



The
LINNEAN
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of London

A living forum for biology

'God created, Linnaeus ordered' ...and Linnaeus Link delivers

Elaine Charwat explains how the Linnaeus Link Union Catalogue is pulling together the work and legacy of Carl Linnaeus, the man who classified and described the natural world and named our species 'Homo sapiens'.



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LINNAEUS Link is a comprehensive online Union Catalogue of Linnaean material, facilitating research and access for scholars worldwide. It is completely free to use or to join as a partner. This international project with partner institutions worldwide is coordinated, maintained and funded by the Linnean Society of London.

Carl Linnaeus (1707-1778) summarised his position as one of the founding fathers of modern biology with only four words: Deus creavit, Linnaeus deposuit – 'God created, Linnaeus ordered'. If that seems vainglorious, it is worth remembering that this is the man who organised all recorded knowledge about the natural world, as well as distinguishing and naming 7,700 plants and 4,400 animals. He established the system of assigning two Latin names to all living organisms (binomial nomenclature), which is still used today. Quite poignantly, he was also one of the first scientific scholars to regard man as an integral part of the natural world. Our place within the natural order was



Linnaeus Link

established, and Linnaeus confirmed the uniqueness of our species by naming us *Homo sapiens* in 1758.

In order to celebrate Linnaeus' great mind and legacy, the Linnean Society of London has been the catalyst behind an ambitious project to bring order to the productive chaos growing out of Linnaeus' combined collections: countless prints and reprints, editions, translations, annotations, interpretations, adaptations and contemplations – scientific, historical, bibliographic or otherwise.

The Library is on the first floor of The Linnean Society of London at Burlington House, Piccadilly. Due to essential building works, please check before visiting in person (020 7434 4479 ext 23, library@linnean.org or www.linnean.org/Library-and-Archives).



Partners celebrating the launch of the new Linnaeus Link at the National Botanic Garden of Belgium in 2012. Project Coordinator Lynda Brooks is second from the left. Photo © Franck Hidvegi.



Elaine and Gunhild Bäck from Uppsala University Library at the launch of the new Linnaeus Link in 2012.

Early beginnings

The absence of easily accessible holdings information regarding the works of Linnaeus made past research difficult. It is still essential, in taxonomic research, to reference the works of Carl Linnaeus, as he was the first to classify and describe many species of plants and animals.

In 1999, colleagues from the Linnean Society of London, the Natural History Museum, London (NHM) and the Linnaean Correspondence Project in Sweden suggested building an online union catalogue which would pull together the Linnaean holdings of libraries all across the world. The society was ideally placed to champion this project, as it holds the single most important Linnaean collection: the library, correspondence, manuscripts and specimen collection of the great man himself.

But Linnaeus Link was to be much more than just an online resource. It was set up as a truly collaborative, international project, with the contributing organisations becoming partners in a network that would also pull together the knowledge and excellence of the various institutions. An important part of that remit was to support each other by exchanging records and information.

First steps

The first obvious problem was that even major repositories of Linnaeus' works often did not have online catalogues, or collections had not been properly catalogued, so an early primary goal of the Linnaeus Link project was to encourage and support institutions in cataloguing their Linnaean holdings. The first step was to create a standardised survey which would be sent out to every library in the world with known, or suspected, major Linnaean holdings. The survey not only asked about the material contained in their Linnaean collections, but also about the level and amount of cataloguing done, as well as the cataloguing standards and systems used.

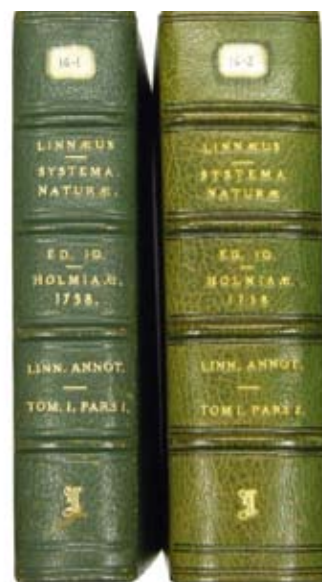
When the first surveys were returned, they gave an inkling of what was going to be the biggest challenge for the Linnaeus Link Union Catalogue, right up to the present time – a hotchpotch of cataloguing standards and systems, encodings, local definitions and usage of fields.

First catalogue launched

The first Linnaeus Link Union Catalogue was launched in 2007, with the Linnean Society having funded the software development and a three-year cataloguing project of the Natural History Museum's (London) extensive Linnaean holdings. The Union Catalogue contained more than 1,550 bibliographical records from institutions ranging from the British Library (BL) and the NHM to the University Library Uppsala and the Botanical Gardens Berlin (BGBM). The hosting and responsibility for Linnaeus Link was taken on by the Linnean Society of London, which, by that time, had created a wide range of virtual resources, with high resolution images of Linnaeus' collections freely available online.

For every Union Catalogue, one thing is essential: an identifier, which allows the system to recognise and group together records for the same bibliographic entity from different institutions. Ideally, this would be a unique identifier such as an ISBN number. However, with pre-ISBN material, things can get very messy. Potential variations in cataloguing long 18th century titles, and even of authors' names, are impressive;

Carl Linnaeus, *Systema Naturae*, from his own library.



Linnaean insect specimen – *Sphinx atropos*, or Death's Head Hawk moth.



The books, butterflies and Herbarium specimens of Linnaeus at the Linnean Society of London.

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in addition, the amount of work required to get the system to 'learn' what belongs together is forbidding. Instead, the tool of choice is using unique reference numbers to standard bibliographies such as the English Short Title Catalogue (ESTC).

With regard to Linnaeus Link, we were fortunate to have the perfect tool to hand – an exhaustive bibliography of Linnaeus' works and legacy, complete with unique reference numbers for every single item, distinguishing even the slightest variations in reprints. This bibliography was published by Basil Soulsby in 1933 as *A Catalogue of the Works of Linnaeus* [...].

In effect, Linnaeus Link now continues this definitive bibliography of Linnaean works by continuing to assign and publish 'post-Soulsby' numbers to material that either slipped through the net of the initial bibliography, or was published later.

The new Linnaeus Link

While the collaborative aspect of the project flourished and new partners continued to join, it soon became clear that the platform was struggling with the huge variations in cataloguing and encoding. Special characters were a particular problem, and were often not displayed correctly – quite a drawback for a truly international resource!

By the time I joined the Linnean Society of London as Deputy Librarian and Linnaeus Link Administrator in 2011, the design and functionality of the old Union Catalogue were beginning to look a bit tired. So, with the Society's Librarian and Project Coordinator Lynda Brooks, I was soon immersed in the process of giving Linnaeus Link a gentle, but effective, make-over.

A brand new system was designed and constructed by the Oxford-based company 67 Bricks with considerable input from all of the Linnaeus Link partners, and it was launched in October 2012.

The new Linnaeus Link is now much more flexible to suit our international partners with their diverse systems and cataloguing set-ups. A particular feature we were most eager to add is the ability to link straight from the Linnaeus Link record to digitised material. Other new benefits for Linnaeus Link users include the sophisticated



First edition of the work that made Linnaeus famous – *Systema Naturae* (1735) showing man classified as 'Homo' in the same category as apes and sloths, with the epithet 'Know thyself', which gave rise to 'Homo sapiens' in a later edition of the work in 1758.



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There are now nearly 9,000 bibliographic records held in Linnaeus Link.

Linnaean Herbarium packets in the strongroom at the Linnean Society of London.



The Reading Room of the Linnean Society of London Library.

search functionality which is synonym-aware and copes with alternative spellings and special characters. Through fuzzy searching, the system is able to provide 'did you mean' suggestions for every unsuccessful search term in a query.

An innovative and unique feature is the new Linnaeus Link tab-view.

Instead of amalgamating all records for one bibliographic item into one 'ideal' record, the tab view reveals the full bibliographic wealth of every individual record, especially the copy-specific information of a particular work. This makes Linnaeus Link an invaluable tool for bibliographic research, identifying and highlighting copy-specific information like provenance details, annotations, collation, etc.

The new Linnaeus Link Union Catalogue currently has 17 Partners (and more lined up to join). There are now nearly 9,000 bibliographic records held in Linnaeus Link. Overall, the new system offers a wealth of detail with precision of search, identification and display. It would hopefully have satisfied the high standards of that master of organisation – Carl Linnaeus himself. [U]

Further information

Carl Linnaeus and his legacy at your fingertips:

www.Linnaeuslink.org

To learn more about our Online Collections, please visit

www.linnean.org/Library-and-Archives/online-collections.