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978-0-521-67877-3 - Practical Plant Identification: Including a Key to Native and Cultivated Flowering Plants in North Temperate Regions

James Cullen

Frontmatter

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Practical Plant Identification

Including a Key to Native and Cultivated Flowering Plants in North Temperate Regions

Practical Plant Identification is an essential guide to identifying flowering plant families (wild or cultivated) in the northern hemisphere. Details of plant structure and terminology accompany practical keys to the identification of 318 of the families into which the flowering plants are currently divided. Specifically designed for practical use, the keys can easily be worked backwards for checking identifications. Containing descriptions of families and listings of the genera within, the book also includes a section on further identification to generic and specific levels.

A successor to the author's *The Identification of Flowering Plant Families*, this new guide is fully revised and updated, and retains the same concise, user-friendly approach. Aimed primarily at students of botany and horticulture, this is a perfect introduction to plant identification for anyone interested in plant taxonomy.

James Cullen is Director of the Stanley Smith (UK) Horticultural Trust. He is also holder of the Royal Horticultural Society's Gold Veitch Memorial Medal, which is awarded to people who have helped in the advancement and improvement of the science and practice of horticulture.

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PREFACE

This current book is a development of ideas put forward in the four published editions of *The Identification of Flowering Plant Families* (1965, 1979, 1989, 1997). The modest success of this book, and its persistence in print for such a long period, has led me to rewrite it completely, taking account of relatively recent developments in the recognition of flowering plant families.

Plant taxonomy is a free and unregulated subject, open to contributions from researchers and students of all kinds; because of this a vast range of opinions co-exist at any one time and to the casual observer the situation may appear chaotic. However, at any time there is a general, unregulated and undefined consensus as to what the taxonomic system should be. This consensus, which is expressed in the use of the various levels of the taxonomic hierarchy in Floras, revisions and other studies involving taxonomic practice, slowly changes in response to new ideas. Over the past 15 years, new ideas of what the family level means have become current: present-day authors are happy to recognise more groups as families than was the case 40 years ago, when the first edition of *The Identification* . . . was published.

The aim of the book is to provide a means of accurate identification of the flowering plant families native in north temperate regions, and to indicate how to proceed to identification of the genera and species; the assumption is made that the user has a general knowledge of plant structure, but is otherwise not particularly expert at identification or taxonomy. The teaching of plant structure and basic classification (and the familiarity with the basic literature) has declined considerably over the past

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40 years while the rise of other disciplines in botany has continued, so that there is now a large population of students, scientists and others who may need the means for accurate plant identification, but who haven't the experience to do this without help. This book is intended to provide at least the first stage of the process.

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This book is the product of many years' study and improvement on the basis of advice and information received from many sources. In its earlier format (as *The Identification of Flowering Plant Families*, edns 1–4) I acknowledged the help of very many botanists who had helped with the correction of wrong or misleading facts. These botanists are too numerous to list individually; I hope they will accept this general acknowledgement. In the preparation of all these editions I made extensive use of the collections at the Royal Botanic Garden, Edinburgh, and am grateful to all the staff there, especially Sabina Knees and Suzanne Cubey, who provided both botanical and general assistance. In the preparation of the book in its current format I have made extensive use of the collections at the Cambridge University Botanic Garden; I am equally grateful to all the staff there, especially Professor John Parker, the Director, and to the many garden trainees and students who have attended the Botanic Garden's Summer Taxonomy Course over the past 10 years.

The illustrations used in this book were originally prepared for the second edition under the earlier title by the late Rosemary Smith of RBG Edinburgh.

The original idea for the book came from the late Professor Peter H. Davis of the Department of Botany at Edinburgh University, and he was the senior author for the first three of its earlier editions. My debt to him is enormous.