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## Book Reviews and Announcements

Desmond, Ray with the assistance of Christine Elwood. Dictionary of British and Irish botanists and horticulturists including plant collectors, flower painters and garden designers. London: Taylor & Francis and The Natural History Museum, 1994. xl, 825 pp. £120.00. ISBN 0-85066-843-3.

The appearance on the market of a revised biographical dictionary is an exciting event to many historians and librarians for whom these tools are indispensable. The appearance in 1994 of Ray Desmond's "revised and completely updated edition" of the Dictionary of British and Irish botanists and horticulturists including plant collectors, flower painters and garden designers certainly evokes such excitement. To contemplate the work's evolution from monthly installments in 1888 in the Journal of Botany to the present volume is intriguing. The original installments in the Journal of Botany contained 1,619 entries. The enthusiastic reception to these installments encouraged James Britten and George S. Boulger to produce the 1893 volume, A biographical index of British and Irish botanists, that advanced the number of entries to 1,825. At Britten's urging, A. B. Rendle took up the task of producing a new edition, which he did in 1931; the number of entries increased to 2,700. It wasn't until Ray Desmond produced the Dictionary of British and Irish botanists and horticulturists including plant collectors and botanical artists in 1977 that dependence on the earlier volumes began to subside. In this revision of the 1931 edition, the number of entries grew to over 8,000 because of the inclusion of nurserymen, gardeners and horticultural writers as well as botanists.

We are indebted to R. Desmond and C. Elwood for taking on the Herculean task of revising and updating the 1977 edition. The 1994 publication contains over 13,000 entries and includes flower painters as well as botanical artists and amateur as well as professional garden designers. This augmentation in entries resulted in a corresponding impressive expansion of bibliographies of books and periodicals consulted. No other scientific specialty, to my knowledge, can claim such a comprehensive and invaluable reference source.

In addition to praising the scope of the work, acknowledgment must be made of its other assets. First, the enhancement of the page format: the technique of highlighting the subject entries in bold type and indenting the information that follows is both a functional and aesthetic improvement over the 1977 edition. Second, separating the subject index into three categories—professions, plants, and countries—is a masterful change. This work fulfills all the requirements of an excellent reference tool. It is

superfluous to add that no library should be without this dictionary.

Anita L. Karg Hunt Institute

Henrey, Blanche. No ordinary gardener: Thomas Knowlton, 1691–1781. Edited by A. O. Chater. London: British Museum (Natural History), 1986. 324 pp., incl. 24 plates, illus., maps, plans, portraits. Price unknown. ISBN 0-565-00976-1 (cloth).

One of the projects on which Blanche Henrey focused after the publication of her book British botanical and horticultural literature before 1800 was a biographical study, based primarily on original source material, of the eighteenth-century professional gardener Thomas Knowlton. Although Henrey was unable to complete this work before her death, A. O. Chater took on the work of revising her manuscript for publication. Arranged in two chapters—the one ending and the other beginning at the point at which Knowlton went to work as a gardener for the Earl of Burlington at Londesborough—this study consists largely of excerpts from Knowlton's extensive correspondence, the bulk of it post-1726, to which considerable annotation has been added to provide narrative continuity and background. The result is a fascinating view of a man who was as conversant with new developments in eighteenth-century plant science in England as with his immediate gardening concerns.

As a private professional gardener with wide-ranging interests including ornithology, fossils and antiquarian subjects, Knowlton conversed and corresponded with other gardeners, landowners, botanists, nurserymen and antiquarians. A number of his letters were read before the Fellows of the Royal Society, and his many friends included Sir Hans Sloane, Mark Catesby and Peter Collinson. Although little is known of his education and early life, it is obvious from the material collected in this book that he loved books and writing letters. Henrey has retained Knowlton's spelling, abbreviations and punctuation so that the flavor of his letter writing is preserved in transcription. Declining to use Linnaeus' binomial nomenclature, Knowlton instead referred to plants by names assigned by earlier authors, by common names, or by short descriptions. Henrey omitted references to plants which were mentioned only generically, and so the text and index reflect only those references she felt were identifiable enough to be meaningful.

In the early part of his career, Knowlton held several gardening positions, including one for James Sherard at Eltham, Kent. During this period of his life, Knowlton became an expert at growing exotic flowers and fruits. When in 1726 he was hired to work at Londesborough, he was faced with a new challenge: large-scale landscape work in a garden and park which had been redesigned as plantations of trees and shrubs. When he first went to work at Londesborough there were no greenhouses, stoves or other protective buildings there, but when a stove was introduced at the property a few years later, Knowlton gradually was able to expand the Earl's holdings to include such exotics as coffee, guavas, papaws, plantains and the popular pineapples. Knowlton's horticultural expertise was widely recognized and he participated in numerous seed and plant exchanges; records indicate that he cultivated some exotic species prior to the dates generally recognized for their introduction. Other landowners consulted him on projects for their own properties, and Knowlton sometimes took on additional work at other sites, as exemplified in the project documentation contained in Appendix A. Beyond garden work, he took an avid interest in the botanical publications of his day and built up a considerable horticultural and botanical library. A subscriber to a number of botanical publications (as shown in Appendix C), he also motivated others to subscribe in a number of cases and received free copies from authors such as Catesby and George Edwards in exchange. He visited the gardens at Kew and Cambridge and wrote about them in his correspondence as well. In general he kept his finger on the pulse of what was happening in his areas of interest, and as a gardener in a relatively rural area he remained remarkably well informed of current affairs. In this regard his correspondence supplies perhaps an atypical perspective on some well-documented intellectual currents of the time.

A half dozen appendices provide additional information, ranging from extensive documentation of Knowlton's work for Sir Marmaduke Constable through information on Knowlton's bibliographic interests, property and will. One of the most useful of the appendices includes a list of plants, arranged by family, that figured in Knowlton's work and correspondence. A general index and a plant index enhance the accessibility of the text. My one regret is that we are not provided with a photograph of one of Knowlton's letters, which would have allowed us to see an example of what Henrey has transcribed and excerpted. Regardless, Henrey has given us a wonderful study of a man and his relations with his work and with the larger world that provides an enlightening view into some aspects of eighteenth-century horticulture, gardening and botany.

Charlotte Tancin Hunt Institute Isely, Duane. One hundred and one botanists. Ames, Iowa: Iowa State University Press, [1994]. xiii, 351 pp., ports. \$32.95. ISBN 0-8138-2498-2.

Duane Isely is distinguished professor emeritus at Iowa State University where he has taught in the Department of Botany since 1944. Dr. Isely has published over 100 journal articles and at least six volumes on the subject of plant science. This volume, his first anthology of biographical essays, is his answer to requests from students who enjoyed his biographical monographs and encouraged him to combine the essays into one publication. The 101 essays are short, witty and sometimes irreverent sketches of plant scientists. Robert Hooke, 1635-1702, is referred to as "a member of a high-toned snob group that subsequently became the Royal Society of London." The sketches flow smoothly in chronological order from the account of Aristotle, 384 B.C.-322 B.C., through the story of Winona Hazel Welch, 1896-1991, and the history of botany unfolds through Isely's narration of the scientific contributions of his subjects. I found outright errors in only one of the essays-that of Adanson. The author indicated that Adanson was not married. He was, however, married for 15 years and had a daughter. Also, Isely's opinion that Adanson "was a loner and possibly a cantankerous one" was not shared by all of Adanson's correspondents. The volume is well supplied with finding aids such as incidental, subject and chronological indexes and a table of contents. Every essay is followed by a bibliography and all but three of the sketches contain a photograph of the subject. This book offers instruction as well as pleasure and students of all ages would profit from reading it. Hopefully Isely's amusing style will capture the interest of the young and those new to botany and whet their curiosity for further study of natural history. All libraries, natural-science as well as general ones, will enhance their collections by the inclusion of this volume.

Anita L. Karg Hunt Institute

Johri, B. M., ed. Botany in India: History and progress. Vol. 1. Lebanon, NH: Science Publishers, Inc., 1994. 521 pp. Price unknown. ISBN (Set 1) 1-886106-03-7, (Vol. 1) 1-886106-04-5, (Vol. 2.) 1-886106-05-3.

I. H. Burkill's and Ray Desmond's classic titles, Chapters on the history of botany in India and The European discovery of the Indian flora, respectively, come to mind when we think of the pre-20th-century botanical history of India. Now B. M. Johri, botanist at the University of Delhi, has edited a "comprehensive review of significant investigations over a period of 100 years." Each of the 60 authors, specialists in their fields, introduces his or her

topic, citing its relevance to Indian botany and including pertinent references up to about 1991. Volume 1 contains 24 chapters, and volume 2 will bring the total to 39. This review considers volume 1 only.

Chapter 1, "Plant sciences in India: Yesterday, today and tomorrow," co-authored by Johri, includes an overview of the contributions of a number of organizations and institutions that have promoted botanical research. The remaining chapters in this volume include "Plant exploration in India and floras"; "Plants for medicine"; "Plant mollicutes [misspelled mollecutes in the Contents] and bacteria-like organisms"; "Plant viruses"; "Bacteria: General studies and genetics"; "Plant diseases caused by bacteria"; "Cyanobacteria (Cyanophyta, Blue-green algae)"; "Chlorophyta and Charophyta"; "Phaeophyta"; "Rhodophyta"; "Cytology of algae"; "Fungi: General aspects, morphology, systematics, and reproductive biology"; "Plant diseases caused by fungi"; "Seed pathology"; "Fungal physiology and biochemistry"; "Cytology of fungi"; "Mycorrhizae"; "Plant galls"; "Lichens"; "Bryophyta: Morphology, systematics, reproductive biology"; "Bryophyta: Morphogenetic studies"; "Pteridophyta: Morphology, anatomy, reproductive biology"; and "Pteridophyta: Morphogenetic studies."

Titles of citations were omitted in order to save space; therefore letters have been added after the publication years to distinguish multiple entries by the same author(s). The only illustrations in the work are the portraits of 22 botanists included in a dedication preceding the preface. Johri laments lack of time and funding to have provided more detail and illustrations in the chapters. Nevertheless, the book, satisfactorily printed in New Delhi, serves as a valuable contribution to the history of botany in India.

James J. White Hunt Institute

Kottegoda, S. R. Flowers of Sri Lanka. Colombo: The Royal Asiatic Society of Sri Lanka, 1994. 248 pp., 411 color illus. \$60.00. ISBN 955-9086-01-4.

Flowers of Sri Lanka contains reproductions and short descriptions of over 400 flowering plants from Sri Lanka, arranged alphabetically by taxon name. The collection of photographs made by the late pharmacologist Dr. Kottegoda is an admirable one for an amateur photographer, and I wish I could have done as well, but there are far too many photographs that seem generally weak, fuzzy or in need of cropping. Almost every botanist has a collection of slides of flowers, but few are superb photographers, and even fewer—a notable exception being Sherwin Carlquist with his Hasselblad camera—can eliminate "visual noise" from their compositions.

The descriptions of the flowers, sometimes as short as

four to six lines, comment on such features as endemics, interesting economic or cultural uses, and derivation of Latin names. There are indices of English, Sinhala and Tamil names. I don't see much point in the Index of Colour of Flowers (especially determining flowers to be crimson, mauve, pink, purple, red or violet) when every photo already is in color.

None of the Latin names are followed by author names, a standard convention in citing scientific names. Misspellings (such as "Apocyanaceae," "Decmber," "Bethle-ham," "paianting" for painting, "Portugese," "Grater" for Greater, "Camillia," "direvation" for derivation, "Callistimon," "Conncticut," etc.) are scattered throughout. Some entries begin with non-sentences, but careful proofreading could have eliminated additional ones within the text. Rules for punctuation are violated frequently. Sometimes commas, colons or semicolons even begin the lines, such as in entry 168 and three times in the Bibliography. A Bauhinia caption refers to the resemblance of "I. pes caprae," which a knowledgeable reader might recognize as Ipomoea pes-caprae. The author states that "allium is the scientific name for garlic," but should have written that this is the generic name for garlic and onion. He surely did not mean to state that Plumbago is cultivated in medicinal herbaria! The family of the genus Nyctanthes is listed as Nyctanthaceae, but is omitted from the otherwise useful Index of Families of Plants. Entries for species of Nymphaea are listed in Nymphaceae and Nymphaeaceae. Could the "Elbert L. L. Jr." in the bibliography refer to Elbert L. Little, Jr.?

Promotional material states that this book is "the definitive guide to the flowers of the island" and one which "contains 411 full colour plates of all flowers found in the country with detailed descriptions of each flower providing the essential scientific, geographical, and historical information." From a part of the world from which we unfortunately have come to expect poor standards in printing, this book gives a good first impression, but the definitive, although still incomplete, guide remains A revised handbook to the flora of Ceylon, general editor M. D. Dassanayake, published from 1980 to 1995.

James J. White Hunt Institute

Lenz, Lee W. Marcus E. Jones: Western geologist, mining engineer & botanist. Claremont: Rancho Santa Ana Botanic Garden, 1986. xi, 486 pp., incl. 9 pp. of plates (illus., ports.). \$28.00 (cloth). ISBN 0-9605808-2-4.

Marcus Jones was one of those interesting characters for which the American West was known in the late nineteenth and early twentieth centuries, and his interests in geology, mining and botany led him through a career as colorful as it was productive. He was apparently a person who "saved everything," and fortunately much of what he saved has survived, allowing Lee Lenz to draw extensively on previously unavailable primary source material in order to write an in-depth study of Jones' life and work. Lenz describes Jones as "brilliant, controversial and difficult," and the story of Jones' life bears this out, as he appears to have been intensely active and strongly opinionated on a number of topics. His lifelong interest in botany and plant collecting was accompanied and diverted by numerous other interests, including photography, education, geology, mining and ore production and their effects on economic development, theology and controversies relating to Mormonism and Fundamentalism.

His career was as varied as his interests. He worked as a teacher, librarian and museum curator at the University of Deseret, participant in geological expeditions to explore mining and railroad possibilities, field agent for the Department of Agriculture's Division of Botany under Frederick Coville, preacher at a Congregational Church, expert witness in air pollution cases relating to smelter smoke, and always as botanical collector and a prolific author on botanical and other subjects. Even before his early years as a teacher of chemistry, botany and geology in Salt Lake City, the 1870s found him collecting and selling groups of Utah specimens, and at one point this was his sole source of income. He excelled in his knowledge of the western flora, and made numerous plant collecting trips throughout his life.

His collecting territory eventually included Baja California and western mainland Mexico in addition to the American West. Over half his life was spent in Utah, but he ended up in Claremont for his last 11 years. Pomona College got him and his collections, and the year that he moved there he also published his monograph on Astragalas following years of preparation. At Pomona he made new contacts, including Philip Munz, and embarked on further botanical collecting trips. His legacy as a botanist centered on his work as a field collector "who studied more western plants in their native habitats than any botanist of his time," and who paid particular attention to environmental factors and the natural variation of plant populations; he was moving toward experimental taxonomy in his last years. Lenz ends the biographical portion of the book with a few pages on Edward L. Greene whose life held some parallels to Jones' but with whom Jones had a contentious relationship.

Immediately following the main text is a chronologically arranged listing of over 200 of Jones' writings, many of which were contributions to newspapers and newsletters as well as journals, but also including a number of works which he published himself, and three unpublished manuscripts. The appendices which follow occupy fully

half the book and form a compendium of information of particular interest to botanists working with the Western flora, being extensive notes on Jones' collecting and description. A transcription of Jones' diary and field notes from 1894 is provided by Stanley Welsh. A gazetteer details 952 of Jones' collecting sites from 1876 to 1923, providing dated references to specific trips as well as geographic coordinates and references to named geographic sites in many cases. Much of this information came from his own field maps, mounted on cheesecloth and still readable despite deterioration. An impressive 62-page list of new taxa described by Jones gives names, description citations and herbarium data and rounds out this intensive study of Jones' role in Western botany. With this substantial compilation of documentary material Lenz has produced an important contribution to the history of botany in America.

Charlotte Tancin Hunt Institute

Mathew, Manjil V. The history of the Royal Botanic Garden Library, Edinburgh. Edinburgh: HMSO, 1987. Color frontispiece, 133 pp., illus., 8 pp. of color plates. £15.00 (paper). ISBN 0-11-493342-1.

In this beautifully produced book Manjil V. Mathew traces the history of the Royal Botanic Garden Library in Edinburgh as a confluence of streams flowing from a number of sources to produce the Library in its present form. Well illustrated with photographs of published and manuscript material from the collections as well as with selected bookplates of significant persons in the history of the Library, Mathew's study serves to show how the Library was built up over time and through accretions from many sources, including the 17th-century Physick Garden, the University of Edinburgh and the Botanical Society of Edinburgh.

The original Physick Garden, founded in 1670 by Andrew Balfour and Robert Sibbald, was developed to provide a source of medicinal plants to apothecaries in the area. While the Garden received periodic grants from the Town Council and other sources, the Keeper assumed the primary financial responsibility for the development and maintenance of the Garden. This meant that the Keeper owned the contents of the Garden and its effects, including books, since he had essentially paid for it himself. Thus retirement or death of a Keeper inevitably resulted in a diminution of Garden resources, as items, particularly books, were taken away either by the Keeper or his heirs.

Throughout the history of the Garden it was recognized that those working with live plants and herbarium specimens would need to be able to consult botanical works on site. Although the earliest record of books purchased for the Garden is in 1766, long before that the personal libraries of the various Regium Keepers were available to those working at the Garden. Some books from these various personal collections have remained at the Garden, forming "a perhaps fragile, but continuous chain back to the days of its foundation in 1670." The Garden also provided a site for a departmental library of botany for the University, which was finally separated out from the Garden library proper in the 1960s. The Botanical Society of Edinburgh gave some 1,000 volumes to the Garden in 1872, following the gift of its herbarium in 1863. Responsibility for the Garden remained in private hands until as late as 1889, at which time it was transferred to the Government. One of the appendices reproduces a letter outlining objections to the proposed transfer of the Garden to the University the previous year.

In addition to historical lists of the Regius Keepers and Library Personnel and a map showing the four locations the Garden has occupied since 1670, the book contains 10 appendices of supplementary documentation which support and highlight various aspects of the historical picture Mathew has produced. As D. M. Henderson points out in his introduction, in the absence of a coherent, cumulative documentary record of the Library's history, Mathew "has pieced together the facts from many scattered sources" to a very satisfactory effect. We are indebted to him for this contribution to the history of botanical libraries.

Charlotte Tancin Hunt Institute

Nelson, E. Charles and Wendy F. Walsh. Trees of Ireland native and naturalized. Dublin: The Lilliput Press, 1993. vii, 247 pp., incl. 30 color plates. ISBN 1-874675-23-6 (limited ed.); £35.00, 1-874675-24-4 (cloth); £17.99, 1-874675-25-2 (paper).

This pleasurable volume (I reviewed the paperbound edition) is a meditation on the trees of Ireland, focusing on a selection of 34 species of trees known to be native or naturalized there. In his introduction, Nelson discusses the characteristics of "native," "introduced" and "naturalized" plants, thus clarifying these terms for the broad audience to which this book surely would appeal. Beyond being a meditation the book is also a celebration, packed with information of a surprisingly varied sort. Following several brief essays on literature, history, "laws, letters, lore," propagation, conservation and recording, and exotic trees in Ireland, the core of the text consists of 30 sections, each devoted to a specific tree (except for the

sections on Sorbus, or Whitebeams, which contain several each). In each section are given English, Irish and botanical names, various vernacular names, botanical descriptions, and information on distribution. In addition, each section contains informational subsections on such topics as historical background, propagation, varieties and cultivars, the wood of the tree, uses, folklore, related species, ecology, and occasionally on individual trees which have been documented. Highlighting each section is a pleasingly rendered illustration by Wendy Walsh in which a small whole-tree illustration in pencil is presented in contrast to a watercolor showing large details of the tree's foliage, flowers and fruit.

Complementing this rich collection of information are two appendices; one appendix is a short list of "Tree cultivars of Irish origin or introduced through Irish nurseries" with nurseries noted when known, and the other lists "Apples raised in Ireland or recorded as being widely cultivated in Ireland." This latter more extensive list also gives locations and dates when known. A substantial bibliography and indexes of botanical, English and Irish plant names complete the book. This is a very successful volume that will without doubt enable the reader to, as Nelson remarks in his introduction, "rediscover the joy... gained from the wild woods and wild trees."

Charlotte Tancin Hunt Institute

Pim, Sheila. The wood and the trees. Augustine Henry: A biography. Second edition enlarged and revised with additional illustrations. (Series five, General publishings, no. 5). Kilkenny: Boethius Press, 1984. [iv], 252 pp., 48 pp. of plates. £20.95. ISBN 0-86314-097-1 (cloth).

Henry, Augustine. Notes on economic botany of China (facsimile of 1893 publication). Introduced by E. Charles Nelson. Kilkenny: Boethius Press, 1984. xv, 68, [6] pp. £7.50. ISBN 0-86314-101-3 (paper).

Although published over 10 years ago, these publications are still worthy of comment because of the insights they provide into an important figure in the history of economic botany, Augustine Henry. The first edition of Sheila Pim's biography of Henry, The wood and the trees, was published in 1966, and almost 20 years later Boethius Press produced this new and improved edition, revised by Pim, with various enhancements. The Chinese names have been updated, there are more illustrations, the original appendices have been revised and, in the case of E. C. Nelson's "The garden history of Augustine Henry's plants," greatly expanded. In addition there is a new appendix on "Dun Emer, an unrecorded chapter in the life of Augustine Henry." But the main reason for the new

edition, as explained in Pim's preface, is that after the first edition was published some additional diaries of Henry's turned up at Glasnevin, providing new information on his early collecting years. Altogether, the second edition provides a much fuller view of Henry's life and work. Pim gives us not only an intensive record of Henry's work and accomplishments, but also a good look at his personality and motivations. We see the whole man, whose simple character, keen intelligence and strong drive led to major accomplishments, despite an ongoing internal conflict pulling him between his chosen specialty and his wider interests.

In the 1880s Henry was working as a customs official in China when he began to collect plants partly as an extension of his duties, in the course of which he compiled lists of drug plants corresponding to drugs which were passing through customs. His interest in botany grew and became a refuge for him in a situation which sometimes seemed to be exile, particularly after the death of his first wife. He corresponded with botanists at Kew and gained the support and guidance that enabled him to expand his efforts. With Chinese assistants he collected in the mountains and sent large batches of specimens to Kew and later to several other institutions as well. In addition to collection and some identification, Henry also wrote on the economic uses of the Chinese flora. His work on plant distribution and exploration of the flora of the wilds of western China inspired and also smoothed the way a bit for later collectors in China such as E. H. Wilson.

The second part of the book deals with Henry's life after he left China. At first despondent and lacking direction, he spent a year in London working with his specimens at Kew and then he traveled to Belfast to reaffirm ties with his native Ireland and his many friends there. He developed the idea of pursuing forestry for the betterment of Ireland, and to further this end he attended forestry school in Nancy, where he came to value forests for their intrinsic as well as their ecological value. Henry believed that it was a mistake for English forestry to model itself after the discipline as pursued in eastern France, northern Germany and Denmark; reasoning that the British Isles should grow trees that suit the land and climate, he turned to the forests of western North America for possibilities. At this time he also collaborated with H. J. Elwes on The trees of Great Britain & Ireland.

Aside from his botanical interests, his longtime friendship with Evelyn Gleeson gave him insights into the "new women," the craft movement at Dun Emer, and various other movements promoting the Irish humanities, all of which are wonderfully recounted by Pim. Henry remarried and found in his second wife a kindred spirit with whom to pursue his many interests. Although many of his friends were involved on one side or the other of the political conflicts in Ireland, Henry deplored violence and generally stayed clear of involvement in political causes. Henry's major contributions were in opening up the wild flora of western China to subsequent collectors and in establishing a foundation for forestry in the British Isles. Beyond these he had an inspiring effect on many of those with whom he came into contact, both in non-botanical spheres and botanical ones. As Pim wrote, Henry was a man "for whom the world was full of a number of things, and who got a great deal done in spite of it."

Around the same time that they published the second edition of Pim's biography of Henry, Boethius Press reprinted in facsimile Henry's 1893 booklet, *Notes on economic botany of China*. This, Henry's second major publication, was first published as an article in the Shanghai journal *The messenger* and then printed separately in an edition of 100 copies, of which only one is known to be extant. That copy is the one which Henry sent to David Fairchild at the U.S. Department of Agriculture, and which Fairchild reprinted as a photolithographed facsimile in 1903 without Henry's knowledge (Henry good-naturedly referred to it as having been "pirated"). Boethius Press has reproduced in facsimile Henry's own copy of the U.S.D.A. reprint, and therefore has allowed Henry's early work to reach a new audience.

Notes reflects Henry's feeling that despite all his work he had merely touched the tip of the iceberg as far as the flora of China was concerned, and that one man could hope to do no more. In this publication he promotes collecting in hopes of attracting others to contribute their own efforts to the study of the Chinese flora and its economic uses. He begins his booklet with notes on drugs from known sources, and then reproduces part of a letter from Kew conveying support for his work and requesting information on "all applications of wood." Henry writes a bit on woods and then moves on to write brief notes on various textile plants, beans and peas, trees and mushrooms. The most extensive chapter of the work focuses on the flora of western China, which "supplies the great bulk of the drugs used by the Chinese, and is, moreover, rich in peculiar vegetable products, concerning which the intelligent traveller, the one who observes and brings back specimens, can supply us with much new information."

The Boethius Press facsimile is augmented by E. C. Nelson's "Index to the Latin Names of Plants in *Notes*...," a necessary addition since the plant entries in the text begin with Chinese rather than Latin names. Henry provided Latin names, when known, in the descriptive text for each plant, along with references to other plants and sometimes to reference sources and information on what is known about the plant and its use in China. Given that the U.S.D.A. copy of this publication is the only one known to have survived, we are fortunate to have this facsimile available.

Charlotte Tancin Hunt Institute Southon, I. W. and J. Buckingham, comps. and eds. Dictionary of alkaloids. New York: Routledge, Chapman & Hall, 1989. 2 vols., index. \$1295.00/set. ISBN 0-412-24910-3.

Originally defined as any of the numerous, usually colorless, bitter and complex organic bases containing nitrogen of plant origin, alkaloids are today more comprehensively defined to include most nitrogen-containing secondary products of plant, microbial, fungal or even animal origin. They include many extremely important chemotherapeutic agents (chemicals used in the control or treatment of disease), such as analgesics, antimalarial and anticancer agents.

The principal goal of this vast work was to catalogue and provide data for approximately 10,000 alkaloids (covering information through 1987) of known structure as well as many others that although of unknown structure are well characterized. The entries are arranged alphabetically by chemical name. They include stereo structure, formula, physical properties, derivatives, physiological activities, toxicological data and literature references. There are numerous indexes in the second volume arranged by synonym, molecular formula, Chemical Abstracts Service registry number, type of compound and, most consequential as far as the reviewer is concerned, taxonomic species. This sweeping index is arranged alphabetically by genus and includes entries at the generic as well as the specific level. My only difficulty with this vast compilation is that the authors have chosen not to include the authorities when citing the scientific names. The authority is part of the scientific name and should always be included. Additionally, because of the wide range of organisms included in this index (plants, animals, fungi and microbes), the inclusion of the family name would be useful. Aside from that, this comprehensive work is excellent and, although very expensive, will prove to be a valuable tool to chemists and biologists alike.

T. D. Jacobsen Hunt Institute West, Keith. How to draw and paint wild flowers. London: The Herbert Press Ltd. in association with The Royal Botanic Gardens, Kew, 1993. 128 pp., 18 figs., 116 illus. (mostly col.). £16.95. ISBN 1-871569-56-7.

Keith West is a skilled botanical artist and author of How to draw plants: The techniques of botanical illustration (1983) and Painting plant portraits: A step-by-step guide (1991), reviewed in Huntia 5(2) and 9(1) respectively. The former is more specialized, while the latter is oriented toward the amateur artist. How to draw and paint wild flowers, as is his second book, is for the hobby painter, but, in the words of the author, is "a touch more solid going." In it he creates 20 wildflower portraits step-by-step, using pencil, ink, watercolor and gouache. Following his brief introduction, general notes and a glossary of botanical terms are three chapters on basic art equipment, drawing plant structures and media. The fourth chapter is divided into sections, averaging four to five pages each, on drawing and painting Anemone nemorosa, Ranunculus ficaria, Fritillaria meleagris, Primula vulgaris, Arum maculatum, Rosa canina, Epilobium angustifolium, Centaurea nigra, Mimulus guttatus, Lonicera periclymenum, Knautia arvensis, Humulus lupulus, Rubus sp., Rosa canina, Aesculus hippocastanum, Polypodium vulgare, a group of winter buds (Aesculus hippocastanum, Fraxinus excelsior, Querus petraea, Corylus avellana and Acer pseudoplatanus) and Hedera helix. In thoughtful discussions about each of these plants, West describes how he collects and draws his specimens. Large illustrations show how he progresses from sketch to completed painting. Most of the reproductions (except for those depicting artworks in pencil and pen) are in color. It is unfortunate, however, that the apparently unfocused photography, poor lighting and unpleasant background tones in the reproductions do not do justice to West's artistic talent.

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