

The Linnaean Tercentenary in London: From the 18th to the 21st Century

The Linnean Society of London is a leading forum for contemporary discussions on natural history, genetics, systematics, biology and the history of plant and animal taxonomy. Founded in 1788, the Society takes its name from the great Swedish naturalist, Carl Linnaeus (1707-1778) who developed the system of binomial nomenclature. This system today provides the fundamental framework for knowledge of the biota of the Earth, supporting effective conservation measures and the sustainable use of biodiversity. Linnaeus' library, botanical and zoological collections have been in the Society's keeping since 1829, having been purchased from the estate of the Society's first President, Sir James Edward Smith (1759-1828).

The year 2007 is a very special time in the Society's history as it celebrates the Tercentenary of the birth of Linnaeus. Its importance was recognised five years ago when the Society appointed a Tercentenary Co-ordinator to plan a year-long programme. Events have been organised worldwide in recognition of the importance of his legacy and The Linnean Society of London planned its own exciting programme. Before this a number of important projects had already been initiated by the Society, including the provision of digital on-line access to the Linnaean biological collections, access to the digital images of the newly conserved Linnaean



The King and Queen of Sweden with the President of the Linnean Society

correspondence, and an online collaborative library catalogue providing bibliographic and location information on all publications by Linnaeus and his pupils. The Society, with its publisher Wiley-Blackwell, are now in the process of digitising all earlier legacy serial publications of the Society, beginning with the first publication of the Transactions in 1791. All of these projects are now being delivered online and their completion will enable world-wide access to all of these key collections for the first time.

The Tercentenary year was launched at an evening reception in December 2006. The scientific meetings began

with a presentation by Dr Sandra Knapp on *Linnaeus' Global Outreach* setting the theme for the year ahead. In February Sir David King addressed the Society on the current state of knowledge on *Climate Change*. Joint meetings with the Geological Society of London, the Royal Society, the Royal Botanic Gardens Kew, the Royal Horticultural Society, the Zoological Society of London and the Liverpool Athenaeum provided opportunities for the wider scientific community to discuss the role of Linnaean taxonomy and related subjects giving a broad view of progress since the time of Linnaeus.

A visit from the King and Queen of Sweden on a Sunday in May heralded the opening of the Chelsea Flower show, where the Society's exhibit 'Linnaeus' Legacy: 300 years of naming nature' gained a silver-gilt medal. The same week saw the launch of the book *Order out of Chaos* by Dr Charlie Jarvis, which brings together for the first time information on the typification of all of Linnaeus' plant names. Since 1981, hundreds of botanists around the globe have been studying names, specimens and illustrations in order to allow type specimens to be designated so that Linnaeus' names can be applied clearly and consistently worldwide.

This was followed by our own Tercentenary Anniversary meeting, with its associated tributes, followed the next day by an Anglo-Swedish symposium on *A tribute to Linnaeus and his legacy* (combining the names of the



Herbarium and Library

two Linnaean gardens/exhibits at Chelsea). The visit of the Emperor and Empress of Japan took place immediately after the end of Chelsea Flower Show. The Emperor is a fish biologist and an Honorary Fellow of the Society and addressed the meeting on *Linnaeus and Taxonomy in Japan*. This was later published by *Nature* (Nature 446, 139, 12 July 2007). The tercentenary month ended with an Anglo-Swedish meeting titled *In Linnaeus' Wake*, which combined a whole day meeting on different aspects of marine biology with an evening visit to the replica Swedish 18th Century Merchant ship, the *Göteborg III*, moored in London Docks. That gave all a chance to experience first-hand some of the difficulties experienced by the disciples of Linnaeus as they travelled the world to gather specimens.

Two children's lectures were held in conjunction with the Royal Institution. Other events took place at the Royal Botanic Gardens, Kew, Chelsea Physic Garden and included further joint meetings in the Society's Rooms with the Royal Society for Tropical Medicine and Hygiene, the International Association of Plant Taxonomy and the Institution of Mechanical Engineers. A major international conference in the Netherlands, *Linnaeus 300 - the future of his science*, sponsored by the Society, paid homage to the role of that country in launching Linnaeus and his concepts. Forthcoming meetings include a keynote address on *Parasites, people and poverty* by Lord May, a debate on issues in systematic biology and a final Tercentenary reception and award ceremony in mid December will bring the busy year to a close.

It was at a meeting of the Society that Darwin and Wallace's ideas on evolution by natural selection were first presented. In the early 20th century, the Society was a crucible for the new sciences of evolutionary biology, genetics and ecology, as it was again some fifty years later for the measurement of biodiversity and the practice of conservation. Latterly, the Society has been a midwife to pioneering taxonomic techniques such as cladistics and genomics; it has sparked important developments within medicine and the social sciences through the work of its ethnobotanical Fellows. The availability of online sources to serve the taxonomic community is seen as the best way of fulfilling the aims of our Royal Charter which cites the Society's role as 'the cultivation of the Science of Natural History in all its branches'.

The New Royal Institution

Baroness Greenfield and Kristen Dodd

For over 200 years, the Royal Institution of Great Britain (RI) has been 'diffusing science for the common purpose of life'. Our vision is to celebrate science in all its aspects; as well as cutting edge research, but also to promote and facilitate the application of science to politics, education and most important of all, the needs of the general public. The aim of the RI has always been to encapsulate a unique range of activities and events for the general public. We have a long established Young Person's Programme, a vigorous history of science department, ground breaking laboratory research and more recently a Science Media Centre.

It is an independent organisation, free from any private or public sector agendas. Our funding is derived from venue hire, membership fees, corporate sponsorship, gifts and donations, legacies, events and overheads from research.

From January 2006-March 2008, the RI is undergoing a £20 million major refurbishment partly supported by the Heritage Lottery Fund so that we can meet the demands and challenges of democratising science in the 21st Century. The Grade 1 listed building in Mayfair is being re-interpreted by world-renowned architects, Terry



The grand staircase



The Atrium

Farrell and Partners, to provide an iconic series of spaces with new opportunities for listening, thinking and talking about science and its impact on all aspects of our lives.

As Director of the Royal Institution, I feel privileged that this current milestone development of a major refurbishment is happening on my watch. Now all the various activities that have made the RI unique by taking place under one roof will do so under a roof that will become an architectural icon in London. The refurbishment will free up over 40% more space.

As well as a vastly extended public events programme, our facilities will be on offer to outside organisations beyond the scientific community. From spring 2008, these facilities will include a bar, café and restaurant, meeting rooms, and of course the newly refurbished, world famous Faraday Theatre. Faraday's famous theatre, which appeared on the £20 note in the late 1990s, will be equipped with state-of-the-art audio visual technology.

With the Theatre as the traditional icon of the Royal Institution, Sir Terry Farrell was commissioned to conceptualise a modern, original, *piece de resistance* that will transport the RI into the 21st Century. A 5-storey, glazed glass atrium with a scenic lift will be erected as the social focal point of the building. The atrium will not only connect all three floors of exhibition and social spaces, but will offer improved disabled access.

The former Faraday Museum will be re-invented to showcase interactive exhibitions that will encourage all visitors to learn about and engage with science. Amongst the unique items on display are Humphry Davy's miner's safety lamp, Michael Faraday's induction ring, the tube by which John Tyndall explained why the sky is blue, James Dewar's 'Thermos flask' and the X-ray diffractometer used by William and Lawrence Bragg.

The new exhibition will communicate the stories of the world-changing discoveries that originated at the Royal Institution. The new addition of a PDA tour will enhance the visitor's

experience and understanding of the scientific journey that unfolded at the RI.

One of the exciting features will be a reconstruction of Faraday's lab on its original site. This is where Faraday made some of the most important chemical and physical discoveries of the 19th century. It was once the servants' hall and Faraday took it over during the 1820s for his experiments on magnetism. In direct contrast, the construction of a state-of-the-art glass fronted laboratory opposite Faraday's will enable visitors to see for themselves real life science against a backdrop of scientific heritage.

Scientific research continues to be a distinguishing aspect of the Royal Institution with the Davy Faraday Research Laboratory (DFRL). The DFRL was opened in 1896 and has been home to the pioneering work on crystallography by William and Lawrence Bragg, and the ground-breaking development of laser spectroscopy and photochemistry by George Porter and David Phillips. This rich tradition of scientific excellence will be continued with a renewed focus on biological applications of nanotechnology. Indeed, we are very excited to be hosting experimental science in all its aspects, particularly by catering for the researchers of the future.

The new building will house a Young Scientists' Centre (YSC), a unique concept in the UK that aims to provide experimental space for young people to explore science from first principles, and essentially driven by their own curiosity. The YSC will offer teachers and students the chance to ask questions and design ways to answer them, for example taking a computer apart or extracting their DNA, unconstrained by the boundaries of the national curriculum. Indeed the spirit is encapsulated in the strap line: 'where investigation meets experiment'. We are delighted that Mr Jim Knight, Minister of State for Schools and Learners, has given his full support to this initiative.

The Royal Institution has always been an important place for scientific discovery, debate and showcase. In a time when the impact of science and technology on everyone's lives is greater than at any other point in history, the new facilities will ensure that the RI is equipped to continue this work into the 21st Century.