

REVIEWS

TON ELZEBROEK & KOOP WIND: **Guide to cultivated plants**. CAB International, Wallingford, United Kingdom & Cambridge, Massachusetts, USA. 2008. xi + 540 pp., with 370 figures (colour photographs and line-drawings). ISBN 978-1845-933-562. Price GBP 95.

According to the Foreword, this book's genesis is as follows: "When [the authors] were approaching retirement we recognized the need to capture their knowledge and experience in the form of a book". And the Preface opines that "this book is a standard reference for students of (agricultural) universities and colleges, extension workers, teachers, farmers, horticulturists and in general for all those who are interested in cultivated plants". Does it live up to this accolade?

The book is effectively a compilation of much information, rather in the style of earlier classics such as Purseglove's *Tropical Crops* and the PROSEA volumes (which one suspects were major sources for the authors) on a number (346 in 92 "main entries") of cultivated economic plants. However, the title would suggest a broader canvas, but here there is nothing on the gigantic ornamental horticulture industry (though notes creep in under *Ribes*) besides timbers, dye-plants and medicinal plants. The subjects included are arranged in a classical (and alphabetical) way: Beverages and Tobacco, Edible fruits and Nuts, Elastomers; Fibre Crops; Forages; Oil Crops; Protein Crops, Spices and Flavourings, Starch Crops, Sugar Crops and Vegetables. There is a 21-page bibliography and a six-page glossary of botanical terms, with indexes by Latin name and English common name.

There is no general introduction, the text beginning immediately with chocolate; there is neither conclusion nor general principles drawn out of the *pabulum*, the text ending abruptly with tomato. Very seriously, not one of the many references in the bibliography is cited in the text. There is therefore no supporting evidence for many statements made and no immediate way for the student to be able to follow the literature to gain greater insight and information. The figures (some very small) have no scales.

Much of the text is outmoded in that the authors seem not to have kept up with the literature of recent decades – see for example their treatment of major crops such as apples and citrus. The circumscription of botanical families is decidedly old-fashioned, while readers will be astonished to learn that papaya, for example, is to be referred to Acanthaceae! Indeed there is a general sloppiness in the application of Latin names, e.g. those for gooseberry, blackberry and tomato are wrong, while it is a pity that 'botanical' variety names are used for what are better treated as cultivar groups.

In short, on the face of it an attractive volume with a high content of useful information, but even higher aspirations, so *Caveat emptor!*

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D. GLEDHILL: **The names of plants, ed. 4**. Cambridge University Press, Cambridge, United Kingdom, etc. 2008. viii + 426 pp. ISBN 978-0-521-86645-3 (hb), 978-0-521-68553-5 (pb). Price: GBP 24.99 (pb).

For most people words are just words, but unconsciously they don't realise that there is an aura around them. For by naming 'things', subconscious associations are created. Not for nothing do the Japanese use kanji (characters) when they could just as

well spell it out in hiragana and katakana, syllabic scripts. To them a kanji has a larger meaning than when it is written out in kana.

Animals and plants also have names, if the species is more or less widespread there may be many dialects and languages and so many different names. For international communication it is obviously advantageous to have only a single one. Systems has been devised to be guides in this. For plants (and fungi) this is the International Code of Botanical Nomenclature (ICBN 2006). The intent is a more stable nomenclature that decides on the correct name to be used, although it is a widespread belief among many that the nomenclaturists continually change names just for the fun of it and personal glory. However, as the Dutch botanist Pulle (1950) wrote: "To achieve nomenclatural stability scientific plant taxonomy must be murdered and buried". Altered taxonomic insights will cause new delimitations of genera and species, especially now with the vogue of molecular analyses, leading to nomenclatural consequences.

Basically, a scientific plant name may be derived from any source, historically going back to authors ranging from Theophrastus (died c. 287 BC), Linnaeus (1753) to present-day ones. So, etymology is of interest to curious people and numerous works ranging from local treatises in regional floras to more general treatments have been published. In his bibliography Gledhill lists a few. Remarkably, the most extensive of them all, Quattrocchi (1999), is not listed, possibly it was not available because of its exorbitant price (USD 945). The publisher claims that it contains "names of over 22,000 genera and thousands of species". Other unlisted sources are e.g. Backer (1936) with about 22,500 lemmas (including c. 2,700 biographies, which with his dry sense of humour make fascinating reading. Worth to learn Dutch for!), Genaust (2005, and two earlier editions); and the works preceding this by Boerner & Kunkel (1989), Wittstein (1852), and the very early one by De Théis (1810). Gledhill apparently does not know Dutch, French, or German, but he seems to know Greek, at least for words derived from that language he gives the base in Greek script. I fear that that will be too esoteric for most users, who will not be able to read it. By the way, *Abroma* Jacq. (ἄ-βρωμα) is not a Brazilian vernacular name. Backer (who obtained an honorary doctorate at the Utrecht University for his knowledge of classical Greek and Latin) says it means "plant not fit for food", in contrast to the related *Theobroma* L. (θεοσ-βρωμα; Sterculiaceae), "God's food": chocolate. This was already known to Théis, who also cites *Bubroma* Schreb. (βουϚ-βρωμα, Sterculiaceae, cow-food).

Unfortunately, international sources for names which can be accessed easily on the internet have not been tapped: the Index Nominum Genericorum (ING), so we here miss the generic names *Aa* Rchb.f., apparently an attempt to be the first name in any list (nor is there *Zyzyxia* Strother, hard to beat to be the last one), *Aalius* Rumph. ex Kuntze, a Latinisation of the Moluccan vernacular *aäl*, *Aaronsohnia* Warb. & Eig for Aaron Aaronsohn, *Abacopteris* Fée, a fern with leaflets with nerves that divide them into compartments, and so on. Likewise, the International Plant Names Index (IPNI) provides epithets of recent plants such as *aaseae*, *aageodontia*, *aamba*, *aambe*, before the *aaroni* found in Gledhill. *Abaca* is a species name, derived from the (Philippine) trade name *abacá* for Manila hemp, *Musa abaca* Perr. (1825); whether this is a synonym of *Musa textilis* Née (1801) is a taxonomic decision and not an explanation of the name.

The first introductory chapters recount the origin of names, their sometimes confusing uses, especially before the present binomial nomenclature was unintentionally devised

by Linnaeus (1753), notes on the development of practical (Linnaeus's sexual system, 1735) and more natural systems. Introductions to the ICBN (McNeill et al. 2006) and the ICNCP (Brickell et al. 2004) are given, but I fear that they are too much from the insider's view and so too daunting for the non-experts. A brief survey of Latin declensions is provided, but if one really is interested Stearn's survey in the masterpiece of his *Botanical Latin* (2004, and earlier prints) is the one to turn to. Personally I enjoy using Petit's (1979) lucid overview, but then it is in French.

Of course, as the author admits, there are unavoidable errors. One is that *Medinilla* Gaud. would have been named after Don José Medinilla y Pineda, governor of the Marianne Islands, Mauritius, in the Indian Ocean; actually these islands are in the West Pacific.

Now, from the above, one may think that I am too negative about this magnum opus. I am not. Backer's *Woordenboek* is an item difficult to obtain from second-hand booksellers, and the reprint (2000), nearly immediately sold out without the publishers intending another issue, is as difficult to get. Who can read Dutch, anyway? Since English is currently the primary language in plant lore, this is an extremely useful, valuable, and essential contribution and it is recommended to all who want to know what names "mean". I am going to buy this book.

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G. HEGI: **Illustrierte Flora von Mitteleuropa, Band VI, Teil 2A, 2. Auflage.** Weisdorn-Verlag Jena, 2008. 352 pp., 182 illus., 6 colour plates. ISBN 978-393-6055-26-9. Price: EUR 139.90.

The Illustrated Flora of Central Europe, known among European botanists as the Hegi, is a unique standard work. It has found its way to professional and non-professional botanists alike. According to the Hegi-website (www.hegi-flora.de) it is the most extensive standard work in the field, comprising everything worth knowing about the individual species. The flora covers a large geographical area, including Germany, Switzerland and Austria as well as Luxembourg, Lorraine, Elzas, the Italian Alps, former East Prussia, western part of Poland, Bohemia, Moravia, and Slovenia.

Gustav Hegi founded the work in 1906, and finished the complete flora in 1929 together with Helmut Gams and Albert Thellung in a total of 12 volumes. The first volume of the second edition was published in 1936, and the series was largely completed by 1979, lacking 'only' four volumes. The value of the second edition is in the more elaborate descriptions, including not only macro-morphology, but also distribution, ecology, fossil records, anatomy, embryology, pollen-morphology, chemical compounds and uses (including ornamental plants), and the overviews of important literature. For this reason, the work has importance far beyond its geographical region.

The present volume comprises the families (authors, or editors in German, mentioned between brackets) Cucurbitaceae (H. Scholz), Caprifoliaceae (F. Weberling), Adoxaceae (F. Weberling), Valerianaceae (F. Weberling) and Campanulaceae (D. Podlech) which were part of the first edition Band VI/1 (Hegi 1918). Revisions of four of the five families were finished between 1966 and 1979, but publication of volume VI/2, after the publication of the third part of the Rosaceae in 2003, the final one to complete the second edition, waited for the manuscripts of Dipsacaceae and Rubiaceae. These revisions, however, are still nowhere near in sight. Finally, as treatments of the Cucurbitaceae and Campanulaceae were already available, it was decided not to wait any longer and leave Dipsacaceae and Rubiaceae for volume VI/2B. This makes it even more difficult than it already is to find the treatments of the groups one is looking for. Therefore, the index to volumes and editions for all families and genera included just before the index of the present volume is very useful.

The Cucurbitaceae are out of taxonomic place in volume VI/2A as they are presently considered as part of the Rosids rather than the Asterids to which the other families belong. They are therefore included at the beginning of the volume, on A-numbered pages.

Let us take a closer look at the present volume. First of all, as mentioned above, the augmented descriptions are notable. Also, in the use of illustrations a number of things have changed. The black-and-white photographs of the first edition have been excluded, sometimes replaced by new ones (e.g. *Lonicera* spp., p. 72–85; *Adoxa moschatellina*, p. 95). Most of the excluded photographs were of poor quality indeed. However, some illustrations (e.g. fig. 128 in Hegi 1918, *Sambucus nigra* accompanied by a woman in early 20th century garments) could have been nice to retain for nostalgic reasons. For no obvious reason, only a selection of the line-drawings has been included in the present edition, which I think is a pity. Most of the colour plates have been retained except for the plate with Cucurbitaceae and part of Campanulaceae. They are printed with the ink tap much wider open: the colours are more vivid than in the first edition.

The many distribution maps, actualised by E.J. Jäger, are new and very informative. Also new in this edition are the numerous black-and-white photographs of all pollen types as well as a number of beautiful colour photographs at the end of the volume.

Apart from name changes for nomenclatural reasons, several taxonomic changes have been carried out. For instance, Lobeliaceae has been lumped with Campanulaceae, *Favratia* has been separated from *Campanula*, and *Physoplexis* from *Phyteuma*. On the species level, several have been added because of new records within the area. Also, several species described only after 1918 have been added (e.g. *Campanula bohémica* and *C. gelida*), while a number of subspecies have been raised to species level (e.g. *Campanula moravica* and *C. witasekiana*). Some other species were lumped to subspecies (e.g. *Campanula beckiana* as subspecies within *C. baumgartenii*). The keys have not changed unless new taxa had to be inserted.

The more recent developments in plant systematics, most importantly APG (1998, 2003), have not been implemented. However, they are discussed by J.W. Kadereit. The recent changes in family delimitation within the Dipsacales are briefly mentioned in a small chapter following the treatment of the Valerianaceae (p. 179), including a very useful overview of the most important literature. The family Adoxaceae, here kept in the narrow delimitation with a single species only, for instance, today comprises also the genera *Sambucus* and *Viburnum* which are here still kept in Caprifoliaceae. For the Campanulaceae, recent results of molecular work have been mentioned in the treatment, mainly with consequences on family, subfamily and tribal level. No doubt these changes will be carried through in the third edition.

To conclude, I would say that it has been a wise decision to go ahead with the publication of the families for which revisions were available. The first edition treatments have been thoroughly revised. The increase in information is incredible. The authors of the family treatments and specialists that have contributed to this volume are warmly complimented on the results. It is perhaps amazing that, with quite a few volumes of the third edition already published, the publisher did not decide to just abort the second edition and continue to publish only the third edition. On the other hand, 90 years after the first publication of these families, an update was much needed indeed. Undoubtedly, it will take another major revision to the third edition. Let us hope it won't take another 90 years!

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H. DUISTERMAAT