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Families of Flowering Plants of Southern Africa. Herbert Parkes Riley. 269 pp. illus. University of Kentucky Press, Lexington, 1963. \$14.00.

This volume provides an excellent introduction to the plant families of southern Africa. It will be of particular value to visitors to South Africa who have botanical and horticultural interests and who are anxious to acquaint themselves with the flora but do not have the necessary literature or time to assemble this information. Here it is self-contained in one well prepared book.

In the preface the author states:

This book is not a flora or a manual. It is a description of the families of flowering plants that are found in Southern Africa and contains material that should be of value to a taxonomist whose interests are not restricted simply to a given local region, to a cytogeneticist, and to an economic botanist, and perhaps to anyone whose major concern is Southern Africa in any of its aspects.

The area included by the term southern Africa is roughly one-third of the continent and extends southward from a line across Africa along the northern boundaries of Angola, Katanga, and Northern Rhodesia, and on to the Indian Ocean approximately along the southern boundary of Tanganyika. The area covered is about the size of the United States and includes many different vegetation types and floristic groups.

There are numerous valuable features of the publication. The introduction contains clear discussions of the political divisions, the physiography, and—of particular value—the vegetation regions. Each of these discussions is the essence of extensive studies in detail by other authors, and each presents data found otherwise only in numerous scattered journals.

Following the introduction are the plant family descriptions. Quoting from the author:

The descriptions of the various families of flowering plants that grow in Southern Africa comprise, first, a brief statement of the nature of the family, including its common name in English, its habit, the approximate number of genera and species that have been recognized, the continents or oc-

asionally the countries in which the family is found, the habitats if they are just a few and are rather specialized, and the Afrikaans common name, if known.

Two very valuable features in the descriptions are the inclusion of chromosome numbers, when known, and the economic uses of genera or species. Medicinal and 'black magic' uses by the natives are reported and constitute intriguing additions in the descriptions. For example: "The young Zulu men also dry the roots of *Pelargonium aconitifolium*, grind them to a powder, mix them with hippopotamus fat, and rub them on their face when courting."

The families are illustrated by 144 color plates of which the majority were taken by the author. It is regretted that in a few instances the reproductions deviate considerable from the true colors. Even so the color illustrations add much to the value of the publication. The carefully prepared index includes botanical, English, and Afrikaans plant names as well as subject headings. It facilitates access to the large and diverse amount of information presented. I believe that this book will be welcomed by anyone interested in the fascinating plants of southern Africa.

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Bomenboek voor Suriname. J. C. Lindeman and A. M. W. Mennega. 312 pp. illus. Dienst's Lands Bosbeheer Suriname, Paramaribo, 1963. 12 gld.

Tropical American botany has been greatly enriched with this book. One can immediately perceive the extraordinary amount of field work and laboratory investigation that underlies it. The modest explanation of the book's purpose—" . . . to provide all persons interested in the tree and wood species of Surinam with a simple means to find the name of a given tree"—obscures the wealth of data of use to taxonomists, phytogeographers, economic botanists, and foresters.

The authors consider 186 genera of trees. Each genus has a description and general notes about its wood and uses. For each of the 405 species discussed, these and other

data (bark characteristics, range, ecology, etc.) are much more detailed. Common and Indian names are recorded. Very excellent line drawings (by W.H.A. Hekking) of 94 principal species and 96 photographs of cross sections of the wood (X10) are grouped at the end of the book; in the text, there are, in addition to a coloured frontispiece, 16 black and white plates showing the habit of trees. Line drawings at the beginning of the book clarify the terminology employed for leaf shape, floral parts, branching habits, wood anatomy, etc. Of the greatest importance, however, are the keys: one to determine the trees with leaf and twig characters and one using wood characters visible with hand-lens. These are exceedingly complete and certainly will be of unlimited utility in field work. A list of 62 works consulted in the preparation of the *Bomenboek* or of value in its use is appended. An index of scientific and one of common and native names are valuable adjuncts.

This book, which appeared also in *Mededelingen van het Botanisch Museum en Herbarium van de Ryksuniversiteit te Utrecht*, No. 200 (1963), has been enthusiastically welcomed by specialists and others working in the neotropical flora. The authors are indeed to be highly complimented on a most meticulous, novel and utilitarian contribution.

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The Ageless Relics. The Story of Sequoia.

Norman Taylor. 115 pp. illus. St. Martin's Press, New York, 1962. \$3.95.

Taylor is one of that small group of American science writers that has contributed outstandingly in lessening the gap between science and the public. His more than a dozen books on botanical and horticultural topics are now enhanced with this, the first popular book devoted exclusively to the sequoia tree. It is highly readable and factually sound, truly, as the jacket states, a "unique blend of scholarship and romance." The photographs add much to both the pleasantness and value of the book. St. Martin's Press is to be congratulated on

producing a volume of such unusual technical quality.

The writer has woven an interesting fabric from clever handling of data concerning the botanical origin, the taxonomic and nomenclatural problems, physical characteristics, and recent history of sequoia. The scope of the book may be appreciated by the titles of the eight chapters: "The Big Tree and the Gold Rush"; "Greed and the Big Tree"; "The Big Trees in the Sierras"; "Before the Dawn of History"; "The Redwood"; the Big Tree in New York and London; What's in a Name?; Where They can be found. A useful bibliography is offered at the end of the volume. There are many—from botanists and horticulturists, park and conservation specialists to school children and people who just like to read a good book on a worthwhile topic—who will find *The Ageless Relics* . . . a most welcome contribution.

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The Organic Constituents of Higher Plants: Their Chemistry and Interrelationships.

Trevor Robinson. 306 pp. illus. Burgess Publishing Company, Minneapolis, 1963. \$6.75.

This is a chemistry book written for biologists. It is addressed to workers in the plant sciences who, although not chemists themselves, must deal with a variety of chemical problems in their everyday work. Professor Robinson takes the view that the chemical information needed by these biologists is not necessarily the same as that needed by a chemist. The results would not excite a chemist but should prove to be quite useful to many biologists. Each chapter considers a separate group of related compounds. An introduction to the chemistry of each group, a brief discussion of pertinent qualitative and quantitative methods, names of plants known to contain the chemicals, and biosynthetic pathways are all presented in synoptic fashion. An up-to-date but not comprehensive bibliography provides quick access to the literature on any of the subjects in the book.