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Editor	Robert W. Kiger
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Editorial correspondence, manuscripts and books for review should be addressed to Dr. Kiger at the Institute.

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Reviews

Carr, D. J., ed. *Sydney Parkinson, artist of Cook's Endeavour voyage*. London and Canberra: British Museum (Natural History) in association with Croom Helm Limited, 1983. 300 pp., 253 illus. (125 in color). £29.95. ISBN 0-7099-0794-X.

This collaborative work deals primarily with the watercolors and drawings made by Sydney Parkinson for Joseph Banks during the three-year voyage of the *Endeavour*, which departed England in 1768. These illustrations constitute one of that expedition's most important scientific legacies, besides being of considerable artistic and historical interest. The young Parkinson was at his best in the field of botany, producing under adverse conditions works of keen observation and draftsmanship. Chapters by Wilfrid Blunt are devoted to the voyage and to the artist himself. Subsequent chapters by Phyllis Edwards, F. R. Fosberg, Marie-Hélène Sacht, E. J. Godley, R. J. Henderson and William T. Stearn discuss the plant species that were depicted by Parkinson. Also, Alwyne Wheeler and Denis J. Carr have contributed chapters on the animals, G. Adrian Horridge on Malay boats, and J. R. H. Spencer on coastal profiles and landscapes.

I have heard the book criticized for its lack of new information about Parkinson (whose short life of 26 years perhaps offers little more to be learned), but it does reveal and explicate the wealth of his productions. Many of these drawings were the bases for scientific descriptions of plants and animals, and fortunately for history and art as well as for science they all have been preserved in the British Museum (Natural History) and the British Library.

A comprehensive and very useful bibliography is also included. The many good color illustrations are welcome, but indications of scale in the photographs would have revealed that, for instance, the Parkinson portrait reproduced as the full-page frontispiece is a miniature compared to the kangaroo drawing shown much reduced on page 37. The book offers much scholarly and artistic value, and is a real bargain in the U.S. at today's exchange rate.

James J. White
Hunt Institute

Castiglioni, Luigi. *Viaggio; travels in the United States of North America 1785-87*. Translated and edited by Antonio Pace with natural history commentary and Luigi Castiglioni's Botanical observations translated by Antonio Pace and edited by Joseph & Nesta Ewan. Syracuse, NY: Syr-

acuse University Press, 1983. xli, 487 pp., illus. \$39.00. ISBN 0-8156-2264-3.

Italian aristocrat, traveller and natural scientist, Luigi Castiglioni left Deal, England for Boston on 13 April 1785. The American Revolution had aroused the interest of many Europeans, and Castiglioni was one of those who "was moved by curiosity to see the political birth of a Republic composed of diverse nationalities, scattered over vast provinces far removed from one another, and varied in climate and products." *Viaggio* is a pleasant account of Castiglioni's travels through 14 states and Canada, in which he described the people, their dress, their homes, in fact every aspect of life, including the animals and plants that he encountered. His acquaintances during this pilgrimage ranged from the prestigious, such as George Washington and the governors of the various states, to the very poor. Because of his love of botany, he made a special effort to meet the botanists of the areas he visited, spending time with the Bartrams, Manasseh Cutler, James Greenway and Humphry Marshall. Fascinated also with the Indians, Castiglioni prepared a glossary comparing certain words of the Choctaw with those of the Cherokee. His encounter with slavery evoked the remark that "Surely it is a matter of surprise and pity for a European to read about the sale of slaves here in the newspapers, and all the more so if those notices are compared with those put out for the sale of horses, from which they differ not a bit." For the most part, his impressions of the New World were favorable, and he was particularly enthusiastic about the form of government in the United States and the popular participation in it. On 16 May 1787, Castiglioni boarded a Spanish ship bound for Europe, and his American journey came to an end.

First published in Milan in 1790, *Viaggio* attracted favorable contemporary comments. However these emphasized its natural-history contents and ignored many of Castiglioni's enthusiastic descriptions of life in the United States, apparently in order to avoid controversy during that period of unrest and revolution in Europe. In 1793 part of the *Viaggio* was translated into German, but by 1800 the book seems to have been forgotten except by a few natural scientists and historians. We are fortunate that Antonio Pace has broken "the barrier of language" to give us this fluent translation of Castiglioni's journal and botanical observations. A "plant catalogue" intended for ready reference, the observations occupy 117 pages of the present volume. According to the Ewans, they are arranged "not by a theoretical classification under either the popular Linnaean or the novel scheme of Jussieu, but

by pragmatism alphabetical arrangement, as if the work were to be consulted by the entrepreneur in Milan, alert to the expanding economy of his country. As a good commentator, Castiglioni offers methods of growing, harvesting, or utilizing the plant product, first as reported in the historic writings of Charlevoix, Kalm, John Bartram, or Carver, among others, then supplemented by his own considered observations. Included in these observations were his experiences in his Italian garden, resting surely on his having taken back seeds or plantings in the hope of introducing farm or garden subjects." Two other invaluable sections of the work are the scholarly introduction by Pace, filled with historical and biographical information, and Castiglioni's copious notes, which enrich the account of his travels.

Before leaving for America, Castiglioni wrote in his journal, "Happy me, if I can observe things that deserve to pass down to the memory of posterity, and if I shall not have thrown away my labor and time." His time and labor were not thrown away. Historians, natural scientists, and particularly readers interested in early explorations and settlements in North America will find Castiglioni's descriptions and interpretations enjoyable and instructive.

Anita L. Karg
Hunt Institute

Cunningham, Isabel Shipley. *Frank N. Meyer; plant hunter in Asia*. Ames, Iowa: The Iowa State University Press, [1984]. xvii, 317 pp., illus. \$29.95. ISBN 0-8138-1148-1.

"Now, as people are becoming concerned about the world's food supply and the loss of genetic diversity of crops, the time to tell Meyer's story has come." Working mainly from unpublished letters and reports, Cunningham tells the story of Frank Nicholas Meyer and his sacrifices and contributions in behalf of his adopted country—the United States. She has expertly combined Meyer's words with her own excellent prose and produced a vivid, sensitive picture of the man in a well-researched and skillfully organized volume.

In 1905, the Bureau of Plant Industry of the United States Department of Agriculture was looking for someone to explore China. As head of the Bureau, David Fairchild led the search for someone with "an insatiable thirst for travel and the ability to walk long distances over trails and across country, with an extensive acquaintance with wild plants, a good knowledge of horticulture, and an absorbing and sustaining interest in the work of plant introduction." Frank Meyer was born in Amsterdam in 1875 and started working with plants at the age of 14 when he was hired by the Amsterdam Botanical Garden.

After three years, he became supervisor of the experimental garden of Hugo de Vries. It was one of the latter's acquaintances, Erwin F. Smith, who found work for Meyer in the U.S.D.A. greenhouses when he came to the United States in 1901. Almost a year later, in September 1902, Meyer decided he wanted to see more of America. He worked briefly in various nurseries and botanical gardens as he journeyed around the United States, Mexico and Cuba; eventually, short of funds, he stayed to work at the Missouri Botanical Garden. It was while there that he received a telegram from Adrian J. Pieters asking him if he would explore China for the Department of Agriculture.

Meyer went on four expeditions for the U.S.D.A. From 1905 until 1918 he traveled through China, Manchuria, Mongolia, Turkestan, Siberia, Russia and Japan. On 2 June 1918, in the second year of the fourth expedition, he disappeared from a steamer en route from Hankow to Shanghai. His death remains a mystery, but his goal, "I will do all I can to enrich the United States of America with things good for her people," was fulfilled. He had introduced over 2,000 species and varieties of useful and ornamental plants.

Cunningham presents an absorbing biography replete with descriptions of people, places and incidents, one which leaves the reader with an appreciation of the plant explorer's work. Many photographs complement and enhance the narrative. There are four maps in the volume (one for each expedition) which aid in comprehending the vast territory covered by Meyer. The biography is followed by three appendices: "Meyer's plant introductions," "Meyer germplasm available today" and "Recipients of the Meyer Medal." Twelve pages of footnotes, a bibliography and two indices, general and taxonomic, complete the volume. It should be a part of every botanical and agricultural library, and any library would be enriched by its presence.

Anita L. Karg
Hunt Institute

Deiss, William A. *Museum archives: An introduction*. Chicago: The Society of American Archivists, 1984. 37 pp. \$6.00, \$4.00 to SAA members (paper). ISBN 0-931828-59-7.

During the past decade The Society of American Archivists has published two series of "basic manuals" to assist people responsible for operating archives, manuscript repositories and special collections. Recently the Society has added three specialty manuals to this admirable body of guidance, the first two concerning business and religious archives. The third one, here under review,

addresses archival problems in institutions that, one might think, should have solved them already. However, even some large North American museums still have no systematic program for maintaining archival materials.

Deiss draws on his own experiences as Deputy Archivist at the Smithsonian Institution and on those of many others to help the person faced with the task of organizing a museum archives. His discussion of fundamental procedures, with accompanying bibliography, occupies more than half of the manual. To document a museum's origin, policy, organization, function, program and other history—its archivist's chief duty—requires judicious appraisal of accumulated records. Deiss lists seven types, each of different origins within the museum, that are likely candidates for retention in its archives: Those recording activities of (1) the governing body, (2) the principal administrators, and (3) the curators; (4) those vital to efficient care and maintenance of the physical plant; (5) those relating to objects and specimens in collections, generally exclusive of any maintained by the registrar; (6) those documenting exhibits; and (7) files of curatorial information on particular objects. He argues cogently for the need to prepare and issue an "archives policy statement," and provides an exemplar in the first appendix. Samples of an inventory worksheet and an accession report complete the appendices.

The Society is to be congratulated on providing yet another authoritative but concise and inexpensive resource for a public increasingly concerned with preserving the records of its past.

Michael T. Stieber
Hunt Institute

Gould, Frank W. and Robert B. Shaw. *Grass systematics*, ed. 2. College Station: Texas A&M University Press, 1983. 416 pp., illus. \$25.00 (cloth), \$15.00 (paper). ISBN 0-89096-145-X (cloth), 0-89096-153-0 (paper).

The new edition of this work that has become a standard agrostology text far excels the 1968 first edition. Gould and Shaw have substantially improved the visual presentation of information, updated nomenclature, and incorporated significant new anatomical, physiological and paleobotanical findings. Microphotographs illustrate the distinctive features of each major type of leaf anatomy in the Gramineae: Pooid (formerly Festucoid), Bambusoid, Arundinoid, Panicoid, Aristoid and Chloroid. There is adequate explication of the latest findings on both the Kranz and non-Kranz anatomical types and their associated C_4 and C_3 physiological types of carbon-dioxide fixation. Diagrams enhance the discussion of these photosynthetic processes, and tables summarize knowledge on

the subject to 1979. Lacking, and probably desirable in a work of this scope, are hints of some other complicated, often unique phenomena that have been encountered in research on photosynthetic metabolism. For starters, the authors might simply have referred to Laetsch's 1974 review article on the subject (*Annual Rev. Pl. Physiol.* 25: 27-52). Overall, though, their discussion of the taxonomic significance of C_3 and C_4 types should adequately initiate the neophyte to this now nearly frenetically pursued topic.

The chapter on reproduction and cytogenetics is generally fine, but the reader may want to note an error that has again escaped proofreading. On page 91, the citation of the "1953" paper by "G. McClintock" should read "1933" and "B. McClintock." In the same chapter, G. L. Stebbins' famous 1950 work is cited frequently, but some may wonder why Gould and Shaw do not mention his *Chromosomal evolution in higher plants*, which offers many agrostological examples and the advantage of 21 more years of thought. Also, was it too late to include references to some or all of the papers presented at the symposium on grass systematics at the Missouri Botanical Garden in 1979, the last one attended by Frank Gould, at which he reported enthusiastically on his latest field studies of *Bouteloua*?

In the chapter on grass classification, the earlier treatment of morphological criteria has been expanded considerably. The most recent reference cited in the 1968 version had appeared in 1960; now an additional two decades of literature are represented. I especially welcomed the incorporation of Hoshikawa's 1969 contributions on the underground organs of grass seedlings.

The minuscule treatment of ecology and plant geography in the new edition disappoints one who thinks that, at the very least, some attention to W. Hartley's work on grass distribution would have given contemporary students valuable insights—for example, the studies reported in Hartley's: The global distribution of tribes of the Gramineae in relation to historical and environmental factors, *Austral. J. Agric. Res.* 1: 355-373, 1950; Studies on the origin, evolution, and distribution of the Gramineae. I. The tribe Andropogoneae, *Austral. J. Bot.* 6: 115-128, 1958; . . . II. The tribe Paniceae, *ibid.* 6: 343-357, 1958; (with Christine Slater) . . . III. The tribes of the subfamily Eragrostoideae, *ibid.* 8: 256-276, 1960; . . . IV. The genus *Poa* L., *ibid.* 9: 152-161, 1961.

These few criticisms notwithstanding, *Grass systematics* will undoubtedly remain the text of choice for most teachers of agrostology in North America, and justly so.

Michael T. Stieber
Hunt Institute

Gunn, Mary and L. E. Codd. *Botanical exploration of southern Africa*. Capetown: A. A. Balkema, 1981. \$56.00. ISBN 0-86961-129-1.

From general knowledge of world history, nearly everyone recalls that in 1487 Bartolomeu Dias sailed round the southern tip of Africa and named the Cape of Good Hope, and that ten years later a compatriot, Vasco da Gama, followed the same route and continued on to Calicut, India. Gunn and Codd begin their narrative with the voyages of these trail-blazing Portuguese. The French, English and Dutch explorers did not lag far behind, and the authors record that all of these seafarers relied on the appearance of the elongated bodies of the seaweed *Eklonia maxima* to signal the nearness of the Dark Continent's southern coast. This species was the first native South African plant to be described in Europe.

Enhancing the text are reproductions of maps by such notables as Cornelis de Houtman, who also first illustrated the "Trombás"—as the *Eklonia* was vulgarly known—and native gulls and sea creatures, too. Among their accounts of the earliest European descriptions of South African plants, the authors note that Charles de L'Escluse (1605) described as "an elegant thistle [*Carduus* species]" the first land plant to have reached Europe from the Cape. This species was actually *Protea neriifolia*, whose distinctive family would become forever associated with southern Africa.

In the early seventeenth century the Dutch were the agents most responsible for introducing South African plants into Europe, aided especially by enterprising nurserymen like Emanuel Sweert, whose *Florilegium* (1612) stands as one of the first commercial catalogues of seed plants in the West. Early Dutch settlement of the Cape allowed easy access to the region by explorers in search of new plants for the horticultural trade and for scientific study. Gunn and Codd remark the particularly fruitful period under Jan van Riebeeck, who in 1652 established a refreshment station in Table Bay for the Dutch East India Company, replete with a managed garden of edibles. Subsequent narrative recounts the further development of this Company garden and its relationships with plant collectors through the governorship of Rijk Tulbagh (1751–1771), who had settled at the Cape in 1716. Tulbagh authorized many botanical explorations of the interior and had numerous specimens sent to important European botanists, among whom were Van Royen at Leiden, the Burmans at Amsterdam, and Linnaeus at Uppsala.

After discussing the great Swede's treatises, the authors devote the nearly 330 remaining pages to an information-packed, well illustrated "Dictionary of plant collectors." The extent of the dictionary's coverage and its depth of detail are comparable to those in Ray Desmond's *Dictionary of British and Irish botanists and horticulturists* (1977).

But Gunn and Codd surpass Desmond by providing biographical essays, many quite lengthy, to accompany the vital statistics that they have uncovered.

This book ought to appeal to anyone interested in the region's flora or history, or in the history of plant hunting in general.

Michael T. Stieber
Hunt Institute

Lee, Harold. *Roswell Garst; a biography*. (The Henry A. Wallace Series on Agricultural History and Rural Studies.) Ames: Iowa State University Press, 1984. xv, 310 pp., portrs. \$12.95. ISBN 0-8138-0796-4.

It is appropriate that the Henry A. Wallace Series should include a biography of Roswell Garst. The names of Wallace and Garst appeared together repeatedly in the agricultural news of the 1930s and '40s. In 1977 Hubert Humphrey wrote to Garst, "The contributions you and Henry Wallace have made to American Agriculture in this century are unequalled by anyone I know." These contributions spanned 40 years and ranged from the introduction of hybrid seed corn in the 1930s, through the pioneering of protein-enriched cellulose for cattle feeding in the '40s, to a central role in the fertilizer revolution of the '50s and '60s, and they involved Garst in U.S. politics as well as international affairs.

Born and raised in Iowa, the richest farm state in the U.S., Roswell Garst was interested in many aspects of farming from the time he was very young. It was not until he met Henry A. Wallace in the late 1920s that he found a focal point that absorbed his interest for the remainder of his life—hybridization. Henry Wallace had been studying corn genetics and experimenting with hybrid seeds since his youth and eventually formed the Hi-Bred Corn Company. Impressed with Wallace's experiments, Garst made arrangements with him to produce hybrid seed under franchise, and then he began to "prod, push, preach, and convince Iowa farmers and then farmers throughout the Midwest and beyond that in this lay the pattern of the future." The marked increase in farm production due to a combination of hybrid seed, fertilizers and other advanced agricultural technologies caused excitement throughout the agricultural world in the 1950s and '60s. In the U.S.S.R., Khrushchev praised U.S. agriculture and western technology. This outspoken compliment evoked an invitation to the Russians by an Iowa newspaperman to send a delegation to visit the U.S. farmlands. The Russians then invited Garst to attend an agricultural show in the U.S.S.R. This was the beginning of an extraordinary period in Garst's life when his opinions and advice on farming were asked for and valued

throughout Eastern Europe and in Central and South America. The description of these travels, the people encountered and the incidents experienced is one of the highlights of the book.

Harold Lee, a professor at Grinnell College, is uniquely qualified to be Garst's biographer. As the subject's son-in-law, he has the confidence of family and friends as well as access to Garst's papers. From these sources he has produced an illuminating portrait of a flamboyant figure in the history of U.S. agriculture and a discerning study of an era. The book covers the period from 1855 to 1977. We learn about the growth of Iowa, the plight of the farmers in the 1920s and '30s, the influence of American agriculture in international affairs, and the personalities—scientists and statesmen—that dominated this period.

There are several features of the volume that are noteworthy. The section entitled "Sources" thoroughly documents the materials used by the author, according to chapter; an extensive index makes it possible to refer to laws or incidents comprehensively without having to leaf through the complete book; and the abundant photographs are enjoyable as well as instructive.

Students of agriculture, economics and history should find that this work adds usefully to their knowledge of the period, and the general reader will enjoy it as the story of a notable American family.

Anita L. Karg
Hunt Institute

Rauh, Werner. *The wonderful world of succulents. Cultivation and description of selected succulent plants other than cacti.* Ed. 2, revised. Harvey L. Kendall, transl. Washington: Smithsonian Institution Press, 1984. 164 pp., 104 pls. (8 in color). \$49.50. ISBN 0-87474-780-5.

Succulent plants fascinate people. Their diverse forms and often attractive flowers as well as the ease with which they are grown explain, for the most part, their popularity. Societies devoted to succulent plants thrive in most industrialized countries. It is no wonder that books like Werner Rauh's are welcome! Although it excludes the cacti, certainly the largest and perhaps the most popular family of these specialized plants, Rauh's treatise is as thorough as any I know on the geography, ecology, and morphology of the succulents.

Rauh describes the techniques for cultivating succulent plants, and considers 14 families of stem-succulents and six of leaf-succulents. The former category includes many species in the Asclepiadaceae, while the latter encompasses a host of genera in the widely popular Mesembryanthemaceae and Crassulaceae.

Accompanying the thumbnail descriptions of selected

species are 96 black-and-white and eight color plates, with usually six photos each. The photographs are uniformly good, many reminiscent of those found in *Exotica*, and will assist one in identifying plants belonging to most of the genera discussed. This work can be recommended to a wide audience, not least because it is taxonomically reliable. Furthermore, after surveying all the photographs, I found only one typographical error, that in plate 93(2), where "*Nomilaria*" should read *Monilaria*. Very careful eyes checked this edition. For the beginner, I would suggest supplementing Rauh's book with one like Gordon Rowley's equally competent *Illustrated encyclopedia of succulents* that includes the cacti.

Michael T. Stieber
Hunt Institute

Van Ravenswaay, Charles. *Drawn from nature[:] The botanical art of Joseph Prestele and his sons.* Washington: Smithsonian Institution Press, 1984. 357 pp., 40 figs., 95 color pls. \$45.00. ISBN 0-87474-93807.

In this carefully researched book, the author traces the life and work of Joseph Prestele (1796–1867), a member of the Community of True Inspiration who followed the faithful from their home in Germany to Ebenezer (near Buffalo), New York and then to Iowa. A lithographer, Prestele is probably best remembered—if he is now known at all—for his "engravings" commissioned by Asa Gray and John Torrey, especially those reproducing drawings by Isaac Sprague and those done to illustrate official reports of U.S. Army expeditions in the West. The correspondence between Prestele and Gray, who never met, reveals much about their characters, and Van Ravenswaay cites many passages to good effect in his well-written narrative. He also reveals that at mid-century Prestele was the first in this country to produce and sell nurserymen's plates.

Brief chapters are devoted to Joseph's sons, Joseph Jr., Gottlieb and William Henry, who shared their father's career with varying degrees of success. Copious footnotes, a glossary, three appendices (checklists of published plates for Gray's *The forest trees of North America*, pertinent U.S. Army reports and nurserymen's plates) and an index seem to have been lovingly compiled to assure the most complete record possible of the artists and their accomplishments. In addition to black-and-white illustrations, the book includes almost a hundred excellent color plates reproducing works by the Presteles.

The title of the ornamental work mentioned on page 28 is *Sammlung von Zierpflanzen* by Franz von Paula von Schrank and Joseph Prestele. The Institute's copy is dated 1819 and contains 24 consecutively numbered colored

lithographs, although most sources cite only 18. Additional lithographs by F. J. U. Prestele are mentioned under entry 7817 (L. Pfeiffer, *Abbildungen und Beschreibung blühender Cacteen*) in Stafleu and Cowan's *Taxonomic literature*, ed. 2, vol. 4. The Division of Graphic Arts at the Smithsonian Institution's National Museum of American History has some of Prestele's litho stones, transferred long ago from the Department of Botany in the National Museum of Natural History. One that I saw recently is 20" × 14" × 2" and contains images (*Acer rubrum* and *Acer spicatum* on one side, *Cercis canadensis* and *Prunus americana* on the other) for plates 20, 25, 39 and 40 in *Plates prepared between the years 1849 and 1859, to accompany a report on the forest trees of North America, by Asa Gray* (Washington, 1891).

Since *Drawn from nature* went to press, W. H. Prestele's original watercolors of native grapes, previously in the custody of Dr. John McGrew, U.S.D.A. Plant Pathologist, have been transferred to the National Agricultural Library, Beltsville, Maryland.

James J. White
Hunt Institute

Zichmanis, Zile and James Hodgins. *Flowers of the wild, Ontario and the Great Lakes Region*. Toronto: Oxford University Press, 1982. 272 pp., 255 illus. (half in color). \$35.00 Canadian. ISBN 0-19-540390-8.

This book describes and illustrates 127 plants from the southern third of Ontario. The text is by Hodgins, a Director of the Wildlands League, and the pen-and-ink drawings are by Zichmanis, a scientific illustrator with the Royal Ontario Museum. There are also numerous color photographs, by both authors.

The introduction explains the main text's standardized format in some detail, and also discusses various aspects of botanical practice. An egregious piece of misinformation appears in the explanation of a binomial: "Once this name has been agreed upon at an international botanical congress, it becomes the official scientific name, or binomial, of the species." A display of such botanical ignorance at the outset, in a work that presumes to authority in that sphere, seriously erodes confidence in the scientific content to follow.

The species descriptions that constitute the main text are arranged alphabetically by common name in a crudely literal way that is both botanically random and practically awkward. For instance, *Smilacina racemosa* (False Solomon's-seal) is 118 pages distant from its congener *S. stellata* (Star-flowered Solomon's-seal), while all the "Wild" but otherwise unrelated whatnots appear together, as do all the "Common" whatever.

The drawings are generally adequate and sufficiently pleasing, but not the outstanding examples of scientific illustration promised in the preface. Also, Zichmanis' work seems to have suffered somewhat in reproduction; we have seen one of her original drawings, and the published version does not compare favorably in its rendition of detail. With few exceptions the drawings lack floral details, so we have only brief text descriptions to portray the minute flowers of such plants as Canada Goldenrod and Common Plantain. The identities of the plants depicted in the drawings are not always clear. The illustration captioned Wild Leek (*Allium tricoccum*) actually depicts three species—*A. tricoccum*, *A. canadense* and *A. cernuum*—none of them labeled individually. In other cases there is partial labelling, and one is left to assume that an unlabeled subject is a particular species that has been mentioned in the text, as in the drawing of *Typha*. Two species are depicted there, but only one is labeled (*T. angustifolia*); presumably the second one is *T. latifolia*, the main entry. A further complication in this particular case is that the subjects are so clustered in the drawing that it is difficult to determine which parts belong to which plant.

The photographs, while brilliantly colored and generally attractive, are not all in focus, such as the one of Yellow Mandarin. A few would have benefited from some cropping—particularly that of Wild Cucumber. Such features as barns, fences, gravestones, cows and telephone poles appear often, and while some of these add to the pictures, others are decidedly intrusive. The photographers (or picture editor) seem to have been undecided about whether they wanted habitat scenes or plant portraits, and to have settled sometimes for neither.

The drawings and photographs of particular species usually complement each other, but sometimes do not; for example, neither illustration of Star-flowered Solomon's-seal shows fruits, and neither one of Greater Bladderwort gives any indication of its intriguing insect-trapping device.

The common-name index presents numerous difficulties, chiefly due to inconsistent referencing. It includes every possible permutation for some names, such as Devil's Paintbrush (Orange Hawkweed), Common Buttercup and Wild Ginger, but not for others, such as Common Mullein, which is listed only under "C"!—no help in contending with the unsystematic organization of the main text. The scientific-name index lists only the 127 main-entry species, even though numerous other taxa are mentioned and/or illustrated. Thus it offers no remedy for the incomplete labeling of illustration subjects, as well as no aid in locating any of the secondary references in the text.

Another reviewer (in *Arnoldia*, Winter 1983–1984, p. 34) has averred that this work is "likely to become the

first book I reach for when I am looking for a reference guide to wildflowers." For us, it is likely to become the first one we reach for when looking for an exemplar of misinformation, crude organization and sloppy editing packaged for the coffee table. The publisher's review process was clearly unrigorous, and the result is a superficially

pretty but seriously flawed work that fails as a reliable reference for either amateur or professional.

T. D. Jacobsen and James J. White
Hunt Institute

