BOOK REVIEWS

Order out of Chaos. Linnaean Plant Names and their Types. Charlie Jarvis. London: The Linnean Society of London. 2007. xi + 1016 pp. ISBN 978 09 50620 77 0. £80 (hardback).

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In 1751, Carolus Linnaeus expressed the thought, in his *Philosophia Botanica*, that 'if you do not know the name of things, the knowledge of them is lost too'. Without wasting much time he acted on this thought and started naming plants – effectively and consistently. Even though binomials had occasionally appeared before, it was Linnaeus who greatly developed the concept of a generic name and a specific epithet. Little did he know how great an impact this 'little invention' would have in years to come. Three centuries after his birth we still use this system of naming plants. *Species Plantarum* was the first work in which Linnaeus used binomial names for some 5900 plant species and varieties. Not surprisingly the day of its publication, 1 May 1753, has been indelibly declared as the 'starting point' for the valid publication of names of vascular plants.

As the centuries passed, botanists not only recognised that having binomials instead of clumsy descriptive phrases helped to lessen the chaos, but also realised that the actual headache lies in their unambiguous application to a particular taxon in order to use them in botany or another discipline. Unfortunately, precise methods of designating types came some 250 years too late for Linnaeus and his followers who frequently cited various and (to our joy!) often heterogeneous elements or even references only to earlier works to support new plant descriptions. One cannot fail to observe that Linnaeus was a most fruitful botanist, leaving over 9000 validly published plant names and keeping us pretty busy until now selecting their types.

Charlie Jarvis, the well-known specialist on Linnaean names at the Natural History Museum in London, has dedicated over 20 years of his research life to a single aim: to make significant progress in this monumental task. He and a small team of colleagues have gathered a vast amount of information on Linnaeus, his publications and all the plant names he coined. They have reviewed all the important original material that must be considered when selecting types and have liaised with almost a thousand botanists around the globe, who specialise in a wide range of plant families, before making the final selection. The types of the majority of Linnaean names have now been fixed for the future without further blurring already confusing circumstances. Jarvis and his team did not compromise this approach, leaving us still with some untypified names in groups for which specialists were not available. Yet the basic information about such names and their original materials is given, awaiting future action.

One might assume that this huge book would be of interest only to botanists, taxonomists in particular. No doubt the 750-page-long list of Linnaean names will not

be widely read from start to finish, yet I believe that anyone who is interested in the history of natural sciences will want to own this book for the first 250 pages. It is printed on fine paper, richly illustrated by beautiful colour paintings, line drawings, images of original plant specimens (some of them still retaining the vivid colour of the flowers), images from Linnaean books, his manuscripts and various remarks and sketches.

The first chapter, called 'The art and science of typification', describes the type method, discusses the various elements appearing in Linnaean protologues and explains the process of typification of Linnaean names in great detail. All this is well set in a broader historical context. A number of examples are given, along with a glossary to most of the nomenclatural terms, making the text digestible by interested laymen. The second chapter deals very briefly with Linnaeus's life, focusing mainly on the events contributing to his knowledge of the plants he named. Even though the author explains at the beginning of the chapter that he did not want to repeat previously published accounts, I found the fewer than 10 pages too short and I craved for more details! The third chapter covers the major botanical publications of Linnaeus and the dissertations defended by his students. About 80 works are listed in chronological order with details on their place of publication, new names published and other relevant remarks to be taken into account from a nomenclatural point of view. Similarly, the fourth chapter is dedicated to the most important literature used by Linnaeus, as some of these contain material available for lectotypification. Chapter five focuses on Linnaeus's own main herbarium, his specimens now deposited in various herbaria, and also on collections owned by others which he studied. The sixth chapter then elaborates in greater detail on more than 150 significant collectors and suppliers of specimens including Linnaeus's dedicated students, some of whom did not survive their explorations in far-off countries. An exhaustive list of references is inserted after the sixth chapter.

The seventh and last chapter takes almost three-quarters of the book. All Linnaean names are arranged alphabetically with information on the date and place of publication, type specimen, typification details, current name and other explanatory notes with references to relevant literature.

Throughout the year 2007 botanical institutions around the world have celebrated the 300th anniversary of the birth of this, the most famous Swede. Charlie Jarvis started celebrating over 20 years ago by consolidating an enormous amount of information and finished this book about Linnaeus and his plants in time for his birthday in May.

I am quite sure that Linnaeus, wherever he is now, is very pleased with this systematic, beautiful and extraordinarily well-made book. He might even reconsider his own phrase 'God created, Linnaeus organised'. After turning the last page of this book, one is indeed not very clear who made Order out of Chaos: Carolus Linnaeus or Carolus Jarvis?

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