge, Ide Hill, Sevenoaks: c.1898.

Photograph courtesy of Miss Katharine Bunyard, daughter of Norman Bunyard.

Back row L to R: Janet (1882-1958), George (1841-1919), Katharine (1851-1939), Geoffrey (1883-1973), Katharine (1877-1963), Edward (1878-1939); Front row L to R: Frances (1884-1982), Norman (1886-1969), Marguerite (1890-1959), Lorna (1876-1963).

Of course, the most serious side of the business is the raising and selling of large quantities of all kinds of fruit trees, but Mr. Bunyard likes to embark on what he facetiously terms “joy rides” [interestingly for a man with conservative literary tastes, this, originally, Americanism was quite a new word, *joy-rider* being first recorded by OED in 1908] from which no profit is derived, but much pleasure. For example, he has collected as many varieties of Gooseberries as he can secure with a view to classifying them and discovering if any of them are synonymous, whilst in another part of the nursery he has planted over two hundred varieties of Pears obtained from all over Europe, the United States of America, and elsewhere, to see whether any of them are of value in this country. ...Not much of merit has, so far, appeared amongst his Pear collection, but he has obtained what he considers a most valuable variety in Admiral Gervais... (*ibid.*, 213)

He defines the issue himself in a beautifully phrased article – one of Bunyard’s attractions is a prose style of great distinction – ‘Fruit Blossom in Kent’ in *Country Life*. There, reflecting his own great interest in music, he constructs a ‘floral symphony’ in four movements through the blossom season, and firmly puts the aesthetic before the commercial:

Our final movement has more colour and no less majesty, as it introduces the apple with its elusive shades of pink, apt to be seen against a blue sky, and for preference in an old orchard of gnarled and distorted trees, of which there are still a few in Kent. For apples let us, therefore, avoid the orchard of the successful commercial grower, on the brick earth or limestone soils as a rule, and pass through to the poorer clays of the Weald, where venerable trees may still be found, all worthy to be cursed as fruit producers, but to the artistic eye a cause of thankfulness and joy. (26 April 1924, 659)

In that fruit is, after all, grown for eating, one could regard all EAB’s writing as gastronomic, but from the late 1920s his epicurean interests become specifically present among his publications. Gourmets, like great wines, are laid down early and need time to mature. But it was only in 1929 that his first great gastronomic work, *The Anatomy of Dessert*, appeared, published in a limited edition of 1000 copies, signed by the author, by Dulau of Bond Street, booksellers specializing in botanical books who also published the journal *The New Flora and Silva* (in which two chapters of *The Anatomy* first appeared, 1928-9); its dustwrapper and frontispiece were by the artist John Nash (1893-1977). In some form the book must have been in existence for at least five years because his friend, the travel-writer Norman Douglas (1868-1952), wrote to him on 22 August 1924 that ‘*The Anatomy of Dessert* is excellent. Best luck to it!’ (letter now in the Vorarlberger Landesbibliothek, Bregenz, Austria). The reviews were all full of praise, from the *Gardeners’ Chronicle* (26 October 1929, 329) to the *Times Literary Supplement* (17 October 1929, 807); Martin Armstrong (1882-1974), novelist, poet, short-story writer, literary journalist, and *bon vivant*, describes the book well:

Mr. Bunyard’s book, though written in prose, is of the essence of poetry, and like all good poetry it is highly practical. He knows each variety of each fruit and calls it by its name, and he describes lovingly and accurately its flavour, texture and appearance, its excellences and shortcomings, and tells when it should be gathered and when, on a subtle expected change in its appearance, it is ready for eating. (*Saturday Review*, 14 December 1929, 717)

The prose is sensuous, shot through with allusions to the literatures of western

Europe, and often humorous. Space permits but two quotations in illustration:

- (i) of the Blenheim apple: ‘...the Blenheim flavour, a nutty, warm aroma which is to my taste the real apple gust; in fact, I take a Blenheim as a test case. The man who cannot appreciate a Blenheim has not come to years of gustatory discretion; he probably drinks sparkling Muscatelle. There is in this noble fruit a mellow austerity as of a great Port in its prime, a reminder of those placid Oxford meadows which gave it birth in the shadow of the great house of Blenheim. Like Oxford, too, it adopts a leisurely pace, refusing to be hurried to maturity or to relinquish its hold on life. An apple of the Augustan Age.

What can Cambridge put by its side? Its thin and acid airs have produced only a Histon Favourite, an apple of no period, indiscriminate and undistinguished’ (6-7).

- (ii) No one has a good word to say for November. The sky is “chill and drear”, the leaf “red and sere” [both quotations are from the first two lines of the first stanza of the Introduction to Walter Scott’s *Marmion*], and our untethered friends leave for the Riviera to study the Mediterranean rainfall and commiserate with us on our hard fate at home. A fig for their sympathy! A month which welcomes the ripening Cox, the mellowing Comice, is a time for rejoicing. With some game in the covers and some Burgundy in the cellar, let the population be reduced by all possible means. Let them go to lands of everlasting veal and unripened oranges, let them quaff their Chianti and other acidulous beverages; we grudge them not their fare.

November, then, is for apple lovers the Cox’s month, and this fruit needs no introduction or eulogy, the Château Yquem of apples, and, to my taste, to be similarly used. (14-15)

In 1933 *The Anatomy*, now ‘With a Few Notes on Wine’, was published by Chatto and Windus who republished this second edition in their Phoenix Library of Food and Drink in 1936. Though all the expected information on decanting, temperature, the matching of wine with food, vintage, prices, etc., is given, it is the descriptions of the different wines which give the pleasure. Again, a few quotations must suffice:

- (i) Claret is the Beethoven of wines and, like all classics, does not reveal itself fully at a first acquaintance. An intellectual wine also, with a touch of astringency, perhaps a necessary quality for the preservation of classics. Richardson is forgotten while Jane Austen is still with us, preserved by the light acid of her wit and her gay, astringent irony. (170-1)
- (ii) There is a Gothic splendour in Burgundy which no other wine can match. It calls to mind the sun streaming through old glass and distant organ-notes and its music is that of Caesar [sic] Franck, that marvellous Belgian who found new harmonic colour when it seemed that Brahms had said the last word. (181)
- (iii) Champagne is Art’s greatest triumph over Nature, a civilised wine that must be drunk in civilised conditions; the Chopin among wines. We do not expect of it the elemental surge of Burgundy, or the austerity of Claret. ...

It is a drawing-room wine as Chopin was the supreme composer for this setting – a room, we sometimes feel, a little overheated and scented, a room in which the decoration seems to exist for its own sake. ...

Cheap Champagne is a deadly potion, one that the Borgias must regret was created too late for their use. (186-7)

Reviews were again laudatory: H.S. Redgrove in the *Gardeners’ Chronicle* said: ‘It is a volume which everyone who grows, sells or eats fruits, and, indeed, everyone who loves good living and good literature, should secure, not only for the valuable

information it contains but also for the sheer joy of reading it' (8 July 1933, 28); and the anonymous reviewer in *The Listener* declared (though in terms some might quail to use today) that 'this book is eminent, a little peak of wisdom, disgraceful to the flats of ignorance about it. No wife can become perfect without it' (31 May 1933, 833).

But it was not just fruit which interested Bunyard, and his concern with vegetables comes out in the 1930s. In 1931 Bunyard's began the annual issue of a catalogue, 'Vegetables for Epicures', for 'those who prefer dining to exhibiting' (1931 preface). Apart from the 1931 issue each has a guest preface by a gastronomic writer, e.g. in 1932 it was Marcel Boulestin (1878-1943), restaurateur, food writer, and the first television chef; in 1935 Lady Alice Martineau (1865-1956), author of gardening and cookery books; 1939 André Simon (1877-1970), *inter alia* President of the Wine and Food Society. There is, too, an admirable essay, 'Gardening for Epicures', in *The Gardener's Companion*, ed. by Miles Hadfield (London, 1936): full of practical information on varieties, raising, cooking, and written with grace and humour:

Celibacy has certain advantages, amongst which I place high the freedom to lunch off spring onions and bread and cheese occasionally; after this one feels in a mood to appreciate some of our 'back to nature' authors. Cold Comfort Farm diet. Fortunately one touch of nature makes the whole world kin, and, if necessary, one can regain one's self-respect next day by a princely Soubise [an onion sauce, after Charles de Rohan, prince de Soubise, 1715-87] – the onion's greatest social conquest. (20)

Then, in 1937, came the publication of a truly great gastronomic book, *The Epicure's Companion*, the editorial labour being shared by Edward and his sister, Lorna (1876-1963). Between them they contributed almost all the articles; the illustrations were by another sister, Frances (1884-1982), who had done the drawings for her father's *Handbook of Hardy Trees and Shrubs* (Maidstone, 1908), as well as a number of Edward's articles and books; their sister Marguerite (1890-1959) also wrote two brief pieces. EAB was the author of Oysters, Vegetables, Herbs, Strange Meats [including Monkey ('Stringy and insipid'), and Man ['Tastes and looks like pork (add peppers, leaves, beans, and yam')], 117], Game, Foie Gras, Salads, Apple Pie, Cheese, Dessert, Oranges and Lemons, the Ceriman and the Grapefruit, the Banana, the Art of Drinking, the Wine List, a Table of Vintage Years, the Handling and Storage of Wine, the Lineage of Brandy, Rum, Gin, Cyder, Ale and Beer, On Wine Merchants' Catalogues, Tea, Coffee, and Restaurant Technique ['If you are of little value in the decorative sense you will probably find yourself landed quite near to the kitchen entrance or near a service table with its rattle and clatter. If spotted early enough the correct reply to this is to halt in the centre of the room and look languidly at the other diners. The conductor has then to return to recapture your attention and usually tries a different gambit', 465-6]. Lorna Bunyard contributed 13 long and major sections. There were only six other essayists. Edward and Lorna together chose the concluding 'An Epicure's Anthology'.

The reviews were again admiring. Evelyn, Viscountess Byng of Vimy (1870-1949), who created a great garden at Thorpe Hall, in Essex, wrote a lengthy review in the *Journal of the Royal Horticultural Society* in which she said that:

In his latest book Mr. Bunyard, assisted by able friends, has again given us another of those ironic and witty treatises which readers of his "Anatomy of Dessert" would

expect. The present volume is so filled with good things – not only gastronomical – that one is tempted to quote *ad lib.*, and excite the reader's mental appetite as well as his gastric juices to a high degree of stimulation. There is a vast store of classical knowledge, of culinary expertness, and of humour in these 528 pages, and I thoroughly enjoyed the excursion into such varying provinces. (lxiii, 1938, 142)

Bunyard presented a copy to Fred Stoker (now in the Lindley Library of the R.H.S., Case 641.5; Shelf Bun), his eventual obituarist for the Linnean Society), inscribing it 'To F. Stoker/ Scriptor sapiens/ E.A. Bunyard'. I'm sure that this 'Scriptor sapiens' must be the same as the 'F.S.' who contributed an encomiastic review to the *Gardeners' Chronicle* (27 November 1937):

A specialist has been defined as one who knows everything of something and something of everything. Mr E.A. Bunyard's wide scholarship, his willingness, nay, eagerness to try all things, and his acute sense of proportion – I speak of what I know – amply qualify him both to edit *The Epicure's Companion* and to take a greater share in its compilation than any of his experienced and able collaborators. (397)

As we should expect, we find EAB mentioned as in attendance at various gastronomic dinners in the 1920s and 1930s, notably the Dinners of the Saintsbury Club, founded to honour that chronicler of the wine cellar, Professor George Saintsbury (1845-1933). Its first Dinner was on 23 October 1931, and the menu included 'Pommes d'Allington' and 'Noix à la glace', the apples and nuts being a present from Bunyard. The choice of Allingtons was a good one, not just because of the flavour, but because his father had introduced this apple commercially in 1896, the centenary year of Bunyard's when Edward had entered the firm; now it appeared on the first menu of the Saintsbury Club. At the third Dinner on 24 October 1932 'Les Ribstons d'Allington' were on the menu (for the menus see 'The Cellarer' [i.e. André Simon], *The Saintsbury Club: A Scrap Book*, 2nd edn., Sonoma, California, 1993). Bunyard was coming into professional association with André Simon, one of the founders of the Club and its Cellarer; he became a regular contributor to Simon's *Wine and Food*, the journal of the Wine and Food Society, from its first issue in 1934, with 19 articles and reviews in all; he became a member of the Society's Advisory Council in 1938.

Bunyard's love for tradition, old varieties of fruit, old books, old wines, found expression also in his work as a rosarian. His interest in roses went back many years to the photographs of roses which he kodaked for his father's *England's National Flower* (1904). He published on old varieties of rose in *The New Flora and Silva* from 1929, in *The Rose Annual of the National Rose Society* from 1930, in *Gardening Illustrated* from 1932, in *Country Life* from 1934, as well as in *The Countryman* in 1934 and in *JRHS* in 1938. But his great publication on roses was his book published by *Country Life: Old Garden Roses* (London, 1936). Of this Graham Stuart Thomas wrote in *The Old Shrub Roses*, revd. edn. (London, 1979):

And then E. A. Bunyard turned his rare ability to the old roses, and the result, charming, readable, and erudite, *Old Garden Roses*, appeared in 1936. As far as I know this was the first book for over a hundred years which owed its inception to a deep-seated love for all the old roses. His life was prematurely ended, otherwise he would undoubtedly have corrected the several inaccuracies which are to be found in his book, but he gave new zest to the cause of old roses, and collected many varieties together. We of this generation owe much to his guidance. (38)

Bunyard's own copy is in the Lindley Library of the Royal Horticultural Society, purchased in 1940 out of the Reginald Cory Bequest (Case: 930; Shelf: ROS; No.: Bun). Bunyard had had it rebound in red leather, with gilt top-edges, and the title in gilt on the spine. Of course, having a special, fancy copy of one's book seems harmless, if expensive, enough, but one cannot but be reminded of his great-uncle Charles who, in George Bunyard's words, 'kept a carriage and pair in London, and did the swagger', or his uncle Tom whose wife 'took a swell boarding house'. At the back of the volume are two letters of appreciation, one, dated 12th January 1937 is from Vita Nicolson (Vita Sackville-West, 1892-1962), Sissinghurst Castle, Kent. It begins:

Dear Mr Bunyard,

I must really write and tell you with what intense enjoyment I have been reading your book on roses. I have read every word of it and made careful notes at the end. ...It... has also had the effect of giving me fresh ideas for the garden here. In other words, I want to plant a long rose hedge and also some roses under an overhanging tree. I wonder if you could possibly spare the time to come over here one day and give me your advice. Any day except January 21st. 22nd. and 23rd or February 8th and 9th would suit me.

Bunyard did spare the time. On 20 January 1937 Vita Sackville-West wrote from Sissinghurst to her husband, Harold Nicolson, in terms which show she was aware that Bunyard was a gourmet as well as a rosarian:

My darling Hadjikins,

I've spent a lovely orgiaical day with Mr. Bunyard, ordering roses recklessly. He came to luncheon, and knowing that he was very epicurean in his tastes I gave him a delicious luncheon: Indian corn on the cob to start with, then woodcock sitting on a croûton with paté de foie gras and a necklace of truffles round it, and Clos Vougeot 1911 to drink – and Chateau Yquem to finish up with – all of which he greatly appreciated. Then when he was well-fed and well-wined (I also gave him one of Richard's cigars!) we went out and talked about roses for the rest of the afternoon. (Letter now Sackville-West, V. mss collection, Manuscripts Department, the Lilly Library, Indiana University, Bloomington, Indiana)

Behind *Old Garden Roses* were not only the Bunyard Nurseries which raised 400 varieties of rose, but a colloquy over the years with other great rose growers, both in England and Europe. Though he had poured humorous scorn on 'our untethered friends' who leave for the Riviera in November (*Anatomy*, 1929, 14), he himself was also a great lover of the Riviera. In 'Some Rose Memories of 1937' he records staying with Lawrence Johnston (1871-1958) at Serre de la Madone near Menton, and visited the gardens of the Warres at Roquebrune and the Hanburys at La Mortola, near Ventimiglia (*The New Flora and Silva*, January 1938). In 'Rose Hunting in 1939' he went a month later, in May, staying with his friend Basil Leng (1898-1979) at his house, La Ferme des Orangers on Cap d'Antibes, and visiting many nurseries; he had an argument with an Italian nurseryman – 'I fear we left him unconvinced, but he did not play cricket. Overwhelmed by the odour of garlic, we fled the field' (*New Flora...*, November 1939, 12). Perhaps I may record here an answer to a question Bunyard put in his 1938 *New Flora* article: the sight of La Follette and other *Rosa gigantea* hybrids led him to an astringent reflection: 'where have we seen this distinguished foliage before? Surely in Marechal Niel, Niphetos and Gloire de Dijon, and so perhaps the

Tea Rose may be related to the Gigantea family as some hardy souls suggested before the chromosome era' (*New Flora...*, January 1938, 116). I put this question to Mr. Robert Mattock, who kindly told me (letter of 26 July 2006), 'The answer is a resounding yes':

DNA fingerprinting has so far confirmed that there is scarcely a garden rose (Tea rose included) that does not carry the genes of *R. gigantea* and *R. chinensis*. Both were well known in the West through their cultivated forms and hybrids long before the original species were found in the wild. Further more most of the cultivated roses of South East Asia were grown for hundreds of years before European botanists subjected the Asian garden flora to Western empiricism!

I doubt that further specific genetic research will be of much use until we have a comprehensive understanding of the under-researched, much ignored and often much disparaged Chinese and Japanese horticultural history when we may put these ancient cultivars into an historical perspective.

Good for Edward Bunyard.

And all the time the development of these newer interests in gastronomy and rose-culture was taking place, articles, notes, reviews and letters on fruit of all kinds and on the bibliography of matters horticultural continued to appear – over 400 in total, excluding 31 letters to the *Times*. His committee work for the Linnean Society and even more for the Royal Horticultural Society must have taken up considerable time. Notable recognition came in 1934 when he was awarded the Veitch Memorial Gold Medal for his contributions to pomology.

So what led to the catastrophe? The *Kent Messenger* said 'He had been extremely depressed by the war and had not had a night's sleep since it began; he also suffered from asthma' (21 October 1939, 4). The same newspaper reported that it was said at the inquest (on 24 October 1939) that 'he dreaded the effect of the war on his business' (28 October 1939, 5). Whether he was aware of how near to bankruptcy he was (£311.2s.3d net) is unclear, but he had clearly communicated his worries to others. One consequence of his financial position was that clause 5 of his will of 19 July 1935 could not be enacted:

I BEQUEATH my library of Pomological Books dealing with fruit and its cultivation now at my house at Allington to the Royal Horticultural Society free of duty provided they are willing to preserve and maintain the library as a complete Collection with my name for the use of all students of Pomology and failing their acceptance of this condition then it shall fall into and form part of my residuary estate.

Creditors had priority, and the RHS had to buy the books it wanted and could afford at valuation. The selection was made by William T. Stearn (1911-2001) who had been appointed Librarian of the Lindley Library by E.A. Bowles (1865-1954) and Bunyard in 1932. The value of books on botany was £200 for the Lindley Library and £165 for Wisley (Hodgson Records, British Library Additional MS. 54710, pp. 74-83). The remainder was auctioned by Hodgson's on 13-14 June 1940.

Edward Bunyard was not married but did not lack friends. There was Norman Douglas (1868-1952), with shared interests in botany, travel, culinary art, and literature, and with Douglas came others in Florence – Pino Orioli (1884-1942), the publisher; C.K.Scott-Moncrieff (1889-1930), translator of Proust; Reggie Turner (c. 1870-1938),

a surviving part of the detritus of the Oscar Wilde set; and Edward Hutton (1875-1969), author, were four; there was Basil Leng (1898-1979) on whose garden at Socoa, near Biarritz, EAB wrote an article in *Country Life* (1 November 1930, 563-4), with whom he wrote a joint article on 'The Camellia in Europe' (*The New Flora and Silva*, January 1933, 123-9), and in 1939 in whose house he stayed on the Riviera where Leng advised on many of the great gardens. Also on the Riviera he had enjoyed the hospitality of Lawrence Johnston (1871-1958), the creator of two splendid gardens. The surviving correspondence (now in Reading University Library, ref. CW 68/17) with Ian Parsons (1906-80), a partner in Chatto and Windus who published the 2nd edition of *The Anatomy of Dessert* in 1933, shows a relaxed and warm relationship. There were the luncheons and dinners in London, in which world he must have met Maurice Healy (1887-1943), barrister, epicure, and writer on wine, who was to contribute a deeply personal and moving obituary in *Wine and Food* (Winter 1939, 324-6).

A little over three months before he died, William T. Stearn, who had been with Bunyard on the morning of the day of his suicide, wrote to me with an account of the circumstances. He acutely observed:

My supposition is that he was a victim of the War. He was now in debt; nobody bought fruit trees. Food-rationing had begun. He could no longer roam the continent for good wine. In short the good things of life for him were ceasing. There was little to live for. (Letter of 19 January 2001)

There is some evidence that Bunyard's horticultural and gastronomic interests were remarkably insulated from the world of anger and telegrams, from public affairs. On 23 March 1935 Norman Douglas wrote to Bunyard from Florence; the letter included the sentence: 'I don't know Trier or Erfurt. Don't think I should care about Germany any more, seeds or no seeds' (Letter in the Department of Special Collections, University of California, Los Angeles, Collection 111, Box 2). It looks as if Bunyard was proposing a seed-hunting visit to Germany, and, unlike the more socially and politically aware Douglas, was not going to be deflected by a National Socialist Germany – though not a unique attitude at the time. The second piece of evidence about the self-contained nature of Bunyard's world comes from his article 'A Few Meals in France' which appeared in *Wine and Food* (Autumn 1939 – the date is important) and concluded: 'And which, you will ask, is the hotel so greatly endowed? I will tell you in a month or so, after my next visit' (229). Had he really the confidence to speak of a 'next visit'? Probably. An editorial by André Simon in the Spring 1938 issue of *Wine and Food*, having spoken of massacres in Spain and China, dictatorships, and class warfare, then declares:

But there is still a patch of blue sky, a bright patch which refuses to be obscured by all the 'black-out' orders and experiments of panicky Government Departments. It is the Wine and Food Society... It still believes and preaches that it would be far saner to give school children a plateful of good soup every morning rather than gas masks... Air raids may never come, but dyspepsia is here already... Fears and hatreds, the blue and black devils which will ruin this fair world of ours if we let them, rise from acid, sour, pinched, sagging, ill-fed stomachs. They make many victims; they drive many out of their reason or of life, but they have no hold upon the sane, well-nourished optimism of the Members of the Wine and Food society.

Bunyard's world went to pieces in September 1939. It was not 'fears and hatred'

which drove him out of his reason and life; it was that misplaced ‘well-nourished optimism’ which darkened for ever his ‘patch of blue sky’.

But if facile optimism can lead to disaster, I hope it is not misplaced to find some consolation in the Linnean Society, of which Edward Bunyard was a Fellow, and the Brogdale Trust of Kent, Bunyard’s own county, choosing him as the subject of this year’s Lecture.

NOTES

1. All quotations are identified in the text. Further documentary evidence and support for the arguments advanced will be found in *The Downright Epicure: Essays on Edward Ashdown Bunyard (1878-1939)*, ed. Edward Wilson (Prospect Books, Blackawton, Totnes, 2007).

The importance of Bishop Gunnerus for Linnaeus

As a preparation for a lecture to be given at the Royal Norwegian Society of Science and Letters (DKNV) in Trondheim, where Linnaeus was made the first foreign member in 1767, I read the total correspondence between him and Bishop Gunnerus, which has survived *in toto*. This is a most remarkable case where it is possible in detail to follow their exchange of ideas and observations. Since it is not likely that anyone outside Norway knows who Gunnerus was, some presentation of him may be necessary, though I believe most British members know plants of the impressive genus *Gunnera*, which Linnaeus dedicated to him. A splendid, very personal presentation of his life and activities in English was published a few years ago by our member Gertrude Marsh (Marsh, 2002).

Who was Gunnerus ?

Johan Ernst Gunnerus (fig.1) was born in Christiania, Norway in 1718 as the son of the city medical officer Erasmus Gunnerus (the family name is a latinization of Gunner, and it has been claimed that the family originated in Scotland, a fact I have been unable to prove unequivocally – Erasmus was born in Sweden).



Fig. 1. Bishop Gunnerus from a contemporary engraving

Already as a child, he showed great talent, and he did well at school. However, his father's early death (when Johan was fourteen) put economic difficulties in the way of his education. He managed, though, to finish by the help of benefactors, and wrote a Latin exercise for his final exam which was so excellent that it was reported to the King, who upon his inscription at the University at Copenhagen awarded him a scholarship for studies in Halle, Germany. There he stayed for one year and thereafter moved to Jena where he took a doctoral degree in theology, but also taught logics, metaphysics and international law. The King finally called him back to Copenhagen



Fig. 2. The first page of Gunnerus' pastoral letter from 1758.

where he became so popular with the students as acting professor at the University, that some of the ordinary colleagues complained to the King, who promptly and most unexpectedly appointed him Bishop of Nidaros in his native Norway. Gunnerus was himself surprised by this, and not at all happy for Trondhjem was a marginal place, outside the scientific world he cherished. He went there, however, with the determination to show that Norwegians were as able in science as any other people. It was rather by accident that he turned to biology, one of the few subjects he had not studied at the universities that he had visited. The accident was caused by the visit by Chr. Oeder to Trondhjem in the autumn 1758, a German who was preparing the publication of the (later) famous “Flora danica” which was planned to contain Norwegian plants as well (in fact fig.1, *Rubus chamaemorus*, was unknown in Denmark proper). It certainly felt like a kick to someone who wanted to prove that Norwegians were able to do their own science. Gunnerus also got hold of *Species Plantarum* by Linnaeus, which was just the book for someone starting to get to know plants. In 1760 he had started the learned society which developed into the first academy in Norway, with royal approval from 1768 on. He also issued a pastoral letter in 1758 to the clergy (fig.2), urging them to study the natural resources of their parishes, as part of their religious activities – to understand God’s creation. This letter was most unusually also published in German, certainly to show that science was taken seriously in Norway. The very influential royal physician, Chr. Struensee, who disliked the organisation and scientific direction of the university, in 1771 asked Gunnerus to make a plan for its reorganisation and renewal, which he did. On his way to Copenhagen in 1772 to discuss this plan, Gunnerus got the news that Struensee had been arrested and beheaded as a traitor. The terrified Gunnerus at once returned home and never recovered fully from the shock, according to contemporary sources.

In 1773, on a visitation to Møre, he experienced a violent storm at sea, and refused to go under deck, as he wanted to observe the forces of nature. Afterwards he developed serious pneumonia from which he died on the 25th of November in Kristiansund. He certainly was the most important intellectual in Norway in his time.

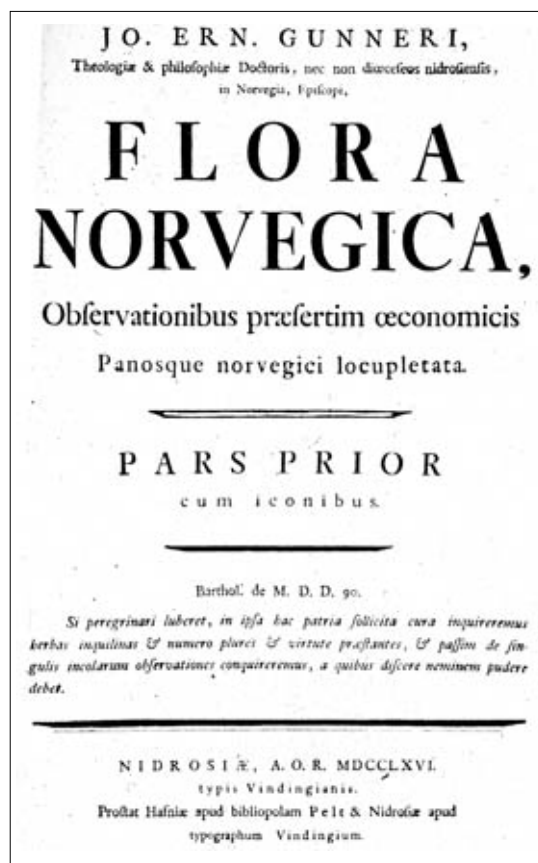


Fig. 3. The frontispiece of *Flora Norvegica*.

Fig. 4. *Veratrum album*, a plant new to Scandinavia, as illustrated in a letter to Linnaeus.

The Linnean connection

Gunnerus first wrote to Linnaeus on the 24th of April 1761, a long, twelve page letter, mainly concerning animals from the ocean, a habitat for which he had a lifelong interest. Linnaeus' reply after a year was brief, but most friendly. He said that he needed to see specimens in order to answer Gunnerus' many questions, and strongly recommended that Gunnerus continued his study of boreal organisms, which Linnaeus claimed God from the beginning had reserved for Gunnerus.

It was only in May 1764 that Gunnerus informed Linnaeus that he was working on a "Flora norvegica".

He admitted that this was bold, but he had to make one since "no one of my contemporary, learned compatriots are willing to do so" (once more showing patriotism!). Linnaeus was more than willing to assist him, certainly since this would enable him to get specimens from parts of Norway which few visited. And indeed, soon Gunnerus provided Linnaeus with a botanical gem, *Veratrum album*, from Finnmark (fig.4) – new to Scandinavia (though originally discovered by Lilienskiöld just before 1700 and illustrated by him in his unpublished "Speculum boreale").

To begin with Gunnerus acted as the student taking knowledge from the master. However, as his self-confidence grew, he dared to question Linnaeus' opinions, though in the most polite way possible. They disagreed most about the taxonomy in the genus *Saxifraga*. Quite clearly Gunnerus had understood the plants he collected better than Linnaeus who had not seen them in the field, a fact Linnaeus freely admitted. Linnaeus, to my surprise, actually asked for seeds so that he could grow them side by side, a most modern approach. Their greatest disagreement is, however, how to interpret names in the older literature, above all the drawings in 'Flora danica'.

Another plant under discussion was a largeflowered *Arenaria* which according to Gunnerus could not be identified with any species in "Species plantarum". Linnaeus was uncertain and admitted this. The plant reminded him of *Arenaria balearica* though he doubted that this species was able to grow so far North and again he required seeds, which unfortunately failed to grow. Gunnerus finally described the species as *Arenaria norvegica*, a name it still carries.





Fig. 4. A letter from Linnaeus.

Linnaeus was even more generous in relation to a lichen which one of Gunnerus' vicars had collected and which Gunnerus believed to be new, but could not with certainty distinguish from a Linnean species. They discussed this matter in some letters, but finally Linnaeus concluded: "Your Grace, who has sufficient material available, is best suited to make the final decision."

Conclusion

I regard Gunnerus and Linnaeus as twin souls, eagerly trying to understand God's creation and organizing it. Undoubtedly, Gunnerus would not have achieved so much without Linnaeus. However, Gunnerus was also of great importance for Linnaeus, not

only because he provided him with specimens of rare plants and animals from the North, but also since he without any preconceived opinion on systematics (he had not studied the subject at any university!) tested the usability of the Linnean system and reported on this to Linnaeus. To my knowledge the frankness of their discussion is unparalleled in the Linnean correspondence. It is obvious that they trusted each other and valued the observations and opinions of the other highly. Linnaeus most nobly praised Gunnerus in several of the letters, most obviously in a letter from March 1764 (fig.4 above). What a pity that they never met!

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Bumblebees – changing fortunes

Linnaeus' bumblebees¹ are amongst the oldest surviving bumblebees in Europe and his collection has a number of familiar species. In this world of diminishing species the collection is an increasingly important reference for species that are declining, becoming extinct or changing populations through climate change or man-made factors.

His bumblebees are part of three boxes of Hymenoptera (Boxes 33, 34 and 35) of mixed genera, curated by Mike Fitton, assessed by M.C. Day² and more recently by Paul Williams at The Natural History Museum.

Of particular interest to me is the paucity of *Bombus* species in the tropics,³ for the genus is more typical of the Northern Hemisphere whilst exploitation of tropical habitats is much reduced or absent in some places such as



Boxes 33 (above) and 34 (right) of Linnaeus' Hymenoptera.



Africa. So I was interested to note the presence of a large insect labelled '*brasilianorum*' in Box 35 (left) that had lost its bronze lustre.

This is almost certainly a species of the *Xylocopa*, or Carpenter bee that is called *Xylocopa brasilianorum* (Linnaeus), i.e. not a bumblebee.⁴ Xylocopids are known as important pollinators of passion flowers in Brazil, and

the range of *X. brasilianorum* (Linnaeus) is north to California, for it is represented there as the Valley Carpenter Bee, *X. brasilianorum varipuncta* Patton.⁵ It would seem from its name that *brasilianorum* would therefore exist from Brazil, northwards through Central America into south-western USA.

Finding bumblebees in the Brazilian rainforests and other tropical habitats⁶ is usually unsuccessful these days (like chancing on jaguars or anacondas), but just occasionally a large hymenopteran is seen in a clearing for a brief moment without any chance of getting close. There is a high probability that many of the large bumblebees seen are actually Carpenter Bees belonging to the *Xylocopa* genus. The amount of fallen timber in Amazonia is always unbelievable, and is replenished every few months so this is a paradise for both coleoptera and hymenoptera.

Anecdotal evidence that xylocopids prefer warmer climates also comes from southern France. In the warm Mediterranean of the Cévennes (Gard) there are usually many more xylocopids on the wing than bumblebees and recent records indicate that they are making a foothold in southern England.⁷ And a new bumblebee species has been added to the UK list in 2000 namely *B. hypnorum* (no common name). Global warming may have provided the opportunity for bumblebees to extend their ranges alongside increased fortunes of flowering plants.

Linnaeus's bumblebees therefore represent an important reference collection of insects, fixed in time to the late 18th century, many of which are continuing to experience declining populations. Distribution is therefore not only determined by the vagaries of the weather, now it is likely to be influenced by man.

Declines

The declines had already started in the late 20th century when the Kent bumblebee enthusiast, F.W.L. Sladen recorded *B. distinguendus* (the Great Yellow Humble-bee) becoming rare in the London area;⁸ now it is restricted to the north of Scotland.⁹

According to Natural England (formerly English Nature) there has been a 70% decline in some bumblebees in Britain since the 1970s, with only six out of the UK species found easily.¹⁰ Three UK species are now extinct and nine are threatened.¹¹

When Prys-Jones and Sarah Corbet's book on bumblebees came out in 1991,¹² only 6 of the 9 non-cuckoo species listed were widespread and abundant, the rest either having not been seen for many years, were 'declining' or 'status unknown'.

Ted Benton in his New Naturalist *Bumblebees* book¹³ has provided an agreeable overview of the status of Britain's bumblebees, and Paul Williams and Mike Edwards have provided an overview of the declines of bumblebees in the UK and worldwide.^{14,15}

The UK probably does more for bumblebee conservation than any other country. Bumblebees are coming back to field margins that have been left for wildflowers under, for instance Defra's Countryside Stewardship Scheme, and Syngenta launched Operation Bumblebee to promote bumblebees on farmland, let alone a lot of work done by wildlife trusts on non-statutory wildlife sites.



The colour-matching of ragwort and bumblebee is remarkable.

Conservation

Bumblebees are indicators of a healthy and biodiverse environment. By bringing back the appropriate nectar sources bumblebees may thrive, but it's a delicate ecological balance for bumblebees, regulated by the availability of appropriate nectar sources for their particular length of tongue (for they have different length tongues for specific flowers). With global warming plant distribution can vary, which may be to the bumblebees advantage or not.

Recent research in the UK, the Netherlands and Germany concluded that overall bee diversity fell by almost 80% in these countries in the last 25 years up to 2006.¹⁶ It was also found that plants that depend on pollination by bees are disappearing too. This is not a surprise since Charles Darwin predicted very much the same; he thought that if ever humble-bees became extinct or very rare in England that heart's ease

(*Viola tricolor*) and red clover (*Trifolium pratense*) would become very rare or disappear entirely.¹⁷ I am not sure that these two wildflowers had disappeared synchronously with the bumblebees as they are still found along Kentish waysides.

This association of bee and flower exemplifies the essence of Darwinian evolution, and accounts for the fragility of populations in a changing environment. If a species is so highly specialised, without any useful means of adaptation to a changing world it has long-term success stacked against it. The intimate and uncanny mutual association of bumblebees with wildflowers is enough, one would have thought, to satisfy any evolutionary sceptic.

The degree of specialisation can therefore be a hindrance for long term evolutionary success especially if there is little chance of effecting realistic adaptation in a world of fragmentation of habitats and decline of foodplants. The winners will always be the species that are not fettered by specialisms, whether by scarcity of particular food sources or peculiarities in way of life. This is true for bees as for butterflies, and many other animals.

There will always be a range of insects that will prosper with little fluctuation in population in a changing environment, and others that will fall by the wayside and have declining populations. In butterflies the winners will be species whose larvae feed on the relatively ubiquitous Graminae, Cruciferae or Urticaceae, and in bumblebees there will be a hard core of species that are enormously successful because they have a good range range of common nectar sources. As Benton remarked, the abundant Common Carder-bee, *B. pascuorum* is a highly adaptable insect. The usefulness of the UK's 15 million gardens cannot be under-estimated in providing nectar sources for bumblebees.

Bumblebees are starting, very slowly, to be recognised as important biodiversity indicators on development sites. Both Buglife¹⁸ and BCCT have joined forces to highlight the plight of bumblebees (amongst many other invertebrates) on the Thurrock Marshes in the Thames Gateway where a suite of Red Data Book and Biodiversity Action Plan (BAP) species are present. *B. humilis* (the Brown-banded Carder Bumblebee) and *B. ruderarius* (the Red-shanked Bumblebee) are present there, and their populations continued to decline.

Five bumblebee species are protected as Priority BAP species in the UK.¹⁹ Of these just one species is represented in Linnaeus' boxes, namely *B. sylvarum* (two specimens in Box 34, bearing the label 'Lecotype, *Apis sylvarum*, det. M.C. Day.').

Linnaeus probably did not anticipate that the fortunes of bumblebees would change in his lifetime or that his collections would record the past so well. And Sladen probably did not realise that populations would retract so much when he was out in his rick collecting bumblebee nests during the best time of the year – at hay-making time. Too much has changed since then. The waysides and woodlands are different. But the decline has been dramatic in the last few decades and one hopes it is not too late to be reversed with some creative conservation and land management.

JOHN FELTWELL FLS

John Feltwell would like to thank Gina Douglas for archival information and for facilitating access to the collection; the images of Boxes 33, 34 and 35 are reproduced courtesy of The Linnean Society of London. George Else helpfully advised about the xylocopids.

ENDNOTES

1. Not all the insects in these boxes have a provenance from Linnaeus, as it is known that James Edward Smith, the Founder of The Linnean Society added various specimens to the collection.
 2. Day, M.C. 1979. The species of hymenoptera described by Linnaeus in the genera *Sphex*, *Chrysis*, *Vespa*, *Apis* and *Mutilla*. *Biological Journal of the Linnean Society* 12: 45-84.
 3. Williams, Paul <http://www.nhm.ac.uk/research-curation/projects/bombus/> where 118 species are known from the Palaearctic region compared to 11 in the East Neotropical Region containing the Amazon basin.
 4. Almost identical specimens can be seen on Google Images. <http://images.google.co.uk/images?>
 5. <http://www.entomology.ucr.edu> The subspecies is described as having a preference to partially decayed live oaks, deciduous oak, pepper trees (*Schinus molle*), eucalyptus and in the Spanish bayonet, *Yucca whipplei*.
 6. typically in the Atlantic Rainforest at Cacheiros, Rio Janeiro State, Brazil. see www.regua.co.uk – a nature reserve of 6740ha in the Três Picos National Park.
 7. Feltwell, J. 2006 *Bumblebees*. Battle, Wildlife Matters.
 8. Sladen, F.W.L. 1892. *The Humble-Bee, its life history of all the British species of Bombus and Psithyrus including The Humble Bee*. Reprinted by Logaston Press, 1989.
 9. Prys-Jones, O.E. & Corbet, S.A. 1991. *Bumblebees*. Richmond, Richmond Publishing Co Ltd..
 10. *Help save the Bumblebee...get more buzz from the countryside*. English Nature, 2006. Leaflet
 11. The Bumblebee Conservation Trust. <http://www.bumblebeeconservationtrust.co.uk/>
 12. Edwards, M. & Williams, P., 2004. Where have all the bumblebees gone, and could they ever return? *British Wildlife* June 2004 p. 305-312.
 13. Benton, T. 2006. *Bumblebees*. The New Naturalist Library. London, Collins
 14. Williams, *ibid*
 15. Edwards, M. & Williams, P., 2004. Where have all the bumblebees gone, and could they ever return? *British Wildlife* June 2004 p. 305-312.
 16. Wild bees and the flowers they pollinate are disappearing together. Press Release dated July 21, 2006. The University of Reading regarding paper in Science of 21 July 2006. <http://www.nerc.ac.uk/press/releases/2006/bees.asp>
 17. Darwin, C.R. 1859. *Origin of Species by means of natural selection or the preservation of favoured races in the struggle for life*. London, John Murray.
 18. <http://www.buglife.co.uk> The Invertebrate Conservation Trust.
 19. <http://www.ukbap.org.uk> *B. distinguendus*, *humilis*, *runderatus*, *subterraneus*, *sylvarum*.
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**219th Anniversary Meeting
of the Linnean Society**
held at Burlington House, Piccadilly, London W1J 0BF
at 4.00 pm on Thursday, 24th May 2007

1. **The President** took the Chair and welcomed 98 Fellows and their guests to the meeting.

Apologies were received from:

| | |
|-----------------------------|---------------------------|
| Prof Richard Bateman | Dr George McGavin |
| Prof Mark Seaward | Mr Jeremy Franks |
| Prof Peter Davis | Dr Sara Churchfield |
| Dr Pieter Baas | Dr Pamela Le Couteur |
| Sue Dale - Lady Tunnicliffe | Mr Alastair Land |
| Dr Michael Morris | Dr Pat Morris |
| Dr Rosemary Lowe-McConnell | Prof Jean-Jacques Symoens |
| Dr Brian Rosen | |

2. The greeting from the Accademia dei Lincei (the Italian National Academy) on the occasion of the Linnaean Tercentenary was noted. It read as follows:

Carolus Linnaeus / physicorum Suecorum clarissimum / abhinc trecentos annos
natum / erga humanum genus optime meritum / Academiae Lynceorum sodales /
grato semper animo consalutant / Vivat crescat floreat / scientia amabilis

3. **Admission of Fellows.** The following signed the Obligation in the Roll and Charter Book and were admitted Fellows:

| | |
|---------------------------|--------------------------------|
| Henry Adewale Akinnibosun | Thomas Riedlinger |
| Cyril Norman Aydon | Anthony Michael Lawrence Smith |
| Han-Liang Chang | Deborah Lyn Wright |
| Isabel Helen Lee-Elliott | Helen Beatrice Allen |
| Robert O'Kennon | Laurence O'Reilly |

4. The **Minutes of the Meeting held on 19th April 2007** were taken as read and signed.

5. **The Executive Secretary** read for the third time the **Certificate of Recommendation** for the election of a Fellow *honoris causa*. The citation is reproduced below:

Charlie Jarvis was the first and only leader of the Linnaean Plant Name Typification project. For the first 8 years he worked alone before being joined by a succession of immensely able assistants – all of whom benefited from his mentorship before going on to forge successful careers in science. But Charlie has been the constant element throughout the 26 years of the project and is central to its success.

The result was that he soon became the consultant of choice for taxonomists, not just for all matters Linnean, but on many ancillary authors and collections – if they may be so called – such as Paul Hermann, John Clayton and Sir Hans Sloane, as well as on typification in general. He was the originator of the concept of the epitype (few of us can claim such an intellectual invention) and has helped shape the Botanical Code under which guidance all taxonomists work.

His scholarly reputation and ability to deliver soon attracted enquirers needing advice on Linnean names and his diplomatic skills converted many into collaborators whose efforts furthered the project. His correspondence – in volume and range of recipients at least – rivals that of Linnaeus himself. Over the years enquiries have run into thousands; some 200 project publications have appeared, the majority with the name Jarvis prominent upon them, and many more publications have acknowledged specialist advice received. Amidst this prolific output, Charlie also found the time to study personally many of the Linnean collections scattered throughout Europe, seeing such visits as both a duty and a pleasure.

In addition to being a prolific botanical writer, Charlie is highly regarded in various other guises: as a surgically precise editor; advisor to major Flora projects; and counsellor to colleagues, especially on the matters of cooking and the joys of Italy. But his reputation is firmly founded on his ability as a Linnean scholar. What an achievement it is to have guided the Linnean Plant Names Typification Project from inception to completion.

Charlie has also acted as curator of the Linnean Society's herbarium since 1990, fielding enquiries, providing advice and acting spokesperson for the Society. He succeeded Dr Norman Robson and Dr William Stearn, hard acts to follow, but has developed the role into one which reaches out to the wider botanical community in a new and innovative way. He deserves the Society's recognition not only for his achievements in botany but also as an ambassador for the Society in an important scientific community.

When Charlie was awarded the Society's Bicentenary Medal in 1990 for his work on the project, the testimonial stated that "all who have had the pleasure of working with him will know that there could scarcely be a more considerate or capable botanist". There could be no more accurate and fitting description.

6. **Appointment of Scrutineers.** The following were appointed as scrutineers:

Dr John Marsden Prof James Moody Dr Anthony Walker

7. **Ballots.** As a result of the ballots:

- a. The following were elected to Council: **Dr Pieter Baas (B), Professor Richard Bateman (B), Dr Andy Brown (Z), Dr John David (B), Dr Malcolm Scoble (Z), and Dr Max Telford (Z).** Details of these new Council members can be found in *The Linnean*, April 2007, p.2. These nominations, all made by the Council, were for Fellows to replace Dr Louise Allcock (Z), Prof John Barnett (B), Prof Janet Browne (Z), Mr Aljos Farjon (B), Dr Michael Fay (B) and Dr Keith Maybury (Z)
 - b. The following was elected a Fellow *honoris causa*: **Dr Charles Edward Jarvis FLS.**
 - c. The Officers elected were: Treasurer, **Professor Gren Li Lucas OBE**; Editorial Secretary, **Dr John Edmondson**; Botanical Secretary, **Dr Sandy Knapp**; Collections Secretary, **Mrs Susan Gove** and Zoological Secretary, **Dr Vaughan Southgate.**
 - d. The Fellows were elected as on the accompanying list.
8. The President spoke about the **Linnaean Plant Name Typification** project and the pride the Society took in the splendid book *Order out of Chaos* which had been written by Dr Charlie Jarvis. Dr Jarvis then presented a copy of the book to Dr Johannes Vogel FLS, Keeper of Botany at the Natural History Museum. Dr Vogel

replied that the NHM was equally delighted with the outcome of the project, and he said how pleased his department was to have collaborated with the Linnean Society.

9. Citations and Presentations of Medals and Awards:

a. The President presented the **Linnean Gold Medal** to the Treasurer, Professor Gren Ll Lucas, stressing that this was only the third time that this medal had been awarded, and read the citation which was as follows:

When Gren Lucas becomes involved with an organisation, he gives it his full attention. His track record is amazing, and his personal impact on nature and wild-life conservation both in the UK and worldwide is second to none. Although before university he trained as a chemist with Distillers, he caught the botany virus on reading a book on plant geography, and has not been the same since. This is probably as well, because as a boy he had a fascination with explosives.

It was while on leave from three years in Nairobi where he was a botanist based in the East African Herbarium, that he saw an advertisement for a post at The Herbarium, Royal Botanic Gardens, Kew, for which he applied and was appointed. Early in his career he had a particular interest in the Malvaceae – the family including *Hibiscus* and *Malva*.

Gren likes to know all the ins and outs of the groups he works with, the personalities and the potential of his colleagues, and the Linnean Society is no exception. I hope, therefore that he will have been taken aback by this presentation! He will be very surprised that he had not seen it coming because he thinks he knows everything that is going on here! But perhaps he knew, and has been most effective in not letting on!

I will give you a much potted history of highlights of his career before leading on to the presentation of the Linnean Medal.

Gren's main work has been through his position at Kew, where he rose to become Keeper of the Herbarium and Library before his first retirement in 1995 – he was encouraged to stay on a year to start up an Information Services Department – and then he did some voluntary work for the Kew Foundation. His Herbarium post enabled him to play an active part in many national and international ventures, including Floras for Africa. However, it was mainly in plant conservation or more widely, in wildlife conservation that he made particular impact. His OBE was awarded in recognition of this significant service to humanity.

He was closely involved in The National Council for the Conservation of Plants and Gardens, where he became Vice Chairman, and he had long involvement with the work of IUCN, the World Conservation Union. He is the co-author of key red data books for IUCN. Gren took a leading role in the negotiations leading to the establishment of CITES, or to give it its full name 'The Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora'.

Time constraints mean that I have to pick and choose from among his many other achievements and offices, so several will unfortunately be left out of this citation. Here are some – he has served on the Council of English Nature, has been a Vice President of the Royal Geographical Society which awarded him the Busk Medal in 1997 (for conservation research in this instance), and he has played an important role in the Royal Horticultural Society. Indeed, only on Monday last he spoke most effectively to about 500 people at a lunch at the Chelsea Flower Show. He worked closely with Peter Scott and the Wildfowl and Wetlands Trust and was involved in

development of the London Wetlands Centre at Barnes. Gren has been a leading light in the Surrey Wildlife Trust, and has worked on committees for English Nature. At Kew, he had a term as President of the Kew Guild.

Gren, we hope you will enjoy this medal, for in awarding it we express the great respect held for you by Fellows of the Linnean Society, and it is a token of recognition of the service that you have given us. Gren became a Fellow in 1960, was a Council Member for the first time between 1978 and 1982, and has been a Vice President twice, from 1979 to 1980, and 1981 to 1982. He has been Chairman of the Library committee – from 1976 until he became Treasurer in 1995, this latter post he holds so effectively today. It is for his exceptional service to the Society that I have immense pleasure in presenting him with the Linnean Medal today. He has helped develop the library beyond recognition – his enthusiasm for and, indeed, love of books has been put to excellent use. (Gren is an expert bookbinder, amongst his other talents, and has a keen interest in botanical art.)

However, it is as our Treasurer that he has really excelled. He has helped us build up reserves that have enabled the Society to devote £500,000 to the digitisation projects – to which he has lent his expert hand. Gren has helped steer us through most difficult negotiations on the lease of the buildings to a point where we can develop them to be fit for the cultivation of natural history appropriate to the 21st century. He is a team player, and his ability to help select and appoint experts to carry out specialist tasks has paid dividends. His efforts to maintain the help of an excellent team of advisory finance experts in the Finance Committee have been rewarded! He has inspired us, given us courage when things seemed impossible, and brought us successfully to this time of celebration. He acknowledges the help given to him by others, and they feel a share of his success. He has explained the incomprehensible to those who find accounts at the most dull, or at the least to be tolerated as a legal requirement of a charity and passed over as quickly as possible! I hope he will continue to entertain us with the present accounts, later today. I am sure he will be keen to point out that real fund-raising starts at home!

It is most appropriate that, in this Tercentenary year celebrating the birth of Linnaeus – without whom none of us would be meeting like this today – you should be awarded the third Linnean Medal given by the Society, Gren. As President, I am proud to be associated with you, and to have the honour of making this presentation.

- b. The President presented the **2007 Linnean Medal for Botany** to **Dr Phillip Cribb FLS** of the Royal Botanic Gardens, Kew. *Botanical Secretary Dr Sandy Knapp* read the citation* which was prepared by **Dr David Simpson FLS** of the Royal Botanic Gardens, Kew:

Dr Phillip Cribb retired from the Royal Botanic Gardens Kew in March 2006 after completing 32 years' service. During that time he was extremely successful in undertaking key roles at Kew, notably as Head of Orchids, Assistant Keeper for the Monocots and, latterly, Deputy Keeper of the Herbarium. He also played a leading role in establishing and maintaining Kew as a world leader in monocot systematics.

Phil is very well known and respected in both plant systematics and horticultural communities. He has had an outstandingly productive research career resulting in 30 books and over 350 papers, with more on the way. His principal focus has been the systematics of Old World orchids, particularly from tropical Africa and Asia. His monographic work has concentrated on genera of importance to horticulture and

conservation (e.g. *Paphiopedilum*, *Cypripedium*, *Pleione*, *Cymbidium*, *Dendrobium*) and the classification of the family as a whole through the *Genera Orchidacearum* project. Floristic work on tropical Africa has been completed; China and Madagascar are current foci with the English edition of *Flora of China Orchidaceae* and a *Field Guide to Madagascan orchids* in preparation.

At a broader level Phil led the development of the *World Checklist of Monocots* which is now available on the web. This is a monumental achievement, providing the accepted names and synonyms of all known Monocots with information about their distribution and life-form.

Phil has received a number of awards for his work including the RHS Westonbirt Medal in 2001, the Orchid Society of SE Asia's Gold Medal and Fellowship in 2005, the American Orchid Society's Gold Medal in 2005 and the Orchid Digest Foundation's Meritorious Service Medal in 2005. In 2006 he was awarded the Royal Horticultural Society's prestigious Veitch Memorial Medal for his scientific research into orchids.

Phil has been instrumental in developing Orchid research at Kew and beyond, being very adept at obtaining funding from a wide range of sources. He is a leading light at international orchid conferences and is often involved in their organisation. He has served in various capacities with a number of other organisations including the IUCN/SSC/ Orchid Specialist Group (Co-Founder and Chair); Orchid Conservation International (Co-Founder, Chair and Trustee), the Gilbert White and Oates Museum, Selborne (Trustee) and the Spelthorne Natural History Society (President).

In view of the exceptional service that Phil has given to systematics and natural history, and the fact that he is actively continuing his research, we should like to nominate him for the 2007 Linnean Medal for Botany.

- c. The President said that the **2007 Linnean Medal for Zoology** had been awarded to **Professor Thomas Cavalier-Smith FRS FLS** of the Department of Zoology, University of Oxford, who was unable to be present. The citation* composed by **Prof. Geoffrey Boxshall FRS FLS**, of the Natural History Museum, and was read by the *Zoological Secretary, Dr Vaughan Southgate* who said:

Prof Cavalier-Smith has published extensively on the classification of protists and has described over eighty classes and about twenty phyla. One of his major contributions was to propose a sixth kingdom of life: the Chromista. In 1981, Cavalier-Smith postulated that only those groups of organisms which acquired chloroplasts by primary endosymbiosis and which have a double chloroplast envelope, namely, the three plant divisions Chlorophyta, Rhodophyta, and Glaucophyta, should constitute the true plant kingdom. He proposed classifying as a sixth kingdom, independent of the plants, those algae whose chloroplasts, acquired by secondary endosymbiosis, possess three or four bounding membranes – the Chromista. He also proposed that all Chromista and Alveolata share the same common ancestor, a claim later supported by studies of morphological and molecular evidence by other researchers. He named this new group the Chromalveolates.

Cavalier-Smith's system for the classification of prokaryotes divides the bacteria into two subkingdoms, Negibacteria (bounded by a double cell membrane) and Unibacteria (bounded by a single cell membrane and including both the phyla Archaeobacteria and Posibacteria). He places Archaeobacteria in a clade which he has named "neomura" which has a great many characters in common with the eukaryotes,

but he concluded that these two taxa are sister groups rather than representing an evolutionary pathway from the archaeobacteria to the eukaryotes.

Cavalier-Smith has also published at length on issues such as endosymbiosis, the origin of cellular organelles and genome size evolution. In investigating the origin of eukaryotes, Cavalier Smith has studied the origins of the nuclear membrane, the intracellular membrane system, the cytoskeleton, flagella, mitosis, exocytosis, histone proteins, nucleosomes, introns, splicing, and other important eukaryote structures and functions, and has demonstrated that most do not have endosymbiotic origins. He has further shown that the endosymbiotic acquisition of chloroplasts occurred as a single event in the case of primary endosymbiosis, and as a single event in each of two lineages, the Chlorophyta and Rhodophyta, in the case of secondary endosymbiosis.

Prof Cavalier-Smith has a very high international profile – cemented by the award of the prestigious Japan International Prize for Biology in 2004. However, many of his strongest claims have been controversial and have not gained widespread acceptance in the global scientific community, particularly as his schemes rely heavily on paraphyletic taxa.

- d. The President presented the **2007 Bicentenary Medal** to **Dr. Maximilian J Telford FLS** of University College, London. The citation*, prepared by the **Dr Tim Littlewood FLS** of the Natural History Museum, and read by *the Editorial Secretary, Dr John Edmondson*, was as follows:

Dr Max Telford is a zoologist who utilizes modern molecular based techniques in addressing big questions in animal evolution. With a foot firmly in traditional zoology and comparative biology, Max has embraced modern systematics using gene and genome data, and molecular biology combined with evolutionary developmental biology (evo-devo), in resolving deep branches in animal phylogenies and the origins and evolution of major body plans amongst the Metazoa. He is a truly modern integrative systematist, unafraid of generating, handling and analysing complex data sets from a diversity of biological disciplines.

Importantly, he addresses questions in a broad, historical and comparative context. Max has distinguished himself in a number of evolutionary disciplines, from pursuing an understanding of wider metazoan relationships (using molecular systematics and phylogenomics) to elucidating the function of genes during evolutionary development in a diversity of animal phyla.

The single characteristic that highlights Max's skill, and enthuses colleagues, collaborators and students alike, is his ability to hone in on and ask the right question. Max not only sees the most pertinent questions, but has the skill and breadth of knowledge to frame testable hypotheses, and to test them with a diversity of approaches. He is one year short of his 40th birthday and has achieved a significant output of high quality scientific articles on animal evolution, with publications in *Nature*, *PNAS*, *Evolution & Development*, *Current Biology* to name but a few of the more prominent journals.

Max's CV highlights his professional achievements, but there are personal qualities worth noting. I have known and worked with Max for a number of years, since we were both postdocs at the Natural History Museum. Since that time, Max's career progression has been exceptional and well deserved. Max has high expectations of himself and leads by example. Having built up a very strong research group and

research programme, Max is an accomplished mentor, teaching and supervising students and postdoctoral researchers. He is currently lead coordinator of an international group of researchers on an EU-funded programme on evo-devo (ZooNet). Max is well liked and highly regarded as a colleague. He has a well-deserved international reputation as a researcher. There are no pretensions with Max and he has never needed to inflate his achievements. He is a deep thinker and a passionate problem solver. Considering his great achievements to date and likely greater ones ahead, I can think of no better deserving recipient of the Bicentenary Medal than Max Telford.

- e. The President presented the **2007 H H Bloomer Award** to **Mr John Tennent FLS**. *The President* read the following citation* prepared by **Dr Dick Vane-Wright FLS, Dr Jeremy Holloway FLS and Dr Malcolm Scoble FLS**:

John Tennent joined the Army in 1968, at the age of nineteen. His first entomological publication, on the Common Blue butterfly in Northern Ireland, appeared in 1976. After numerous postings, including Belize (for which he was awarded the British Empire Medal in 1981), John retired from military service in 1991. Since then he has published over 120 papers, letters and reviews on various matters lepidopterological, concerning history, ecology, behaviour, nomenclature, new species – and even poetry. The second page of this citation lists a dozen of his most significant publications, including two books. In 1998 he was awarded an MSc in Conservation Management by the University of Kent for his thesis on the *Biodiversity and Biogeography of Solomon Islands Butterflies*, which formed the basis of his 2002 work on the butterflies of the Solomons.

His two books (the other is on the butterflies of North Africa) epitomize the most original aspect of his contribution. John has specialized in identifying areas of the world hitherto lacking comprehensive accounts of their butterfly fauna, carrying out exhaustive searches of literature and collections, and then spending weeks, sometimes many months in the field, making and bringing back comprehensive samples on which to base authoritative treatments. This process is ongoing, with much further work planned. Since 1991 he has spent a grand total of four years working in institutions abroad or carrying out field work to these ends. Literally half of this time has been devoted to fieldwork in the Solomon Islands and Vanuatu, sometimes under very difficult and even dangerous circumstances, and often traveling to islands without air connections and only occasional boat services.

This truly intrepid exploration, including Pacific islands never sampled for Lepidoptera previously, has led to the discovery of almost innumerable new populations, the recognition of many new races, and a significant number of entirely new species of butterflies and hawkmoths. His work on the Solomons, Vanuatu and general Pacific fauna, culminating in his major 2006 paper in *Zootaxa*, has brought our knowledge of Pacific butterflies to a point where we can begin to make meaningful zoogeographical comparisons with the birds.

Throughout this period he has done all of this work in a purely voluntary, amateur capacity. To finance his trips, however, he has often been dependent on funds administered by the Linnean Society, the Natural History Museum, the Royal Entomological Society and the British Ecological Society. In all cases he has written up the results in exemplary fashion, and completed the necessary reports or publications unfailingly within the agreed timetable. As a result, the necessary grants have continued to flow. Taken altogether, his entomological activities represent a

remarkable individual achievement in planning, scholarly research, fieldwork and publication. This endeavour has resulted in a genuinely significant improvement in our knowledge and understanding of the systematics, geographical distribution and natural history of some key elements of the world Lepidoptera fauna.

- f. The President presented the **2007 Irene Manton Prize** to **Dr. Lionel Navarro**. The citation* prepared and read by the *Botanical Secretary, Dr Sandy Knapp*, was as follows:

Our late President, Professor Irene Manton, instituted an annual prize for the best doctoral thesis in Plant Science in the United Kingdom. Our Tercentenary year saw many nominations, all of superb quality – gratifying proof that Plant Science is alive and well in the UK! This year’s winner is Dr Lionel Navarro, now at the Institut de Biologie Moléculaire of CNRS in Strasbourg, who received his doctorate from the University of East Anglia under the supervision of Professor Jonathan Jones of the John Innes Centre. His thesis title was “Flagellin-induced immune responses in *Arabidopsis thaliana*”.

In his nomination of Dr. Navarro for the Manton prize, Professor Jones said “Lionel Navarro is quite simply the best graduate student I have ever had, and by a considerable margin ... he manifested not only superb grasp of new technology, but also a grasp of what constitutes interesting biology...his paper this year on how plants use a microRNA to regulate auxin signalling during disease and defence is a landmark paper.” One of the assessment committee members described the thesis as a “tour de force”; and we all feel he is likely to make a great impact on the field of plant science in the future.

Lionel Navarro’s thesis would have made our late President Irene Manton proud at the way in which plant science is strong and flourishing in the United Kingdom today. Many congratulations.

- g. The President presented the **2007 Jill Smythies Award** for published botanical art to **Mr Jan Hendrik van Os**. The citation*, composed by **Dr Pieter Baas FLS** and read by the *Collections Secretary, Ms Susan Gove*, was as follows:

Jan van Os (1942) is an outstanding botanical artist who has illustrated numerous taxonomic revisions by staff members of the National Herbarium of the Netherlands (NHN) and botanists from elsewhere contributing to NHN projects, especially of plants from the Malesian region. His technique of using fine punctuation to recreate a three dimensional impression of the pressed and often quite miserable herbarium specimens is extremely effective, and his analytical drawings betray an excellent understanding of the morphology of plants, which make his illustrations optimally informative. His work has been published over many years in the journals *Blumea* (ISSN 0006-5196), *Persoonia* (ISSN 90-71236-47-1) and *Gorteria* (ISSN 0017-2294) and in the multi-volume Flora series *Flora Malesiana* (e.g. Vol. 14., 2000, Myristicaceae, ISBN 90-71236-47-1). Although officially retired since 2003 he continues his work in an honorary and voluntary capacity at the NHN.

Jan’s association with herbarium botany is a unique one: he started as a junior assistant of the technical collection management section at the early age of 14, and could only later develop his talent as botanical artist by attending evening classes at the Royal Academy of Arts in The Hague from 1965—1970. Between 1985 and 2003 he was head of the botanical art section of the NHN. In addition to his prolific production of very fine botanical illustrations he trained several young botanical artists from the

- Netherlands and abroad (notably from Indonesia and Japan), who have since entered successful careers.
10. **The Treasurer** presented the Accounts for 2006. These are to be found in the 2006 Annual Report. The Treasurer explained that the deficit was less than expected for 2006 but that was because some expenditure had had to be postponed, so he expected a bigger deficit in 2007. He pointed out that expenditure on the CARLS project will total £1.1m, and he stressed the need for the Society to grow. The President then warmly thanked the Treasurer.
 11. **Dr Dawn Sanders** of the Audit Review Committee proposed: “In accordance with Bye-Law 12.6, the Annual Statement of Accounts for 2006, and the report of the professional auditors, were carefully examined by the Audit Review Committee of Fellows on 12th March 2007. On behalf of the Committee, of which I was a member, I am pleased to report to the Anniversary Meeting that we concluded that the Accounts give a true and fair picture of the Society’s finances as at 31st December 2006. I therefore move that they be accepted.” This was carried unanimously on a show of hands.
 12. **The Treasurer** moved that the firm of Knox Cropper, of 8/9 Well Court, EC4M 9DN, be appointed as auditors in accordance with Bye-Law 12.5, which was accepted unanimously. He then proposed the continuation of the banking arrangements with Lloyds TSB which the Fellows also agreed. The Treasurer closed by thanking all the staff and volunteers for their hard work and commitment throughout the year. **The President** paid tribute to the Treasurer’s great contribution to the Society.
 13. **The President** then gave his address on *The View from Inside*
 14. On behalf of the Fellows Professor Mike Claridge said that he felt that the address was a very worthy one for the Linnaean Tercentenary and he thanked the President for making his subject so interesting.
 15. Professor Cutler thanked all the retiring Council members for their valuable service. He then nominated as his Vice-Presidents **Dr Vaughan Southgate, Dr Jenny Edmonds, Prof Richard Bateman** and **Dr Sandy Knapp**.
 16. **Any other valid business.**
 - a. Bouquets were presented to the wives of the President and Treasurer
 - b. It was agreed that the Society should congratulate Fortnum & Mason on their Tercentenary and on the Gold Medal they won at Chelsea Flower Show
 - c. The President announced that the Society’s stand had won a Silver Gilt Medal at Chelsea Flower Show and congratulated the Head of Development, who had supervised the project, and all who had worked with her.
 17. The President then declared the meeting closed, noting the dates of forthcoming meetings.
 18. The next Anniversary Meeting will be on **Friday, 23rd May 2008 at 5 pm.**

Adrian Thomas, Executive Secretary

*The citations formed the basis of what was actually said at the meeting.

The Linnean Society

Programme

- 1st Oct. 09.00 LINNAEUS 300 – THE FUTURE OF HIS SCIENCE
An international symposium marking the 300th birthday of Carl Linnaeus at the Royal Netherlands Academy of Arts and Sciences, Amsterdam
- 11th Oct.* Thurs. LINNEAUS AND LIFE UNDER THE MICROSCOPE
Brian Ford FLS Election of new Fellows and Book Sale
- 18th Oct. Thurs. PARASITES, PEOPLE AND POVERTY
17.30 Lord May PPRS FLS
- 24th Oct. Wed. Palaeobotany Specialist Group (day meeting)
† Peta Hayes FLS
- 25th Oct. Thurs. Palynology Specialist Group (day meeting)
† Carol Furness FLS
- 29th Oct. Mon. WHERE WAS HOMER'S ITHACA?
17.30 Robert Bittlestone FGS, Prof. James Diggle & Prof. John Underhill FGS.
A Burlington House Lecture at the Geological Society
Entry by (free) ticket only: contact Jayne Phenton, Society of Antiquaries
- 31st Oct. Wed. ORCHID EVOLUTIONARY BIOLOGY AND CONSERVATION
– 2nd Nov. Fri. – FROM LINNAEUS TO THE 21st CENTURY
† Mark Chase FRS FLS and Michael Fay FLS
Three-day conference with one day at Royal Botanic Gardens, Kew
Jodrell Meeting Room, Royal Botanic Gardens, Kew
Evening reception at the Linnean Society, Thursday 1 November
- 9th Nov. Fri. British Society for Parasitology Autumn Symposium.
- 15th Nov. Thurs. *Musa Cliffortiana* Evening meeting and book launch
17.30 Tod Stuessy FLS, Stephen Freer FLS and Staffan Mueller-Wille
- 22nd Nov. Thurs. COLOUR DESIGN AND ENGINEERING: COLOUR IN
and PLANTS AND ANIMALS – INSPIRATION FOR DESIGN
23rd Nov. Fri. † David Cutler PLS, Michael Collins FLS and Chris Brown
Two-day meeting jointly with the Institution of Mechanical Engineers
Day 1 at the Linnean Society, Day 2 at Inst. Mech. Engineers
- 29th Nov. Thurs. DEBATE ON ISSUES IN SYSTEMATIC BIOLOGY
Evening meeting: entry by (free) ticket only: contact Victoria Smith
- 13th Dec. Thurs. Tercentenary Medal Award Ceremony & Reception.
Details to follow: entry by (free) ticket only: contact Victoria Smith.

† organiser

* Admission of Fellows

Unless stated otherwise, all meetings are held in the Society's Rooms. Evening meetings start at 18.00 with tea available in the library from 17.30. For further details please contact the Society office or consult the website – address inside the front cover.

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