

mon names on species, either by translating the Latin name into English (e.g., Variedleaf *Collomia* for *Collomia heterophylla*) or imposing common names on species based on who knows what criterion (e.g., Common *Linanthus* for *Linanthus parviflorus*). Further, the practice of trying to use common names can be confusing, as when we read that the common name for *Allophyllum divaricatum* is "Straggling Gilia." Keyers have enough trouble distinguishing *Allophyllum* from *Gilia* without common names adding to the problem. We suggest using only those common names that are unambiguous and in very common use.

Overall the effort merits applause. It is a well-needed augment to the new-ish Jepson Manual, and we would advise anyone interested in the plants of the Bay Area to get a copy. Its price is reasonable, and Sagen Press will sell it directly by mail. We would like to see similar efforts written for other regions in the state for which there is no local flora.

*Guide to Flowering Plant Families.* By WENDY B. ZOMLEFER. 1994. The University of North Carolina Press, Chapel Hill. 430 pages. Softcover \$29.95. ISBN 0-8078-4470-5.

This is a book for which plant taxonomy students and professors have been waiting. Wendy Zomlefer has produced a text that describes major flowering plant families encountered in North America, illustrates the families in detail, and on occasion discusses problematical groups and their recent systematic treatments. She follows the system of angiosperm classification delineated by Robert Thorne, whose family circumscriptions sometimes differ a bit from those of other authors (e.g., Araliaceae are included in the Apiaceae, Asclepiadaceae are included in the Apocynaceae, *Sambucus* and *Viburnum* are placed in the Adoxaceae).

The book treats in detail 115 families. Each begins with a diagnosis that stresses the features of the North American species. Following the diagnosis is a "Family Characterization" that summarizes family features, including chemical and anatomical characters. This is followed by the number of genera and species in the family, a distributional range statement, a list of major genera and U.S./Canadian representatives. Economically important members of the family are also mentioned. Each treatment ends with a commentary on the family that may deal with topics such as reproductive and pollination biology, taxonomic treatments within the family, or structures peculiar to the family. Short bibliographies that follow each family are recent.

Zomlefer includes a lucid discussion of phylogenetic systematics (=cladistics), but rather than providing a simple (or simplified) lesson that fails to convince the reader of the advantages of a cladistic approach to taxonomy, she provides a discussion of the "monocot vs dicot dilemma" from a cladistic perspective. She takes evidence from recent research that suggests that the dicots may not be monophyletic, and uses this paradigm to teach the fundamentals of phylogenetic systematics. The result is a concise, non-threatening, readable presentation of the topic that all botanists should read.

It's hard to imagine a book where a chapter on principles of cladistics is followed by one on observing, dissecting, and drawing flowering plants—but here it is. Zomlefer does not simply grace the reader with her drawing talent—she explains how to see plants and how to draw them. Zomlefer is an accomplished technical illustrator, and her drawings of the families in the book help illustrate important features. While the line drawings are not as showy as the colored figures in Heywood's *Flowering Plants of the World*, their precision will likely render them of greater use to readers.

Botanists who are interested in the latest taxonomic research, particularly in phylogenetic relationships among families, will appreciate Zomlefer's careful, articulate discussions of problematical family relationships. For example, her treatment of the



Lamiaceae and Verbenaceae includes 1) a table comparing the two families as they are circumscribed in the book, and 2) a branching diagram illustrating the relative positions of groups of Mints and Verbs. This explanatory approach allows the reader to understand the reasoning behind statements of relationship, rather than having to accept the dogma of relationships that exists in many taxonomic texts.

There is a richly illustrated glossary at the end of the book, along with one appendix that covers Cronquist's scheme of family relationships, and a chart summarizing the characteristics of the families covered in the book. The latter will be especially appreciated by students.

The only problem we had with the book is based on our western North American perspective. We are dismayed that the Hydrophyllaceae, Garryaceae, Fouquieriaceae, and Limnanthaceae were not included. We were also disappointed that the "little aquatic monocots" (e.g., Potamogetonaceae, Zanicelliaceae, Zosteraceae, Hydrocharitaceae, Juncaginaceae) were left out—all the more dismaying because Zomlefer's drawings of these families would be a great aid to those of us who are not aquatically-minded. We hereby make a plea here for future editions to include families that are important in the west, even if they aren't well-represented in the east.

A plant taxonomy course where family relationships are a component is sure to benefit from Zomlefer's book. It does more than list characters—it stimulates interest. The book will also serve professional and lay botanists as a reference on family characteristics and relationships. To be sure, as systematic research continues to resolve relationships among families, parts of this book will become dated. Nevertheless, Zomlefer has provided a first step toward a modern text in plant taxonomy. Finally, it is inexpensive, a bargain at less than \$30.

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*Revision of the Genus Sambucus. Dissertation Botanica*, vol. 223, pp. [i–ii], 1–227–[256]. By RICHARD BOLLI. 1994. From E. Schweizerbart'sche Verlagsbuchhandlung, Johannesstrasse 3A, D-70176 Stuttgart 1, Germany. Softcover US\$45.51. ISBN 3-443-64135-0.

This new worldwide monograph (the work is much more than a mere "revision") on *Sambucus* uses morphology, anatomy, ecology, karyology, and biochemistry to recognize nine species (*S. ebulus* with 2 subspp.; *S. wightiana*; *S. adnata*; *S. gaudichaudiana*; *S. australasica*; *S. javanica*; *S. nigra* with 6 subspp.; *S. australis*; *S. racemosa* with 2 var.), eight subspecies, and two varieties. Bolli reduces some commonly accepted species to subspecies or varieties. For instance, relevant to *The Jepson Manual's* (1993) treatment of Californian taxa of *Sambucus*, according to Bolli *S. melanocarpa* becomes *S. racemosa* var. *melanocarpa*, *S. mexicana* becomes *S. nigra* subsp. *canadensis*, and *S. racemosa* var. *microbotrys* (this is not in Bolli's synonymy) and var. *racemosa* become *S. racemosa* var. *racemosa*. Bolli's two evolutionary scenarios both postulate "herbaceous *Sambucus* . . . , probably having evolved in Central Asia, . . . to represent the ancestral group" leading "independently" to "the woody taxa of both the Far East and the Western Hemisphere." *Viburnum* and *Adoxa* seem most closely related, but Bolli favors Sambucaceae excluded from Caprifoliaceae and Dipsacales. This important dissertation done at Zürich should not be overlooked due to the rather low circulation of *Dissertationes Botanicae*.

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