

The Linnaean Plant Name Typification Project

25 YEARS IN THE MAKING

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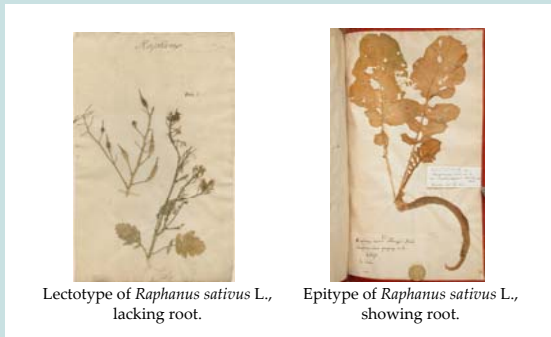
Portrait of Linnaeus by Lundberg, by kind permission of the Linnaeus Museum, Uppsala, Sweden

The Project

A project to establish the correct, permanent use of the Latin plant names coined by Carl Linnaeus is reaching completion and the results will be published in May 2007. It was Linnaeus' innovation to use a two-word name (binomial) as shorthand for long descriptive phrase names, or polynomials; this Linnaean system of naming living organisms has been his lasting legacy.

Today, usage of names is established by linking each new species to a specific herbarium specimen, known as a type. Linnaeus' work long pre-dated this concept, so choosing type specimens (typification) for Linnaean names can be a complex matter for botanists.

Analysis of herbarium specimens



Lectotype of *Raphanus sativus* L., lacking root.

Epitype of *Raphanus sativus* L., showing root.

Careful analysis of plant characters is essential. In the case of *Raphanus sativus* (radish), above, the type specimen lacks roots. As features of the taproot are important in identifying the varied forms of the plant, an additional type (termed an epitype) showing these features has been designated, so as to fix the application of the name accurately.

Sources of information

Linnaeus drew on a variety of sources and the species he recognised were usually based on a number of different elements, including living plants, such as those he had seen in the wild, or in cultivation at the Botanic Garden in Uppsala, as well as herbarium specimens and descriptions and illustrations published by other authors. His concept of a species was often broad enough to encompass what we would now recognise as several different taxa.

Checking a reference cited by Linnaeus



Linnaean herbaria

Preserved plant specimens were extremely important to Linnaeus' work, and are still crucial to taxonomists today. It is perhaps not surprising that almost exactly half of Linnaeus' names find their types in his own herbarium, now housed in the Strong Room of the Linnaean

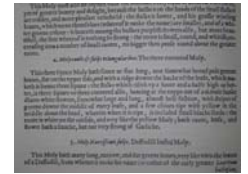
Why We Check Original Sources

Linnaeus often referred to earlier sources. Here, he cited *Park. Par.* 142., t. 143. f. 4 for *Allium triquetrum*, but examination of Parkinson's book (1629) shows this to be an error for f. 6, confirmed by matching the polynomial cited by Linnaeus with that of Parkinson.

Fig. 6 as shown in Parkinson's *Paradisi*, t. 143



Parkinson's corresponding polynomial, listed as No. 4 in the text.



Society of London. This is the single largest Linnaean herbarium (more than 14,300 sheets), with specimens acquired throughout Linnaeus' life. A further ten per cent of types can be found in the George Clifford herbarium, housed at the Natural History Museum. The Bursler herbarium in Uppsala also contains a significant number of types.

The Linnaean database

A searchable database containing typification details for all Linnaean plant names is regularly updated and available online (see below). Where possible, an image of the type material is also provided, viewable as a thumbnail linked to a full-size image.

Order out of Chaos

As a result of this work, the Linnaean Society and the Natural History Museum are co-publishing *Order out of Chaos*, a book which, for the first time, brings together detailed information on all of the plant names published by Linnaeus.



The type of *Crassula pellucida* L., from Dillenius' *Hortus Elthamensis* (1732), an image used in *Order out of Chaos*

<http://www.nhm.ac.uk/research-curation/projects/linnaean-typification/>