

Plant Classification

By LYMAN BENSON. Boston, D. C. Heath and Toronto, Copp Clark, 1957. Illus., 688 p. \$10.50.

Here is a rather unusual way to start a textbook on plant classification: "In the 1880's the Apaches were on the warpath. . ."

The book is also remarkable in a number of other ways, the most obvious being the abundance, variety and attractiveness of the excellent illustrations.

This volume is designed primarily as a textbook for a taxonomy course in any North American university and should serve this purpose very well indeed. It is also a good reference book on the families of vascular plants and on the main floristic regions of North America, the central prairies and steppes excepted. Every plant taxonomist will also be interested to know that Dr. Benson offers in his book a new classification of the families of vascular plants. Some 333 families are recognized, 260 of dicotyledons, 46 of monocotyledons, 12 of gymnosperms and 15 of pteridophytes. The dicotyledons are subdivided into *Thalamiflorae*, *Corolliferae*, *Calyciflorae*, *Ovariflorae* and *Amentiferae*, with the *Ranunculaceae* as the first family of *Thalamiflorae*. This subdivision is strongly reminiscent of De Candolle and is a bit artificial as it brings together various evolutionary levels rather than evolutionary lines.

The book is divided into six sections as follows: Plant Identification, Flowering Plants, Gymnosperms, Pteridophytes, Plant Associations, and Appendix.

The first section on plant identification is very short, but it is supplemented here and there by various chapters on the identification of plants within each of the major groups treated. Also given is a list of the major floras and manuals on the plants of North America.

The section on flowering plants comprises first a series of chapters of descriptive botany and terminology, then the keys and enumerations of the families. Each family is described and briefly discussed and about half are illustrated. There follows an excellent chapter on plant collecting and the preparation of specimens for preservation in herbaria. The next chapter gives perspective to the book: it deals with evolution, a brief survey of the development of life, including animals, on the planet, embryology, plant distribution, genetics and the factors influencing the development of

new taxa. Another chapter discusses taxonomic characters and their evolution. The classification of families is then given full treatment in three chapters, first the old artificial systems, then the recent natural systems, and last a justification of the classification adopted in the present textbook.

In the third and fourth sections the gymnosperms and the pteridophytes are given a treatment parallel to that accorded to the flowering plants.

Section five subdivides North America into nine floristic regions. Each is briefly described and discussed. Lists of characteristic species are given for some 30 floristic types. In most cases these lists are limited to the woody elements of the flora.

The appendix contains suggestions for the best collecting season in each of the floristic regions described; publications of the new names and taxa necessitated by the new arrangement of families, (for competing names see Bull. Soc. bot. Fr. 103: 492-494, 1956); a botanical glossary and a thorough index of the taxa and subjects mentioned in the text.

This is an outstanding textbook for a North American college or university and a must for every taxonomist the world over.

B. BOIVIN

On the Trail of Vanishing Birds

By ROBERT PORTER ALLEN. Toronto, McGraw-Hill Co., 1957. Photographs, 251 p. \$5.50.

It is a moot question whether, in the scheme of things, the preservation at all costs of a species on the brink of extinction is of fundamental importance. Except in duration, the cycle is definite and unalterable: the coming into being, the being, the cessation of being. Apart from all sentimentality, one valid reason for preservation exists among a few, the opportunity that the precarious situation of the vanishing species offers to discover those peculiar factors upon which their existence ultimately depends and which otherwise might be missed or hard to find. The author has grasped this opportunity and so has made outstanding contributions to our knowledge of life and the histories of the Roseate Spoonbill *Ajaia ajaja*, the Whooping Crane *Grus americana*, and the Flamingo *Phoenicopterus ruber* in particular.

The book is not a bird book in the ordinary sense, nor is it an ornithological work. It is an account of the author's personal life and his adventures while he did his research on



Boivin, Bernard. 1957. "Plant Classification, by by Lyman Benson [Review]." *The Canadian field-naturalist* 71(3), 158–158. <https://doi.org/10.5962/p.341728>.

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